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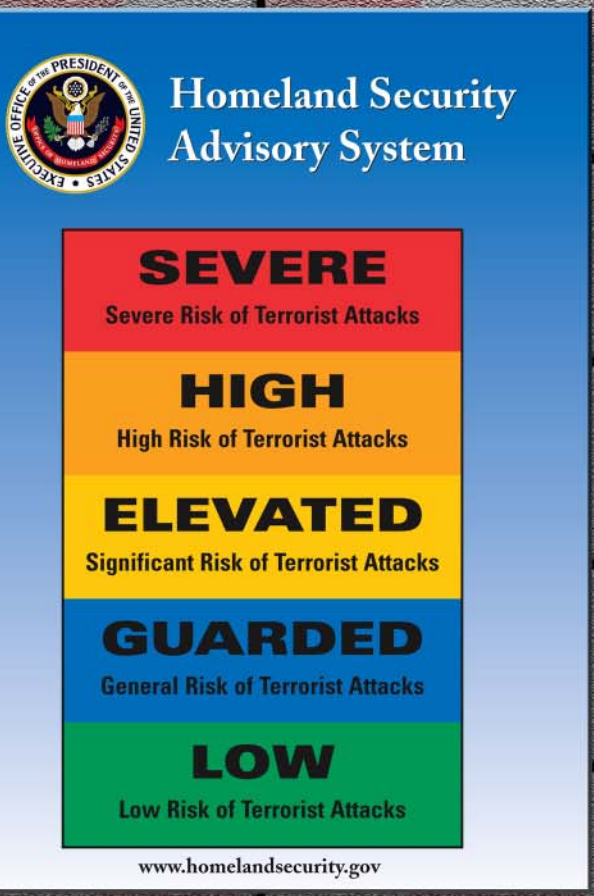

HOMELAND DEFENSE

Capabilities of the Uniformed Services in Securing and Defending Our Nation

JCOA-LL

Joint Center for Lessons Learned (JCLL) has changed to Joint Center for Operational Analysis and Lessons Learned (JCOA-LL).

Message From the Director

BG Anthony A. Cucolo III, USA
Director, JCOA-LL

I was at the Pentagon serving on the Joint Staff on 11 September 2001…not even close to where the plane struck the building; wondering how to help. As a career warfighter, I cannot think of another time when I was more frustrated: present at a large-scale attack and unable to do anything to those on the offense.

Everyone reading this bulletin knows in the aftermath of 9/11, homeland security has been elevated to the top of our national priorities. Extensive changes are taking place within the federal government to increase the long-term safety of all Americans at home and abroad. Incredible adjustments are being made in the Intelligence Community. Budgets and resources are being realigned. The newest Cabinet-level department, the Department of Homeland Security (DHS), and five other Cabinet departments are expected to expend nearly all of the roughly $50 billion budget for homeland security in fiscal year 2005. DHS's components have the lead in 37 of the 43 initiatives in the President's Homeland Security Strategy.

While the military has experience in working with a wide array of agency partners in the protection and defense of our nation, this is clearly not a conventional fight. There is little doubt this war is driving the Services work in new ways with new partners in new relationships. What was once perhaps a "marriage of convenience" between the military and federal, state, other civilian agencies, and first responders for disasters or short-duration events, now becomes a prerequisite for victory – and survival.

New partners, new relationships, and of course, redefined lexicon: For clarification, ***homeland defense*** is a term that generally refers to protective **measures and actions undertaken against external threats** to this country and its interests abroad. Whereas ***homeland security*** is the more encompassing and widely understood term that generally refers to **preventing, pre-empting, or responding to threats within our borders**.

New partners, new relationships, and proficiency in execution of security and defensive measures, tasks and responses – this means training, rehearsals, collaborative communications, and a willingness to fight together. It also means we have to understand each other's organizational capabilities and limitations. To that end, we'd like to contribute (in a small way) with this edition of the bulletin.

Please consider this particular bulletin a handy desk reference on some of these critical partners. Each partner represents a unique capability and perspective, and each has a role in this fight. If 9/11 taught us anything, it is that each day without improvement in our vigilance or readiness is time lost to the enemy. I hope you find this edition useful.

ANTHONY A. CUCOLO III
Brigadier General, U.S. Army
Director, Joint Center for Operational Analysis and Lessons Learned

JCOA-LL UPDATE

Colonel Jeffery A. Moragne, USAF
Acting Deputy Director JCOA-LL

A. Happy New Year! To our deployed warriors in harm's way, thank you for your sacrifices. We look forward to the day when you and your families celebrate your homecoming. Until then, be safe and use those tactics, techniques, and procedures you know will win the fight.

B. Since our last published article, the Director of JCOA-LL has defined four "Lines of Operation (LOO)." These LOO provide a guide for our active collection and aggressive analysis functions. They are based upon the Secretary of Defense "Top" warfighting priorities. By perusing these LOO, we are demonstrating how JCOA-LL supports the Department of Defense (DOD) as well as strives to ensure we help frontline warfighters. Our new LOO are:

- **Securing and Defending the Homeland:** The objective is to promote a higher level of integrated behavior among all actors to better support Northern Command's mission; and promote best DOD practices that can be applied with federal and state interactive efforts.

- **Execution of Trans-national Counter Insurgency (COIN) at the Operational Level:** The objective is to identify and develop joint task force (JTF)-level products and processes that support operational success in COIN.

- **Transition to and from Hostilities (Security, Transition, and Reconstruction):** The objective is to determine best practices for future JTF commanders; and give best military advice to those in the US Government in regard to the components and execution of a JTF-like capability for a post conflict environment.

- **Partnership with Joint Allied Lesson Learned Center (JALLC) and ABCA (nations of America, Britain, Canada, and Australia):** The objective is to coordinate with JALLC to help member nations achieve success while gaining insight into improving execution of multinational operations; and share best practices and lessons learned with the ABCA nations.

C. We have also transformed our organizational structure. The newest divisions in our organization are:

- **Operations Division** which is comprised of three groups –

  - Team Leads – 06s and Senior 05s that lead our deployed teams.

  - Operations Cells (command and control; intelligence, surveillance, and reconnaissance (ISR); effects; and support) – provide subject matter experts for teams.

  - Bridge Team – provide team members for total product management from collection through issue development, vetting, publication, and solution development.

- **Studies and Analysis Division** – The division consists of a division chief, 2 military action officers, and 14 non-military personnel. Their task is to develop findings, professionally edit and formally vet the findings, and then publish the findings for dissemination to and utilization by the entire joint service community.

- **Transformation Division** – The division consists of a division chief, a government service employee, 2 military officer branch chiefs, and 10 non-military contractors. The division is responsible for aggregating JCOA-LL's lessons learned written products, along with those submitted from the combatant commands, Services, and DOD combat support agencies (C/S/A). Once aggregated, these lessons learned "findings" are integrated through further analysis in order to develop solutions that

address capability shortfalls for the entire joint Service community.

D. JCOA-LL is pursuing several initiates that support providing the warfighter the best available lessons learned through capable information/knowledge management tools.

- **KM/IT Collaboration Working Group:** The purpose of this Knowledge Management/Internet Technology (KM/IT) initiative is to generate joint community dialogue on how to best share the unique lessons learned knowledge that each individual and organization possesses. The Joint Staff/J7 is planning to co-host a working group on 9 Feb at the Joint Warfighting Center.

- **JCOA-LL Support of Real-World MRX (Mission Rehearsal Exercises):** This initiative provides organizations that are training to conduct real-world operations with the most up-to-date lessons learned information/knowledge. This is information/knowledge that JCOA-LL has gained by their active involvement in support of joint commands engaged in real-world theaters of operation.

E. From the Joint Staff (JS), three initiatives are taking center stage. First, the new CJCSI 3150.25 is in its final stages of staffing. Second, they have begun creating and fielding an innovative Joint Lessons Learned Handbook. They expect this initiative will provide a unique opportunity to highlight the business practices of the community of interest and make them available for everyone. Finally, the JS J7 is beginning to plan the next World Wide Joint Lesson Learned Conference. This will occur sometime around May 2005; somewhere in the Washington, D.C. area. For more information concerning these initiatives, we recommend you call LTC Vince Price, Joint Staff J7.

"This much is certain: From this experience, our experience in Afghanistan as well, we're learning lessons that will affect how the United States of America, how the Department of Defense and the services will organize, will train, and will equip—lessons that will impact budgets and procedures, training and doctrine, and affect the future success of our country for many years to come. So let there be no doubt: With the liberation of Iraq, you have transformed the country. But how you did it will help transform how we defend our country in the 21st century."

Secretary of Defense Donald Rumsfeld,
April 28, 2003, Qatar

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Organizing NORTHCOM for Homeland Defense

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The United States is a theater of operations in the War on Terrorism. The Commander of Northern Command (NORTHCOM) is the operational commander for the defense of the United States (except Hawaii). The Homeland Defense mission of NORTHCOM has three parts: military defense (air, space, missile, and maritime), force and infrastructure protection, and support to civil authorities. Units and headquarters devoted to the military defense missions are organized into functional commands. This article discusses how NORTHCOM can organize into area commands for its protection and civil support missions.

Homeland defense is not new. During World War I, the War Department used Army troops and governors used state defense forces to guard against sabotage, labor strife, and subversion. During World War II, Army corps area commands protected war plants and other key targets against sabotage and suppressed civil disorders that threatened war production. Many thousands of Army and state guard troops were devoted to internal defense and protection of the war industrial base during World War II.[1] During the Cold War, the nation was threatened by a massive Soviet nuclear attack, which would have had devastating effects on the people and society of the United States. Strategic offensive forces were maintained to deter such an attack, and a civil defense program was established to deal with the consequences of that attack if deterrence failed.[2] Fortunately, the massive nuclear strike did not happen. Today, the threat is terrorism, and the attacks are both likely and lethal, particularly if weapons of mass destruction (WMD) are used.

In simpler times, when the Army organized for major conventional wars, it divided the theater of operations generally into a combat zone and a rear area. Because the war was linear, there was a clear distinction between combat units up front and support units in a rear area. While the support units were secure from enemy artillery fire and air attack, they were vulnerable to raids and ambushes by enemy forces and in some areas, insurgents. So measures had to be taken to provide for rear area security. Doing this was complicated because the support units were a mix of different kinds of units in different organizations and different functional chains of commands. Within a given logistical base area, there would be support battalions, companies, detachments, and trains from several combined arms organizations and logistical organizations co-located for convenience and security. Since these disparate support units did not have a common commander in their primary roles, the Army created the rear area operations center (RAOC) to be in charge of security and repelling attacks and raids.

A RAOC is a headquarters commanded by a colonel with a staff trained and organized to plan, prepare, rehearse, and inspect the measures taken by a set of support units locating within a designated area. The RAOC establishes contact with the units in its area, prepares a coordinated defense plan for the area, conducts training and rehearsals for the commanders and staffs of units in the area, and inspects the readiness of the units to assure they are prepared and compliant with rear area security guidance. When an attack is threatened or occurs, the RAOC assumes operational control of the units in its area to conduct the defense of the rear area. In current campaigns in Afghanistan and Iraq the RAOC concept has been transformed to adapt to the interspersion of combat and support units in a non-linear combat with insurgents. But the idea of providing security on an area basis remains valid. It is in fact a very useful model for organizing the defense of the United States against terrorist attacks.

The Department of Defense (DOD) should create for NORTHCOM an area-based virtual chain of command for emergency preparedness and response modeled after the RAOC. An area-based chain of command would supersede the traditional organizational model in which Service component commands are the major subordinate headquarters reporting to NORTHCOM. Instead, the entire country would be organized from the bottom up into joint emergency area commands reporting through intermediate headquarters to NORTHCOM.

Establishing an emergency chain of command will require a new form of command authority called Emergency Command Authority (EMERCOM) that authorizes these commanders to do the following for designated DOD units, personnel, installations, activities, and key assets within their respective areas:

- Initiate and supervise all protection and preparedness measures.

- Plan for emergency response operations to deal with the consequences of emergencies, particular attacks using WMD.

- Conduct training, exercises, and rehearsals for protection and emergency response operations.

- Inspect and report readiness for protection and emergency response.

- Collaborate closely with other Federal agencies, local and state authorities, and private organizations on civil support.

- During emergencies, assume operational command of DOD elements in the emergency chain of command, and conduct protection and response operations.

The emergency chain of command will be an operational chain that exists parallel to the administrative chain of command, consisting of the military Services and defense agencies.[3] The emergency chain of command will be responsible dealing with emergencies for which force protection and civil support is necessary. It will include mostly non-expeditionary units and activities of the military Services and defense agencies that provide Title 10 support for the expeditionary units that deploy to wage war overseas. These include units that up to now have not been considered in civil support planning, such as installation garrisons, depots, training centers, and other non-deploying units. These units comprise about one-third of the DOD's total military and civilian personnel. Expeditionary units under the operational command of Joint Forces Command (JFCOM) and intended for allocation to the other unified commands will not routinely be included in the emergency chain of command. However, expeditionary units that are earmarked for protection and response missions in the United States will be included. If necessary, NORTHCOM may obtain additional units for homeland defense operations from JFCOM as directed by the President.

The emergency chain of command will include all continental United States (CONUS) facilities and personnel of the 22 defense agencies, which have a collective strength of over 110,000 personnel and account for about 20 percent of DOD's budget dollars. Because of the Service-oriented nature of the traditional organizational concept, these resources have been largely omitted from previous civil support planning.

Under this approach, NORTHCOM will establish emergency joint area commands at the sub-state, state, regional, and CONUS-wide levels. Additional costs incurred will be minimal because these commands will be established by assigning the additional duty of planning, preparing, and conducting protection and civil support operations to existing administrative headquarters.

The critical element of the emergency chain of command is at the state level where there is a confluence of state, DOD, and non-DOD federal interest. DOD will appoint for each state and territory a federal military commander responsible to NORTHCOM for force and infrastructure protection and civil support. This state area commander will have EMERCOM over all DOD installations, activities, and units in a state or territory. State area commanders will be responsible for planning, preparing, and rehearsing protection and response actions in the state in coordination with state officials, Department of Homeland Security (DHS), Department of Justice (DOJ), and other federal agencies. When there is warning of an attack or an attack occurs, the state area commander will take command of DOD elements in the state and conduct protection and response operations using them as necessary and appropriate. This provides unity of command over all DOD elements in each state for these missions.

State area commands already exist and need only to be expanded to include additional elements of DOD. Under the leadership of the National Guard Bureau, joint state area commands have been established in each state to be responsible for National Guard missions relating to Homeland Defense. State military headquarters have been organized to include a joint state area command headquarters that unifies Army and Air National Guard elements. The joint state area command headquarters is commanded by a National Guard general officer that is or can be dual-hatted as a federal officer and a state officer for this purpose. Designating these officers as the DOD state emergency commanders provides the state level area commands needed for the NORTHCOM emergency chain of command.

At the sub-state level, DOD should appoint a senior DOD official (military officer or civilian executive) as

the person in charge of all DOD emergency planning and operations for a metropolitan area, county, or multi-county region. The size and shape of the sub-state area command depends on the size, population, and natural boundaries of the localities in the state. For large cities, it may be sensible to include several counties in the metropolitan area around the cities. For rural areas, it may be sensible to combine into one sub-state area several counties that share a distinct focal point, such as a river valley. The delineation of sub-state areas should be done carefully and in coordination with local and state governments and the DHS to assure congruency with sub-state areas adopted by other agencies involved in homeland security.

The commander of each sub-state emergency area will normally be the commander of a major DOD installation in the locality. He or she will be the DOD representative in area-wide planning groups and the DOD point of contact with representatives of DHS, local government officials, and private organizations. These commanders will be responsible for coordinating force and infrastructure protection efforts among DOD facilities in the area, and with non-DOD elements as appropriate.

The Washington, D.C. Metropolitan Area is already organized as a sub-state (or in this case extra-state) emergency area command. The Metropolitan Council of Governments represents the city of Washington, D.C. and adjacent counties and cities for purposes of emergency preparedness and response. DHS has appointed a special coordinator for this area to represent non-DOD federal agencies. DOD has established a joint task force, whose commander exercises emergency command authority over a variety of military installations in the area for emergency planning and response. The leaders of the three groups meet to coordinate plans and preparedness, and to conduct exercises. This area can be a model for other sub-state emergency areas.

Above the state level, there are two major options for organizing the emergency chain of command between the joint state area commands and NORTHCOM Headquarters. Some intermediate headquarters are helpful because NORTHCOM would find it difficult to deal with 53 separate subordinate headquarters. There should be at least some regional headquarters and perhaps one or more operational headquarters that would act as major subordinate commands to NORTHCOM itself.

One way to do this is shown in Figure 1. In the Option One version of the emergency chain of command, groups of the 53 state area commands are each supervised by one of the ten Army Reserve regional support commanders. The ten Army Reserve regions are congruent with the ten Federal Emergency Management Agency (FEMA) regions, which facilitates coordination with DHS on a regional basis. To provide another level of emergency command, the ten regional emergency commands would report to either the First US Army (Atlanta, GA) or the Fifth US Army (San Antonio, TX), and these two headquarters would report directly to NORTHCOM. Each of the intermediate headquarters in this option is a non-deployable unit engaged primarily in supervising and training reserve component units in their respective areas. They can be assigned an additional duty of serving as joint emergency regional command headquarters with little additional cost.

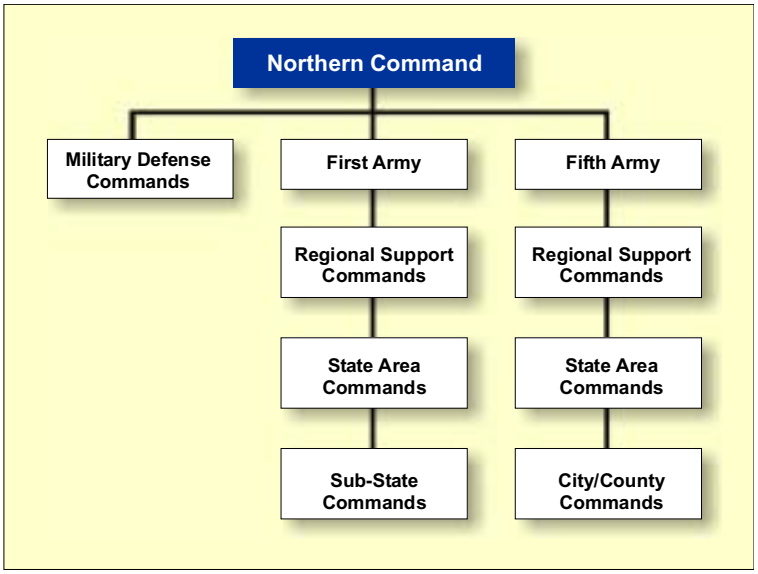

Figure 1. Option One for NORTHCOM Emergency Chain of Command

Another way to do this is shown in Figure 2. In this option, the National Guard Bureau is designated a sub-unified command in the emergency chain of command reporting directly to NORTHCOM and assigned the responsibility for planning, preparing, and conducting all protection and civil support operations in the United States. The National Guard Bureau will be assigned

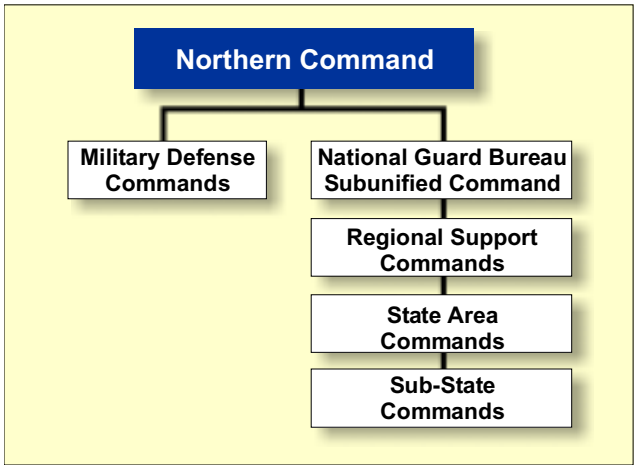

Figure 2. Option Two for the NORTHCOM Emergency Chain of Command

an operational role in addition to its administrative role. This arrangement will allow NORTHCOM to focus on its overall mission, while the National Guard Bureau is responsible for the detailed oversight required to prepare US-based DOD elements for protection, preparedness, and emergency response.

Either of these options would fit into an overall National Chain of Collaboration in which the Secretary of Defense works with the Secretary of Homeland Security (representing other Federal agencies) and the Governors, representing the states and localities. Figures 3 and 4 show the relationships among various levels of government with the elements of the DOD emergency chain of command. In Option One, the DOD-DHS link is between NORTHCOM and the Emergency Preparedness and Response (EP&R) Directorate of DHS. In Option Two, the link is between the National Guard Bureau and the EP&R Directorate of DHS.

This article proposes a way for NORTHCOM to organize to accomplish that part of its homeland defense mission that involves protecting DOD and other assets and providing support to civil authorities in the United States. In emergencies, this solution will make available for use some of the resources at the installations and activities of the Services and defense agencies in the United States. It preserves the availability of expeditionary units held by JFCOM for use by other unified commanders. It also preserves the integrity of the DOD chain of command for domestic operations. Further, it assigns responsibility for conducting a response to commanders who plan the response, know the situation and the personalities involved, and do not have to take time to move to a new area and get organized. Finally, it provides a way for emergency preparedness measures to be coordinated at the sub-state, state, and regional levels within all DOD elements; and in collaboration with DHS, other federal agencies, and the states and local governments. Given the necessity for coordinated, proactive action when a terrorist attack occurs, it makes good sense to

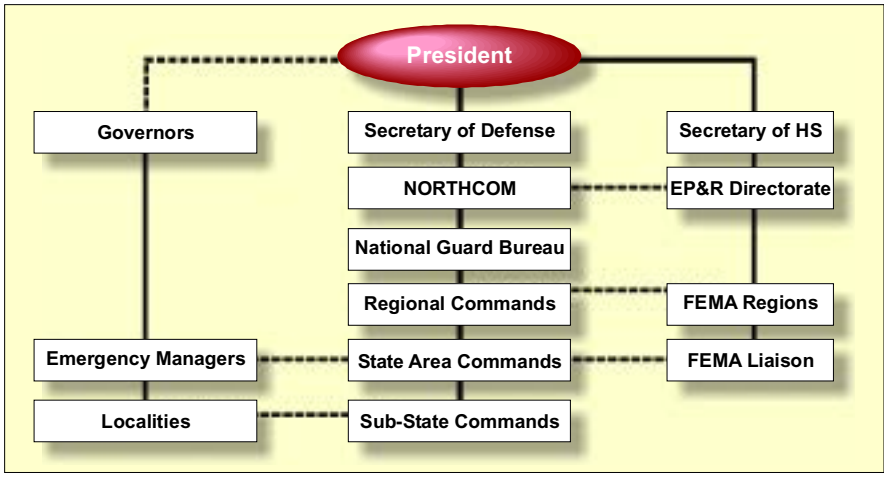

Figure 4. The National Chain of Collaboration for Option Two.

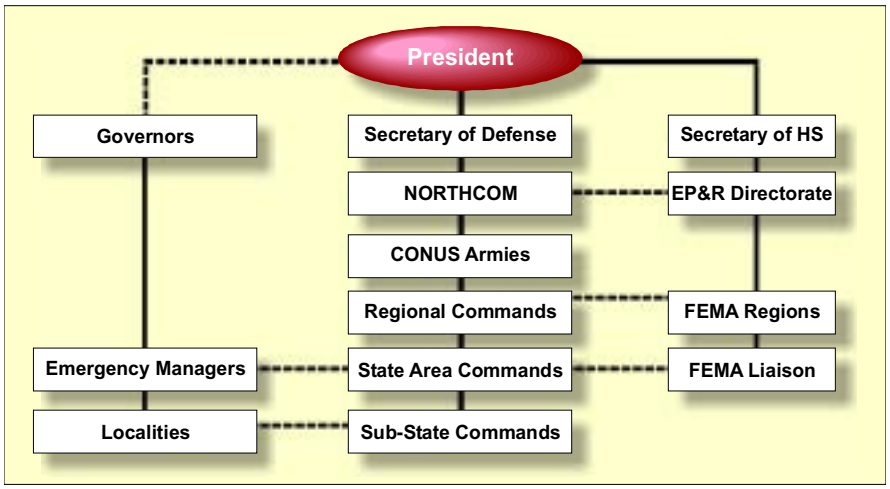

Figure 3. The National Chain of Collaboration for Option One

organize before the attack occurs so that protection is in place and support to civil authorities is both immediate and effective.

Endnotes

1 See Clayton D. Laurie and Ronald H. Cole, The Role of Federal Military Forces in Domestic Disorders 1877-1945, Center of Military History, 1997, and Stetson Conn, Rose C. Engelman, and Byron Fairchild, United States Army in World War II: Guarding the United States and Its Outposts, Chief of Military History, 1964.

2 The Civil Defense Program was dismantled after 1989 as an unnecessary artifact of the Cold War. Starting in the mid-1990s, it has been necessary to recreate the program under the rubric of Homeland Security to face the terrorist threat.

3 The Goldwater-Nichol Act specifies that unified commanders conduct operations and the services and Defense Agencies provide units, trained personnel, services, and supplies to them.

About the author:

COL (ret.) John R. Brinkerhoff is an adjunct research staff member of the Institute for Defense Analyses whose work includes homeland defense. From 1981 to 1983, he was acting Associate Director for National Preparedness of the FEMA, and was responsible for policy formulation and program oversight of the Civil Defense Program, National Mobilization Preparedness Program, Continuity of Government, and the National Defense Stockpile. He also served as Deputy Executive Secretary of the Emergency Mobilization Preparedness Board (EMPB), the senior level interagency forum to coordinate all aspects of national preparedness. Prior to joining FEMA, COL Brinkerhoff was a career senior executive in the Office of the Secretary of Defense (OSD), where he served in a number of positions, including as Acting Deputy Assistant Secretary for Reserve Affairs, Director of Manpower Programming, Director of Intergovernmental Affairs, and Special Assistant to the Deputy Assistant Secretary of Defense for Reserve Affairs. COL Brinkerhoff served as an Army officer for 24 years in a variety of troop assignments in Korea, Germany, Vietnam, and the United States. While on active duty he served two tours on the Army staff and two tours in OSD.

The *Posse Comitatus* Act and DOD Policy for Homeland Security

CAPT Gary Felicetti
LCDR John Luce
U.S. Coast Guard

Introduction

Much has been written about the *Posse Comitatus* Act (18 U.S. Code Section 1835), which in part reads: "Whoever, except in cases and under circumstances expressly authorized by the Constitution or Act of Congress, willfully uses any part of the Army or the Air Force as a *Posse Comitatus* or otherwise to execute the laws shall be fined under this title or imprisoned not more than two years, or both." Many, including the Department of Defense (DOD), maintain that this (originally 19th-century) law strictly limits almost all DOD participation in any activity related to "law enforcement" or "homeland security." This is a fundamental mischaracterization that while understandable, is potentially dangerous to national security and has done nothing to protect civil liberties.

So how did a racist law from the bitter Reconstruction period morph, in many minds, into shorthand for the respected principle that Americans do not want a military national police force? In a nutshell: deliberate mischaracterization by the original supporters who hid behind patriotic language to strip the freed slaves of their nascent civil and voting rights; excessive focus on the false historical arguments as opposed to the law's actual text and ugly history; and some bad policy that misused a few key court decisions, and part of a statute, in a way that limited DOD efforts in the "war on drugs" at a time when Congress was pushing expanded participation. Despite the success of the deception and political mischief, the *Posse Comitatus* Act is not a significant impediment to DOD participation in law enforcement or homeland security.

General acceptance of Army participation in law enforcement (1787-1861)

While the nation's founders were deeply concerned with the abuses of the British Army during the colonial period and military interference in civil affairs, the majority was even more concerned about a weak national government incapable of securing life, liberty, and property. Some vocal patriots sought to avoid a standing army and any federal control over the state militias; however, in the end, theirs was the minority view. The new Constitution did not contain the explicit limits and outright bans desired by some, even though the pro-Constitution Federalists explicitly argued that the standing army could assist in law enforcement efforts.

Legislative and executive actions in the early days of the American republic confirm that the use of federal troops or federalized militia to preserve domestic order, either as part of a *Posse Comitatus* (literally meaning the power or authority of the county) or otherwise, was an accepted feature of American life under the new Constitution. In 1794, President Washington led federal troops into western Pennsylvania because unruly farmers refused to pay a whiskey excise tax. President Jefferson issued a broad proclamation that relied upon the Chief Executive's authority to call on the entire populace, military and civilian, to serve as a grand *Posse Comitatus* to counter Aaron Burr's planned expedition against Spanish territory. In 1832, President Jackson initially sent military forces toward South Carolina under a Jefferson-like *Posse Comitatus* theory to prevent secession. In an 1851 report to the Senate, President Fillmore stated that he had the inherent power to use regular troops to enforce the laws and that all citizens could be called into a posse by the marshal. The Senate Judiciary Committee agreed that marshals could summon both the militia and regular troops to serve in a *Posse Comitatus*.

In 1854, Attorney General Cushing formally documented the doctrine, concluding: "The *Posse Comitatus* comprises every person in the district or county above the age of fifteen years whatever may be their occupation, whether civilians or not; and including the military of all denominations, militia, soldiers, marines. All of whom are alike bound to obey the commands of a sheriff or marshal." Ironically, the Cushing Doctrine, as the long-standing policy became known, was initially used as a basis for U.S. marshals to enforce the Fugitive Slave Act in Northern states.

The Act's true roots in the Civil War and Reconstruction bitterness

For some in the defeated South, the military occupation was worse than battlefield defeat. The presence of victorious Union troops, including former slaves, humiliated many former Confederates. Throughout the

war, black Union troops flaunted their contempt for the symbols of slavery and relished the opportunity to exert authority over, and in some cases torment, Southern whites. During Reconstruction, the Army remained a powerful symbol of the destruction of the South's antebellum way of life. Army activity to protect blacks or assist institutions such as the Freedmen's Bureau, no matter how limited, kept the wounds open and raw.

Politically, the immediate postwar period was much more benign. Under the generous terms of Presidential Reconstruction, state governments were in place throughout the South by the end of 1865. Unfortunately, they moved quickly to assert white domination over blacks via a series of laws known as "Black Codes." These laws, while varying from state to state, consigned blacks to a hopeless serfdom. The reconstructed state governments also did little to protect blacks against what was, unfortunately, just the beginning of widespread racial terrorism.

Newspaper stories about the Black Codes and abuse of the former slaves enraged Northerners, and the Republican Congress imposed a more radical agenda. Under Congressional Reconstruction, the existing state governments were dissolved, direct military rule was introduced, and specific measures were taken to encourage black voting and secure full civil rights for the freedmen.

Southern Democrats did everything possible to undermine the Republican mixed-race state governments. In some areas, expanded voting rights for former Confederates gradually created white Democratic voting majorities, while economic pressure induced blacks to avoid political activity. In other areas, however, more direct action to limit Republican voting was taken. Terrorist organizations such as the Ku Klux Klan, the Knights of the White Camellia, and the Knights of the Rising Sun served as the unofficial Southern white army in the war against Northern rule. For this "army," no act of intimidation or violence was too vile, so long as it was directed against blacks and their white political allies. While the Republican state governments resisted this "counter-reconstruction," their efforts to combat the Klan were ineffective, and state officials appealed for federal help. Some federal interventions resulted; however, any temporary benefits quickly faded, along with the waning Northern will to enforce reconstruction. With a few exceptions, Southern Republicans were left to fend for themselves.

The subsequent bitter political battles over the contested election results in the Presidential campaign of 1876 led to the effective withdrawal of federal troops from the South in early 1877 as part of a deal to resolve which candidate would assume the presidency. The remaining state Republican governments collapsed, and the traditional white ruling class resumed power. In the words of W.E.B. DuBois, "The slave went free; stood a brief moment in the sun; then moved back again toward slavery."

Legislative action to end Reconstruction

Initial congressional action to limit federal control over the South began shortly after the 1876 election. Many members of the Democratically-controlled House harshly criticized the President for using troops to keep peace at some Southern polling places, despite the fact that it was specifically authorized by existing law and clearly protected voting rights. Southern Democrats subsequently led a two-year effort to reign-in the primary instrument of federal power, the Army. Eventually, the following amendment was introduced to an Army appropriations bill: "It shall not be lawful to use any part of the land or naval forces of the United States to execute the laws either as a *Posse Comitatus* or otherwise, except in such cases as may be expressly authorized by act of Congress." The sponsoring Democratic Congressman, Mr. Kimmel, roundly denounced regular troops as bloodthirsty brutes, questioned the constitutionality of a standing Army, and vigorously restated the colonial debates about the danger of a standing Army. The substitute bill that passed the House, introduced by Congressman Knott, omitted the restriction on the use of naval forces and added a criminal penalty. The debate's significant focus on the "unlawful" use of Army troops to supervise polling places, without acknowledging that federal law (before and after the *Posse Comitatus* Act) clearly permitted the action, highlights the initial deception surrounding the Act. The Senate added language to account for constitutional authority to use the Army as a *Posse Comitatus*, or otherwise, to execute the laws. The Senate also considered an amendment by a supporter of the bill to change part of the Act to read: "From and after the passage of this act it shall not be lawful to employ any part of the Army of the United States for the purpose of executing the laws except in such cases as may be expressly authorized by the Constitution or by act of Congress." This key amendment was defeated, leaving words in the Act that must be given meaning.

The Act's Meaning in the Late 19th Century

As with many controversial laws, the full extent of the *Posse Comitatus* Act was not clear. To the extent that agreement can be discerned from the deliberately misleading debate, most appeared to agree that the marshals could no longer order Army troops to join the *Posse Comitatus* in subordination to the marshal. In other words, the Act clearly undid the Jefferson-Jackson-Fillmore doctrine articulated by Attorney General Cushing in 1854.

At least one of the key disputes over the statute's additional meaning, if any, implicitly centered on the interpretation of the words "as a *Posse Comitatus* or otherwise." Under a cardinal rule of statutory construction, the words must have some meaning. They cannot be ignored, especially since Congress had an opportunity to remove them, but declined. Moreover, the Act cannot be interpreted to adopt the very language rejected by Congress.

While history can help define a 19th-century "*Posse Comitatus*," other tools help interpret the words "or otherwise" which follow. Under another long-standing rule of statutory construction known as ejusdem generis (of the same kind, class, or nature), the general words "or otherwise" prohibit actions of the same general class as placing Army troops into a *Posse Comitatus* at the order of the local marshal. Since the two primary "evils" addressed during the debates were the Cushing Doctrine and Army troops supervising polling places, one reasonable interpretation is that the words "or otherwise" sought to limit any implied authority of the marshals to order Army troops to help supervise the polls. Perhaps the only agreement was that the *Posse Comitatus* Act did not apply to the Navy.

President Hayes concurred that the Act limited a marshal's authority over the Army, but did not believe that the law, signed on 18 June 1878, applied to the President. A few months after signing the Act into law, he signed a broad proclamation concerning the lawless situation in the New Mexico Territory and deployed troops for 17 months to enforce the law. A great deal can be learned about the Act from this troop deployment since it occurred while the authors were still in Congress. Except for the initial presidential proclamation and the location of the disturbances, it is difficult to distinguish significantly the long-term use if troops in the New Mexico territory from the Reconstruction period. Presidential involvement with the decision to use troops in a law enforcement role appeared to be the only real, mostly political, limit imposed by the Act.

Skeptical that such a contentious law accomplished so little, President Chester Arthur asked Congress to amend the Act after similar trouble struck Arizona. In reply, an 1882 Senate Judiciary Committee report confirmed that the primary evil addressed by the *Posse Comitatus* Act was a marshal's power to call out and control the Army. The President could, essentially, use troops in Arizona as he saw fit, provided that military officers maintained command over those forces.

The Act clearly did not end Army involvement in domestic legal affairs, with 125 interventions from 1877 to 1945, according to historians Clayton Laurie and Ronald Cole in their book The Role of Federal Military Forces in Domestic Disorder, 1877-1945. Initially, the key difference from the Reconstruction period was that the President approved or ratified most actions; some sort of proclamation complying with another law was normally, but not always, issued before troops intervened; and the Army stayed out of the South.

The only domestic use of troops that provoked even a partial congressional response during that time concerned President McKinley's deployment of 500 troops to Coeur d'Alene, Idaho, to quell disturbances between miners and mine owners, from May 1899 to April 1901. President McKinley sent in regular troops to restore order but did not invoke another law that required him to first issue a cease and desist proclamation. Violence subsided before the troops arrived, so they were used in a dragnet to apprehend over 1000 suspects identified by quasi-official state officers.

In late 1899, the House Committee on Military Affairs investigated the episode. The June 1900 report split along party lines, with the Republican majority finding no fault with the actions of the Republican administration. While sharply critical, in the ensuing Congressional report the Democrats agreed the initial deployment was lawful. They branded subsequent actions by the troops and President, however, as "reprehensible, violative of the liberty of the citizen, and totally unwarranted by the laws and Constitution of the United States." The Democrats made absolutely no mention of the *Posse Comitatus* Act. Clearly, Congress did not see the Act as imposing any limit on the commander in chief's domestic use of the armed forces.

An almost invisible law

In many respects, the *Posse Comitatus* Act remained invisible for the first several decades of the 20th century. In May 1917, the Secretary of War unilaterally instituted a "Direct Access Policy" that essentially reinstated key parts of the Cushing Doctrine for over four years. On 29 occasions local officials used Army troops to break strikes, prevent labor meetings, stifle political dissent, and arrest or detain workers without the right of habeas corpus. Few in power appeared to care. Congress, on the other hand, did move decisively to increase the military's law enforcement role in a host of situations ranging from protecting waterfront facilities to enforcing fishing rules.

Yet, for the next 80-plus years, Congress did not even discuss the Act, leaving the impression that it was not considered particularly relevant. The Act was all-but-forgotten by mid-century. In 1956, however, the Act was moved to 18 U.S. Code, section 1385, and amended to include the Air Force, which had been separated from the Army. An attempt was made to subject the Navy to the Act in 1975; however, the bill died in committee.

Resurrection of the Act during the 1970s

In the early 1970s, the *Posse Comitatus* Act emerged from obscurity as creative defense lawyers attempted to develop new exclusionary rules based on the Act. A typical case involved a criminal defendant seeking acquittal because the arresting law enforcement official received assistance from a member of the DOD, allegedly in violation of the Act. While this effort was almost always unsuccessful, the cases in the 1970s marked the triumph of the deceptive 19th-century politicians who cloaked the Act in patriotic rhetoric. As with most laws, the Act has several parts, or elements, that must all be satisfied before the law is violated. Under a cardinal rule of statutory construction, words cannot be ignored, especially since, in this case, Congress considered but rejected attempts to remove them from the Act. A case, therefore, can be resolved if the court finds that any single element is not satisfied. In the most important Army cases from the 1970s, the courts defined one element, the phrase "to execute the laws," and ruled against the defense since this one element was not met. In doing so, however, the courts provided only a limited discussion of the Act and did not explicitly note the many other un-discussed elements vital to understanding the law's meaning. This proved to be a significant source of future misunderstanding.

Congress further increases DOD involvement in law enforcement

By the late 1970s, the federal government formally acknowledged that it was easy to smuggle illegal drugs into the United States and distribute them to eager buyers. Against this backdrop, Congress moved in 1981 to increase cooperation between DOD and civilian law enforcement authorities as part of the 1982 DOD Authorization Act. The effort prompted an unlikely alliance between federal drug enforcement officials, who feared DOD dominance over a high-profile mission; DOD officials, who feared a resource drain away from the department's primary mission; and civil libertarians, who feared an eventual military state.

Despite this opposition, a version of the bill became law. In a nutshell, the 1982 Defense Authorization Act established some explicit "safe harbors" of permissible DOD activity to assist law enforcement efforts. In one case, the safe harbor came with restrictions to prevent abuses. These restrictions, however, were limited to the safe harbor. The new law explicitly did not change the *Posse Comitatus* Act or impose any limitations beyond those in the *Posse Comitatus* Act itself. The entire point was to increase DOD-civilian cooperation in law enforcement.

DOD Implementing Regulations

On 7 April 1982, the Defense Department published administrative regulations implementing 10 U.S. Code, sections 371-378. The regulations invented an extremely broad definition of the *Posse Comitatus* Act based upon the one element analyzed in the 1970s court cases. This transformed the tests for when one "executes the law" into the entire definition of the Act. In taking this action, the DOD instituted a version of the Act explicitly rejected by lawmakers in 1878 and rendered meaningless words deliberately left in the law by Congress.

The regulations also extended the Act's coverage outside the United States, ignored key sections of the 1982 law to reach a conclusion that it actually increased restrictions on all DOD activity, and applied the overly restrictive DOD interpretation of the *Posse Comitatus* Act to the Navy and Marine Corps as a matter of DOD policy. Taken together, the overly restrictive regulatory provisions appeared to reflect the DOD's lack of support for the congressional intent behind the 1981 law. After thus inventing a new *Posse Comitatus* Act, the

regulations articulated several new implied exceptions to the Act in order to preserve many vital DOD activities. Of course, the need for implied exceptions was created by the DOD policy itself and had nothing to do with the actual *Posse Comitatus* Act.

Flawed DOD policy begins to merge with the Act

Despite the overly restrictive regulations, DOD did assist in some law enforcement actions. One prominent example involved the placement of Coast Guard Law Enforcement Detachments on some Navy ships. These programs had some success, and a few defendants subsequently claimed that the Navy support violated the *Posse Comitatus* Act. While the claim was of little help to accused drug smugglers, several cases effectively fused discussion of the *Posse Comitatus* Act with the contents of the misleading DOD regulations. The flawed DOD regulations and internal policy began to control discussion of the Act.

Congress acts again to increase DOD involvement in law enforcement

Despite wide public perception that the United States had lost control of its borders, defense and law enforcement officials continued to oppose an increased DOD role in securing them. However, in September 1988, Congress enacted a program to increase significantly the role of the armed forces in drug interdiction as part of the Defense Authorization Act for 1989. The conference committee bill established a requirement for the DOD "to plan and budget for the effective detection and monitoring of all potential aerial and maritime threats to the national security." It also designated DOD as the lead federal agency for the detection and monitoring of aerial and maritime transit of illegal drugs into the country. While concerns about direct DOD law enforcement actions remained, the 1988 Act was clearly intended to further increase Defense Department participation in indirect law enforcement.

The *Posse Comitatus* Act's Meaning in the 21st Century

While no one has ever been convicted of violating the *Posse Comitatus* Act, its surviving portion remains a criminal law. A defendant must act "willfully" or he did not violate the law. Depending on many factors, "willfully" can mean that the defendant knowingly performed an act, deliberately and intentionally, or that the accused acted with knowledge that his conduct was generally unlawful. If the proscribed conduct could honestly be considered innocent, then a willful *mens rea* may require the defendant to have a more specific knowledge of the law being violated. A higher standard for willfulness probably should apply to the *Posse Comitatus* Act, given that DOD's lead instruction on the topic significantly misstates the law. With the definition of willfulness in place and the historical record in mind, the *Posse Comitatus* Act becomes:

Whoever, except in cases and under circumstances expressly authorized by the Constitution or Act of Congress,

(1) intentionally and with a bad purpose to either disobey or disregard the law
(2) uses any part of the Army or Air Force
(3) within the United States
(4) upon the demand of, and in subordination to, the sheriff, US marshal, or other law enforcement official
(5) to directly enforce civilian law in a way that US citizens are subject to the exercise of military power which is regulatory, proscriptive, or compulsory in nature, or at a polling place
(6) without first obtaining permission of the President to do so, shall be fined under this title or imprisoned not more than two years, or both.

Unlike the DOD policy that purports to be based on the *Posse Comitatus* Act, this interpretation does not require one to ignore words Congress deliberately left in the law, discard recognized rules of statutory construction, or reinvent history. There is also no need to invent a large body of so-called exceptions to the *Posse Comitatus* Act under this reading. The Act's important role is to counter the loss of control over Army troops via the Cushing Doctrine. Other laws and constitutional provisions further limit the military, keep it away from polling places during elections, and capture the broader policies against military involvement in domestic affairs. The Act is an important, but partially redundant, component of a statutory and constitutional system that limits military involvement in civil affairs.

Conclusion

Unfortunately, current DOD policy on the *Posse Comitatus* Act—a set of overbroad limits that bear little resemblance to the actual law, combined with a

bewildering patchwork of exceptions—impedes the federal government's homeland security mission. It is a rotten legal foundation for U.S. Northern Command and creates bizarre situations where the U.S. Navy perceives itself to have less authority to conduct some national defense missions as threats get closer to America.

In addition to potentially impeding national security, this misguided policy is dangerous to American civil liberties and erodes respect for the rule of law. It holds up the *Posse Comitatus* Act as a strict legal and quasi-constitutional limit that is easy to discard or ignore when practical necessity appears to require it. In the end, the law becomes a procedural formality used to ward off undesired and potentially resource-depleting missions, while not imposing any real controls. Its past time to acknowledge that DOD policy on the department's role in law enforcement and homeland security has almost nothing to do with the *Posse Comitatus* Act. Let's get the policy into the light of day, as a discretionary policy, and resolve the important issue of how to best secure the American homeland while protecting civil liberties.

Editor's note: This article is excerpted from a version originally published in the Autumn 2004 issue of Parameters. An expanded discussion of the Act by the same authors appeared in Military Law Review Vol. 175 (March 2003).

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Lexington, Massachusetts — April 19, 1775

In the early hours of April 19, 1775, Capt. John Parker was alerted to mobilize the Lexington Company of the Middlesex County Brigade, Massachusetts Militia, in anticipation of a British 700-man force that was marching to Concord to capture provincial arms. By 2 a.m. Parker had mustered his company on the Lexington Green. The Lexington Company of militia was typical of the period. The youngest militiaman was 18, the oldest 63; eight fathers and sons served together. Most were farmers, while some were veterans of the French and Indian War. Just after sunrise Parker and his 77 militiamen stood in defiance of the British advance guard. "Stand your ground," Parker ordered. "Don't fire unless fired upon. But, if they want to have a war, let it begin here." Maj. John Pitcairn, commander of the British advance guard, ordered the militiamen to lay down their arms. Realizing that his company was outnumbered, Parker ordered his men to disperse. As the militiamen began to break ranks, a British officer fired his pistol. Without orders, the British troops opened fire. Although greatly outnumbered, the militiamen returned the fire. The battle went on for several minutes, all around the Green. When it was over, eight Americans lay dead and nine were wounded. The British quickly resumed their march. Later that morning, Capt. Parker reorganized his unit and marched to Concord. The Lexington Company would later fight in the Battle of Bunker Hill and form a company for service in the Continental Army. However, few of its members on that fateful April morning realized that the Battle of Lexington would lead to the Revolutionary War and American independence. The Lexington Company and the Middlesex County Brigade are perpetuated by the 181st and 182nd Infantry Regiments, Massachusetts Army National Guard.

Federal Government Policy on Homeland Security: Recent Official Reports

Dr. Kent G. Sieg
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Introduction

Homeland security is by necessity an evolving field of endeavor, both intellectually as well as in practice. Protecting and defending the territory of the United States against the new threat involves complex and previously unimagined partnerships between various levels of government, unprecedented military and civil authority cooperation, and extensive reaching out to industry and the public, all done in order to ensure that the nation's vulnerabilities are made known and that the consequences of terrorists attacks can be mitigated. While not meant to be a fully comprehensive listing of all government reports related to the topic, the official reports released subsequent to the presidential national strategy that are examined in this article have broken new ground on various aspects of homeland security. Some have been precedent-setting in and of themselves by establishing the policies that the country's leaders follow, while others offer suggestions for innovative approaches that can lead the national debate over defending the homeland into ethical, political, and even constitutional virgin territory.

National Strategy

Title – "National Strategy for Homeland Security."

Background – On 16 July 2002, President George W. Bush announced the "National Strategy for Homeland Security." The strategy was necessitated by the perception that inaction would invite a new and even more vicious wave of terrorism in the future. It sought to codify the determination of the U.S. government to stand against terrorism and to protect the homeland against attack.

Findings – The President's policy outlined the state of American national defense:

- Terrorists base their targets on weaknesses they observe in American defenses.
- Unconventional means of attack, such as through the Internet, will occur.
- Our enemies are working to obtain weapons of mass destruction (WMD).
- No single agency has sole responsibility for homeland security as these responsibilities are dispersed among more than a hundred different government organizations.
- The private sector owns most of the critical infrastructure but does not have close partnerships with the government in the security area.

Recommendations –

- The responsibilities of federal agencies are clearly delineated.
- The Department of Homeland Security (DHS) must be created.
- Terrorist tasks must be prevented from within the United States through improved intelligence and warning systems, countering terrorism domestically, and by strengthening border and transportation security.
- National vulnerabilities to terrorism must be reduced by protecting critical infrastructure.
- Enhance the role of the Federal Bureau of Investigation (FBI) in intelligence collection and dissemination.
- Damage mitigation and recovery must be elevated in importance.
- Homeland security actions will incorporate a framework of legality, new technology, information sharing systems, and international cooperation.
- Recapitalize the U.S. Coast Guard.
- Implement the color-coded Homeland Security Advisory System (HSAS).
- Target terrorists personally as well as their financial sources.

- Protect cyberspace.

- Create a national incident management system and expand the capabilities of emergency responders at all levels.

- Each governor will establish a Homeland Security Task Force (HSTF) as their primary conduit to the federal government.

- Create "smart borders" and secure shipping by applying risk management and improved technology.

Comment – In the years after its pronouncement, this policy report has formed the basis for the continuing struggle to defend the homeland against terrorism. What followed in its aftermath has been the greatest reorganization of the federal government since World War II. An all hazards, multi-disciplinary National Response Plan (NRP) has been developed and is supported by the National Incident Management System (NIMS), all in order to standardize incident management rules and procedures. In testimony before the House Government Reform Committee in September 2004, the Government Accountability Office's (GAO) managing director on homeland security issues confirmed that federal agencies were making progress in the planning and implementation of these key strategy initiatives.

Weapons of Mass Destruction

Title – "National Strategy to Combat Weapons of Mass Destruction."

Background – In December 2002, the President issued this policy statement. This comprehensive approach to countering the Weapons of Mass Destruction (WMD) threat was considered integral to the National strategy for Homeland Security.

Findings –

- WMD pose a grave danger to the homeland.

- Rogue states possess WMD and may use them as weapons of coercion.

- Terrorist groups are trying to get possession of WMD.

- WMD may be used to overcome the military superiority of the United States.

Recommendations –

- The military and homeland security related agencies must be trained and equipped to combat WMD.

- New technology, expanded intelligence collection, and the formation of new partnerships are necessary.

- Arms control and other multilateral agreements will be established to deter or impede unauthorized transfers.

- The U.S. Government must be prepared to respond to the use of WMD within its borders.

- The Counterproliferation Technology Coordination Committee will improve counterproliferation research and development across the government.

Comment – One significant result of the report was the launching in May 2003 of the Proliferation Security Initiative (PSI), designed to stop WMD and delivery system shipments worldwide. The announcement of the PSI Statement of Interdiction Principles by a group of nations in September 2003 laid out the steps for effectively interdicting WMD to stop its proliferation through partnerships in "best practices" and the coordination of capabilities. In November 2004, the U.S. Coast Guard successfully ran an exercise involving international partners to ascertain the policy and operational issues associated with maritime law enforcement and military interdiction of WMD and to make improvements in capabilities and response.

Coast Guard Maritime Security

Title – "Maritime Strategy for Homeland Security."

Background – The U.S. Coast Guard protects over 360 ports and 95,000 miles of coastline, and provides a safe environment for maritime commerce and recreation. The new responsibilities thrust upon the Coast Guard with the advent of DHS, and the passing of the Maritime Transportation Safety Act (MTSA) of 2002, precipitated the promulgation of this report in

December 2002. As the designated lead agency for maritime security, the Coast Guard's roles and missions required definition.

Findings – The strategy laid out that:

- The Coast Guard is the lead federal agency for maritime homeland security and is supporting by the Department of Defense (DOD) in this area.
- The Coast Guard supports the lead federal agency, DOD, in homeland defense.
- Shared information, responsibilities, and full knowledge of requirements are essential.
- The Coast Guard has extensive experience in mitigating the damage of and recovery from hostile attacks.
- As both a law enforcement agency and an armed forces component, the Service can participate in either countering event-driven or prevention-based homeland security operations.

Recommendations –

- Knowledge of factors - such as usage of the nation's waterways - that make up maritime domain awareness (MDA) must be increased.
- Gaps in port security must be closed.
- The Coast Guard must leverage its capabilities by partnering with public and private stakeholders and acquiring new mission-ready assets.
- The Service must undertake vulnerability assessments of port infrastructure and track vessel movement.
- The Coast Guard must expand its recruitment and training beyond its traditional mission focus to emphasize the new paradigm of counterterrorism.

Comment – Since 9/11, the Coast Guard has increased its vigilance. The fiscal year 2005 appropriations bill provided $7.39 billion, and a personnel ceiling of nearly 40,000 for the Coast Guard. Also included in the bill is $724 million for the Deepwater asset recapitalization program. The MTSA required that certain U.S.-flagged vessels had to be equipped with an automatic identification system (AIS).

National Strategy for Combating Terrorism

Title – "National Strategy for Combating Terrorism."

Background – Released by the White House on 14 February 2003, this strategy outlined the efforts undertaken in fighting against global terrorism. This strategy was released in support of the National Security Strategy of the United States.

Findings – The strategy's major points are:

- Terrorism - not a single regime, individual, or religion – is the real enemy.
- The terrorist threat is flexible and transnational.
- Weapons of mass destruction pose a direct and serious threat.
- Top U.S. priorities are combating terrorism and securing the homeland from attack.
- Direct, continuous action will destroy the terrorist threat.
- The strengths of the American system – in terms of values, governmental institutions, economic power, and technology – will render the United States the advantage in the war on terror.

Recommendations –

- The United States will defeat terrorist organization by identifying, locating, and attacking them.
- International cooperation and accountability will deny further support to terrorists around the world.
- Incentives will end state sponsorship of terrorism.
- The United States and the international community will focus efforts on diminishing the conditions exploited by terrorists.
- Proactive protection of the homeland and extension of defenses through domain awareness and other measures will secure the United States and its interests.

Comment – The over-riding emphasis was on vigilant prosecution of a war on terrorism that would last for years. This report preceded the launching of the war against Iraq, perceived at the time to have a major role in supporting global terrorism, which began the next month.

Defense Science Board

Title – "2003 Summer Study on DOD Roles and Missions in Homeland Security."

Background – The Defense Science Board (DSB) was established in 1956. Under its latest charter, the DSB advises DOD and the Joint Chiefs of Staff (JCS) on matters relating to military operations research, technology, and engineering. It is made up of thirty-five active members (with five being senior fellow members) and seven ex officio members. This report was transmitted under cover of a memorandum from its chairman, William Schneider, to the Under Secretary of Defense (Acquisition, Technology, and Logistics) in November 2003.

Findings – The DSB recommends that the federal government and specifically DOD pursue a "holistic approach" towards homeland security through the following measures:

- Information and intelligence are vital to homeland security, but this area is sorely deficient.
- Mission critical infrastructure is vulnerable.
- DOD lacks a robust human intelligence capability.
- There is minimal integration of intelligence analysis and collection.
- Domestic and foreign intelligence are not integrated.
- The military is not prepared to engage in mitigation and remediation of the impact of WMD attacks.
- The defense industry has glaring weaknesses.
- DOD lacks the critical capability to expand its medical treatment and response during and after a terrorist attack.

Recommendations –

- U.S. Northern Command (NORTHCOM) must assess and redress critical infrastructure vulnerabilities.
- Cyber-security should be assigned to U.S. Strategic Command (STRATCOM) with support from the Defense Advanced Research Projects Agency and the National Security Agency.
- DOD must remain aggressive in its pursuits of terrorists and "take the fight to the adversaries proactively – into the badlands and other sanctuaries."
- The Navy and Coast Guard under NORTHCOM should have a maritime surveillance system that allows for detection of vessel, missile, and low altitude flight attacks against the shoreline.
- The Pentagon should emplace a defense system against low-flying aircraft potentially carrying weapons of mass destruction.
- The National Guard, as leveraged under state control through Title 32 (with personnel additionally augmented through Title 10 and Title 14) should be the designated DOD agent for responding to terrorist threats, as well as remain the primary reserve force for missions outside the Continental United States (OCONUS).
- NORTHCOM must be the lead command for training, exercising, and standardizing homeland defense and military assistance to civil authorities.

Comment – The DSB's principal findings were discussed in the House Armed Services Subcommittee on Terrorism during the summer of 2004. The report contended that with an adoption of its recommendations "the nation can turn a 'yellow-orange' homeland security condition into one that is 'blue-green'. The DSB reports directly to the Secretary of Defense through the Under Secretary of Defense (Acquisition, Technology, and Logistics).

GAO Report on Homeland Defense

Title – "Homeland Defense: DOD Needs to Assess the Structure of U.S. Forces for Domestic Military Missions."

Background - The U.S. GAO released this report in July 2003. It explored the new nonmilitary missions in which the DOD was engaging, the impact of legal restrictions on these missions, and whether DOD is adequately prepared for them.

Findings – The GAO assessed key Pentagon planning documents, interviewed high officials, and assessed a wide array of complex data from units and the operational field. It found that:

- Congress has authorized the use of the military in civil actions in accordance with the *Posse Comitatus* Act.
- The key difference between military and nonmilitary missions is that DOD is not in the lead in nonmilitary missions and can often reject them.
- DOD has established new organizations for homeland defense, such as NORTHCOM and the Office of the Assistant Secretary of Defense for Homeland Defense.
- Cancellation of NORTHCOM's campaign plan provided no opportunity to evaluate its training and equipment requirements.
- DOD has not evaluated nor adjusted its force structure accordingly.
- Military force doctrine reflects an expeditionary emphasis.
- The current force structure is not organized for domestic missions, may not be able to sustain the high pace of homeland security operations, and may lose its combat proficiencies.

Recommendations –

- The Secretary of Defense must assess domestic military mission requirements.
- The military force structure should be changed in order to better accomplish domestic missions.
- DOD must undertake an extensive review of its entire force structure.
- Stop-loss and other mechanisms are not substitutes for shortfall capabilities.
- Any efforts to alleviate stress on the military forces should be done in the near-term.

Comment - The DOD position is that force structural changes can best be made as part of the management processes associated with the quadrennial defense review (QDR). The Pentagon does not believe that modification of the *Posse Comitatus* Act is necessary for it to fulfill any of its missions.

Gilmore Commission

Title – "Forging America's New Normalcy."

Background – In 1999, President Bill Clinton authorized the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction. This commission was chaired by former Virginia Governor James Gilmore and took his name. Commission members included senior representatives from all of the emergency response communities from all levels of the federal, state, and local government. They were charged with reporting on domestic preparedness for potential terrorist attacks. The Gilmore Commission issued five reports between 1999 and 2003. This is its last report, issued in December 2003.

Findings – The Gilmore Commission's findings included the following observations:

- The terrorist threat is a long-term problem that will not disappear.
- The creation of DHS has resulted in improved planning and readiness.
- The federal government has failed to articulate, communicate, and coordinate a clear strategy in combating terrorism.
- Seeking "total security" is an unachievable drain on resources.
- Momentum for homeland security has waned among the public due to uncertainties in combating terrorism and the challenges in creating a unified effort to combat the threat.
- The National Guard is utilized ineffectively in homeland defense.

- Both the FBI and the Federal Emergency Management Agency (FEMA), the lead agencies for crisis and consequence management respectively, are domestic in orientation and thus unsuitable for countering the transnational terrorism.

- State and local officials have been utilized in homeland security in an inconsistent manner.

- Response capabilities vary greatly across regions irrespective of population size.

- The medical, transportation, and agricultural sectors are unprepared to fight against or deal with the consequences of terrorism.

- Intelligence information is inconsistently shared between the FBI and the law enforcement community.

Recommendations - The commission made 144 recommendations, including these points:

- A national homeland security strategy must be overseen from an office in the White House (to be known as the National Office for Combating Terrorism, or NOCT) with authority over homeland security related agencies and budgets.

- Creation of an oversight board to ensure that civil liberties are not adversely impacted by homeland security efforts.

- Include state and local governments as well as the private sector to engage in homeland security.

- Centralize the issuance of homeland security grants solely within DHS to streamline the process.

- Revise the HSAS to include specificity as to localities.

- Offer systematic training to emergency responders for the actions required at each level of the HSAS.

- Prioritize the expenditure of homeland security related funds based upon risk assessment methodologies.

- Enact a nationwide system of mutual aid agreements between agencies.

- Overhaul the intelligence dissemination process by increasing the number of security clearances granted to the local law enforcement community, especially at the state and local levels, speeding up clearance approvals, and revamping the classification system applied to current information.

- Train military members specifically for homeland security missions.

- New legislation should be enacted to allow the National Guard to undertake national-level missions but remain under a state governor's control.

- Strengthen and more greatly fund the nation's public health system. The Department of Health and Human Services (DHHS) should make a nation-wide assessment of hospital and clinic resources for terrorism response and ensure that any deficiencies are fully funded.

- DHS must elevate within its priorities the protection of critical infrastructure.

- Establish a National Counterterrorism Center (NCTC) independent of any agency.

Comment – Most of the Gilmore Commission's recommendations have subsequently been incorporated into Congressional legislation. The interagency Terrorist Threat Integration Center (TTIC) exists and fully operates as a clearinghouse to integrate counter-terrorist information amongst federal agencies. Ancillary means of disseminating threat information to the public includes the National Infrastructure Coordination Center (NICC) and the Homeland Security Information Network (HSIN). One of the commission's members, Ray Downey, was killed in the World Trade Center attacks on 11 September 2001. The 17-member commission dissolved in early 2004.

Homeland Security Strategic Plan

Title – "Securing Our Homeland: The U.S. Department of Homeland Security Strategic Plan."

Background – The "National Strategy for Homeland Security" and the Homeland Security Act of 2002 organized the nation's resources for the protection from and defense against the terrorist threat. In order to provide guidance to the personnel of the new DHS, this document was released in February 2004.

Findings – The plan outlined that:

- DHS leads the national effort to secure the nation with missions of prevention, deterrence, and protection.
- It seeks to secure the borders while ensuring that the free flow of international trade and visitation continues relatively unimpeded.
- The goal of the Department is to reduce the vulnerability of the country to terrorist attacks, and to ensure the protection and preparedness of the nation's people.
- DHS will respect and protect the civil liberties and rights of U.S. citizens.
- Zones of security extend beyond the physical boundaries of the United States.
- Domestic and international transportation networks are intertwined.

Recommendations –

- Partnerships and effective mechanisms must be developed to quickly disseminate relevant information.
- Build an intelligence analysis capability that integrates actionable information.
- Use personnel, equipment, and technology more efficiently to develop "smart borders."
- Engage in strict enforcement of trade and immigration laws.
- Develop a national plan for reducing the vulnerabilities of critical physical and cyber infrastructure.
- Apply risk assessment methodology to preparedness and mitigation programs.
- Link planned performance and budgetary preparation.

Comment – This plan is intended to be the roadmap for DHS for its immediate future. Under this plan, DHS hopes to promote a corporate culture of common identity, innovation, respect, accountability, and teamwork to optimize its organizational performance in its mission areas.

National Incident Management System

Title – "National Incident Management System (NIMS)."

Background – In February 2003, the president directed DHS to develop NIMS. This document was released on 1 March 2004, under cover of a memorandum from the DHS Secretary to federal, state, and local agencies and first responders.

Findings – The essential parts of NIMS include:

- Integration of existing incident command structures and incorporation of proven best practices.
- Core concepts, doctrines, and processes for efficient collective incident management.
- A comprehensive framework for providing a structure and mechanisms for national policy and operational direction for federal support in disaster response.
- NIMS flexibility spans all incident management phases.
- Standardization of organizational structures under the incident command system (ICS).
- Emergency management personnel must acquire standard qualifications and participate in periodic, realistic exercises.
- Mechanisms for the mobilization, deployment, and recovery over the life cycle of an event.
- Establishment of a NIMS Integration Center in DHS to devise further NIMS guidance.

Recommendations –

- Universal adoption of ICS.
- Development of the NRP to integrate federal efforts into an all-hazards plan.

- All federal agencies to incorporate NIMS.

- NIMS will be utilized in all emergency management actions in assistance to other entities.

- State and local agencies must adopt NIMS as a condition for federal preparedness assistance.

- Additional development necessary for adoption of communications systems interoperability.

Comments – NIMS is an integral part of the NRP approved at the end of 2004, which will form the cornerstone of national policy for protection from natural disasters as well as from terrorism. NRP has brought together other existing plans, such as the Domestic Terrorism Concept of Operations Plan and the Federal Radiological Emergency Response Plan.

GAO Report on Aviation Security

Title – "Aviation Security: Further Steps Needed to Strengthen the Security of Commercial Airport Perimeters and Access Controls."

Background – The Aviation and Transportation Security Act (ATSA) of 2002 revolutionized aviation security. The act created the Transportation Security Administration (TSA), an agency that has been at the forefront of a new bureaucracy whose mission is to devise and enhance measures to ensure security and safety in this popular mode of transportation. Congress directed GAO to assess the efforts of TSA to evaluate and improve airport perimeters and access points through funding and guidance. The GAO issued this report in June 2004. It is representative of any number official reports examining aviation security.

Findings – The GAO team found that:

- TSA's security inspections and vulnerability assessments have identified areas of great concern at certain major airports.

- TSA has assessed the vulnerability of airports to shoulder-fired missiles.

- Airport operators have not fully complied with the access-control regulations.

- The results of these assessments have not been utilized as the basis for effecting needed improvements, and the needs and funding priorities of airport operators have not been identified and prioritized.

- TSA funds initiatives such as electronic surveillance equipment and biometric identification systems, but has no plans for their cost-effective employment.

- TSA is beginning to undertake joint assessments with the FBI.

- Airport workers are primarily screened through background checks as opposed to physical screening.

- TSA has opposed vendor security measures as too costly, and the incumbent additional rule-making process as too cumbersome.

Recommendations –

- TSA must devise a plan and a concrete schedule to meet legislated requirements of the ATSA in order to ensure airport security.

- Fingerprinting and more extensive background checks must be enforced for all airport employees.

- In order to shore up one particularly gaping area of potential vulnerability, airport vendors must develop security programs.

- Technology assessments should be conducted with the results compiled and disseminated to airport operators.

Comment – A restricted version of this report was issued. The auditors visited 12 commercial airports and surveyed the top 21 busiest airports to gather information. In 2004, DHS announced a research and design initiative to develop the Commercial Airliner Protection System (CAPS) to detect and deter man-portable missile systems.

9/11 Commission

Title – "The National Commission on Terrorist Attacks Upon the United States Public Report."

Background – In July 2004, the National Commission on Terrorist Attacks Upon the United States, or simply the 9/11 Commission, released its public report. The report followed months of riveting testimony by present and former senior government officials on the intelligence lapses that contributed directly or indirectly to the tragedy that was 9/11. President Bush chartered the commission in late 2002 to explore the circumstances surrounding the terrorist attacks, assess the response to them, and provide future recommendations.

Findings – The 9/11 Commission noted that:

- There virtually was no possibility of stopping the four hijacked planes on 11 September 2001.
- All sectors of American society have helped the nation become stronger and to recover from the attacks.
- The ensuing criminal investigation has been the largest in American history.
- The USA PATRIOT Act provided law enforcement with the tools necessary to pursue the terrorists.
- Large portions of terrorist financial assets have been seized or frozen.
- Heightened patrols, threat assessments, access restrictions, and key asset protection have been undertaken successfully.
- Countering bioterrorism is a top priority of the U.S. government.

Recommendations –

- The position of Director of National Intelligence (DNI) must be created.
- Biometric identifiers should be used in border and transportation systems.
- Identification and certificate documents need to be distributed according to nationally set standards.
- Utilize risk and vulnerability assessment in the allocation of federal funds for homeland security.
- Regional adoption of the incident command system.
- Development and adoption of standards for communications among emergency responders.
- Replace the current terrorism fusion centers with a new NCTC.

Comment - The commission released two additional staff monographs at the time of its closure in August 2004. A portion of the general report providing additional transcripts and documentation remained restricted. Given its bipartisan nature and the high public attention that its hearings attracted, the recommendations of this report have been given serious consideration by the administration and Congress.

GAO Reports on Maritime Security

Titles – "Maritime Security: Substantial Work Remains to Translate New Planning Requirements into Effective Port Security" and "Maritime Security: Better Planning Needed to Help Ensure an Effective Port Security Assessment Program."

Background – These reports were issued in June 2004 and September 2004 respectively. Given continued concerns over the potential threat that terrorism poses to the maritime transportation system, the GAO undertook the study in response to requests from Congress to determine the U.S. Coast Guard's progress towards developing and implementing security plans as mandated under the Maritime Transportation Security Act (MTSA) of 2002. Under the MTSA, the Coast Guard had to review or ensure certification of 12,350 security plans for individual ports and vessels by 1 July 2004. The Coast Guard estimated the costs for full implementation of the security measures at $7.3 billion over a decade. The implementation of the Port Security Assessment Program (PSAP) by the Coast Guard is designed to identify and mitigate vulnerabilities at the nation's 55 most important ports. Congress directed the GAO to assess the functioning of PSAP during its first two years.

Findings – During mid-2003 through mid-2004, the GAO interviewed Coast Guard officials, reviewed official documents, and made a number of site visits to port areas. Its findings included the following points:

- The Coast Guard allowed a considerable number of the plans to undergo self-certification rather than formal review using standards developed by their trade associations.

- Every one of the plans reviewed had deficiencies.

- In accordance with regulations, many vessels and facilities have been able to continue operation without an approved plan, as long as they made satisfactory progress towards full MTSA compliance.

- The Coast Guard's schedule of inspection compliance that began in the fall of 2004 is overly ambitious.

- Challenges include not only the lack of sufficient numbers of inspectors, but also the adequate levels of training and equipment.

- 75 percent of the inspectors placed into the additional 282 billets working on compliance inspection were reservists who may soon become unavailable.

- The Coast Guard may have underestimated the costs for the intended improvements by employing too many assumptions and using incomplete data.

- The PSAP costs are much more extensive than anticipated.

- Many operators of the critical port assets have conducted their own vulnerability assessments, either for regulatory reasons or as part of a security grant application process.

- Planning for acquiring and using the assessment information is sorely lacking.

- Functional gaps remain in the security knowledge database being developed.

Recommendations –

- The Secretary of Homeland Security should direct the Coast Guard to re-evaluate the inspection system after six months.

- While the Coast Guard has authorized its captains of the port (COTP) to order intervening inspections between the annual requirements, the compliance process must be strengthened with new or retooled efforts by the Coast Guard.

- These tactics should include inspector qualifications, unscheduled inspections, and covert testing.

- The Coast Guard should correctly adopt and utilize geographic information systems (GIS) computerized mapping in accordance with best practices for technology systems to allow for easy update and retrieval of information.

Comment – The Coast Guard disagreed with certain of the GAO's conclusions, noting that the alternative security programs developed by the trade associations were, in essence, approved security plans under MTSA. In August 2004, the GAO also expressed concern that the Coast Guard could fund or field an automatic identification system for tracking ships, using receivers on buoys and in outer space, to prevent coastal attacks. The GAO report suggested that the cost of the first eight port assessments alone exceeded $1 million each. The FY2005 Homeland Security Appropriations Act, signed into law in late October 2004, has increased the Coast Guard's overall budget by 9 percent and allocated $100 million to support MTSA implementation. Assessments of port infrastructure and nearby assets are vital for devising protection methods from terrorist attack.

Conclusion

In spite of the apparent criticism inherent to any formal audit of America's homeland security policies, in the years since 9/11 the federal government has successfully managed to defend the nation from further attack. It is a testament to the strength of this county's institutions that such a blunt, pragmatic review can take place. Ours is an organic, ever-changing system that learns from its mistakes. Both pre-emption and vigilance have been promulgated as national policies, and whether they have succeeded by proactive effort or by default in spite of themselves, these policies have been a significant part of securing the nation. Yet no one foresees that strategies, which have worked in the past, should be continued unchanged, nor should new measures that might improve on the present systems be overlooked.

About the author:

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The Role of Federal Military Forces in Domestic Law Enforcement

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Present policies and attitudes on the use of federal military forces to enforce the law in the United States are inappropriate for the Global War on Terrorism. What was done in earlier times is unlikely to be a good way to assure the security of the homeland against terrorist attacks. Under current policies, Department of Defense (DOD) support to civil authority for catastrophic terrorist attacks is certain to be ad hoc, poorly planned, too little, and too late to provide effective help. An independent review of DOD policies on the use of federal military personnel to enforce the law within the United States is needed now.

The Problem

The gist of the problem is demonstrated by the first sentence of the extract below from the 2002 National Strategy for Homeland Security.

> *Federal Law prohibits military personnel from enforcing the law within the United States except as expressly authorized by the Constitution or an Act of Congress. The threat of catastrophic terrorism requires a thorough review of the laws permitting the military to act within the United States in order to determine whether domestic preparedness and response efforts would benefit from greater involvement of military personnel and, if so, how.*

Current polices and attitudes are based on the first clause of the first sentence, which emphasizes prohibition of using military forces to enforce the law. Future policies ought to be based on the second clause of the first sentence, which says that federal military forces can enforce the law if they are authorized to do so by an act of Congress. The problem is not the law per se but policies that flow from an inadequate appreciation of the powers that Congress has granted to the President. Current DOD policies are based on adherence to inappropriate historical precedents, unthinking application of recent court cases, and some reluctance to use military forces to enforce the law. DOD emphasizes restrictions placed on domestic law enforcement by judges instead of on the powerful presidential authorities granted by Congress.

The current situation is a culmination of over two hundred years of the use of federal troops to enforce federal laws in civil disorders. It is also an accurate reflection of recent trends in politics, defense funding, and societal attitudes. Unfortunately, the cumulative effects of these laws and policies are wrong for the present problem.

Historical Role of Federal Forces in Law Enforcement

Federal military troops have been used often to enforce the laws of the Nation. In the past two hundred fifteen years, the Army and, to a lesser extent, the Marine Corps has enforced the laws in over 167 incidents, or about 0.75 times per year on the average. Federal troops have been called on to quell insurrections, enforce unpopular federal laws, govern the seven states of the defeated Confederacy, protect minorities from harm, quell race riots, police the lawless West, guard the borders, break strikes, protect key assets against sabotage, seize and operate war plants, enforce civil rights laws, operate the postal service, and protect the population from lawless elements. (See U.S. Army Center of Military History, The Role of Federal Military Forces in Domestic Disorders, 1789-1878 (1988).)

Presidents of all persuasions have used federal troops when the need occurred. Presidents who opposed such use of troops while campaigning found that once in office they needed to do that very thing. In the early days the tendency was to rely first on the militia. It soon became apparent, however, that state militias were unreliable and in some cases, partisan, so ultimate reliance would have to be placed on the federal troops to keep the peace. Presidents still prefer to let governors rely on the state militias (now the National Guard) if they can, and indeed most domestic disorders have been handled without federal intervention.

The United States invariably has been unprepared, except for wartime periods, to deal in a timely manner with civil disorders and other domestic operations that require the use of federal troops. Laws and policies for the use of federal troops to enforce the laws were developed and institutionalized to follow the lessons learned from the previous response. As a result of this

reactive preparedness, these laws and policies have usually been ill suited to the new situations and different causes. It has been as if each incident were a completely new phenomenon. Many times, commanders of federal troops ordered to intervene in civil disorders were ignorant or unsure of the laws and the rules governing such operations. Current policies follow this pattern. They are based on past experience, which is unlikely to be the best for future incidents.

A major source of confusion is the *Posse Comitatus* Act, which many people believe—incorrectly—prohibits the use of federal troops to enforce the law in the United States.

What was originally no more than a way to prevent US attorneys and local sheriffs to require federal troops to enforce the law has become, in popular myth, a general proscription of any use of federal troops to enforce the law. This general belief is belied by the fact that despite the *Posse Comitatus* Act, Presidents after 1878 have used federal troops to enforce the laws when they saw fit to do so. Presidents have used the *Posse Comitatus* Act as an excuse to reject or avoid actions they did not want to do, but have not hesitated to work around the act to do what they wanted to do. During the labor riots of the late 19th Century, Presidents used federal troops to intervene in labor disputes under the pretext of protecting federal property. During World War I, President Woodrow Wilson breached the actual terms of the *Posse Comitatus* Act by allowing his subordinates to use troops without first obtaining his authorization. During World War II and for three decades thereafter, federal troops were frequently involved in law enforcement actions, such as surveillance, search, detention, and arrest in the course of authorized domestic operations. Federal troops not only enforced the law of the land, including making arrests and detaining lawbreakers, but they were expected to do so by a generally grateful public. The real intent of the original *Posse Comitatus* Act was to restore to the President sole authority to authorize the use of federal military forces to enforce the law in the United States.

The real effect of the *Posse Comitatus* Act has been to slow down the response time for the use of federal troops. In the West, after the Civil War but prior to the passage of the *Posse Comitatus* Act, local U.S. marshals and sheriffs could get the Army troops to help them enforce the law quickly and reliably, which was important in that place and time. After the passage of the *Posse Comitatus* Act, local lawmen had to ask through channels to the territorial governor, who had to ask the President, who, if he approved, would have to send the authority back down through the military chain of command – all resulting in so much delay that the bad guys usually got away. That reactive and laborious procedure remains in effect today.

Current reluctance to use federal troops to enforce the laws of the United States is a relatively new phenomenon. In the 1960s, some elements of the leadership elites began to regard the use of federal troops to enforce the laws as not only unnecessary but wrong. Starting in the 1970s and continuing thereafter, court decisions have had the effect of restricting the role of federal troops in domestic law enforcement by reinterpreting the meaning of the *Posse Comitatus* Act. The modern revised version of the *Posse Comitatus* Act is widely accepted today as the law of the land. It is the basis for the myth that federal troops may not enforce the laws at all. This situation is widely accepted by all parties and supported by civil libertarians, liberals, and conservatives who for varying reasons do not want federal troops to enforce the law.

In response to the restrictions imposed by these judicial revisions of the *Posse Comitatus* Act, Congress has passed and Presidents have signed into law several statutes that delegate to the President and the Secretary of Defense authority to use federal troops and civilian employees of DOD to enforce the law. The presidential authority granted by Congress in the so-called Insurrection Act (10 USC 331-334) is sufficient to safeguard the Nation, but once the courts began to impinge on that presidential authority, Congress acted to make additional delegations. After 1976, when laws were passed to authorize military support for law enforcement agencies involved in counter-drug operations, immigration and tariff enforcement, and dealing with weapons of mass destruction, a provision was included precluding military personnel from active participation in law enforcement. This meant that DOD could give advice and loan equipment but could not come into contact with suspects, make arrests, operate equipment, or gather intelligence. Even for incidents in which chemical or biological weapons are suspected, under 10 USC 382 military personnel may not search for them, seize them, or otherwise actively assist unless such action is "considered necessary for the immediate protection of human life, and civilian law enforcement

officials are not capable of taking the action." Court decisions have had the effect of substantially limiting what federal troops can do even against terrorists armed with weapons of mass destruction.

The nature of civil disorders has changed a lot since George Washington called forth the militia to quell the Whiskey Rebellion. Conflicts between labor and management and among the races are no longer major problems. The need for federal troops to enforce the law has diminished as state and local law enforcement agencies increased in strength and capability. However, the new threat to the United States posed by terrorism ushers in a new and unprecedented situation. The new threat to civil order is not only the terrorists themselves, but also criminal elements that will take advantage of panic and confusion among the populace to riot and loot. In these cases, federal military troops will be called on yet again to enforce the law and protect the people, property, and institutions of the United States.

Law Enforcement Tasks for Federal Troops

In a catastrophic terrorist attack, federal troops will be needed to accomplish the following tasks:

Protect the People from Violence. The direct violence of the attacks and disasters is likely to be compounded by violence provoked by them. Some elements will seek to take advantage of the situation to loot, and others will engage in violence to pursue their own agendas. Law enforcement agencies have the duty to protect the people from the effects of this violence. The role of the federal troops in situations requiring their use to enforce the laws is to assist police and National Guard forces to quell riots, prevent looting, and provide security. These actions are intended to restore stability and security enough to allow police to go about their normal law enforcement business unhampered and other emergency responders to do their work in a secure environment. To protect the people, federal troops will have to stop, search, apprehend, and detain looters and rioters, sometimes in direct support of police officers but sometimes not.

Protect Key Facilities. Federal troops and civilian and contractor police officers are responsible for protecting DOD facilities and civil facilities deemed essential for the accomplishment of DOD's expeditionary missions, or to the well-being of the nation. DOD may have a role in protecting non-DOD critical assets that are part of the National Critical Infrastructure Protection Program. Force and infrastructure protection requires troops to enforce the law by detecting, apprehending, detaining, and repelling by force groups or individuals that attack key facilities.

Control Mass Movement of People. Emergencies often involve planned or spontaneous movement of people as they seek to avoid danger. In catastrophic emergencies, these movements will be very large and will be beyond the capability of law enforcement agencies to control. In these events, federal military forces will assist in the planning, preparation, conduct, and enforcement of evacuations, quarantines, and stay in place policies. In doing this, federal troops will be enforcing the laws.

Provide Essential Supplies and Services to the People. Victims of emergencies need food and water, medical care, and other essential supplies and services to mitigate the consequences of the emergency. When an emergency is of such a large size, scope, or duration as to exceed the capabilities of the normal providers, federal troops can provide emergency supplies, services, transportation, and logistical management capabilities to meet the urgent needs of the people. Delivery of emergency support and services may involve enforcing the law to assure equitable distribution of goods and services.

Augment the Capabilities of Civil Organizations. Because of its readiness to wage war overseas, DOD has greater capabilities in some technical aspects of homeland security than most civil organizations, particularly local and state agencies. These capabilities are in chemical weapons, biological warfare agents, and (along with the Department of Energy (DOE)) nuclear weapons and radiation. DOD also has highly developed abilities with respect to command and control, intelligence, and communications. DOD can enhance management of terrorist attacks by making its technical capabilities available to local agencies.

Legal Authority to Use Federal Troops to Enforce the Law

The Insurrection Act is the most important legal authority for the President to authorize the use of federal troops to enforce the law. The Insurrection Act (there is really no single 'Insurrection Act' per se but this name has been applied collectively to the four statutes noted

below) consists of four statutes enacted at different times for different reasons that, when considered as a whole, provide the power that Presidents have used many times as the legal basis for using troops to enforce the law. The four sections of the act are as follows:

- Title 10, Section 331 was enacted in 1792 in response to challenges to the taxing power of the federal government. It allows the President, at the request of a governor or state legislature, to put down an insurrection by calling into federal service sufficient militia to "suppress the insurrection."

- Title 10, Section 332 was enacted in 1861 at the outset of the Civil War. It allows the President to use the armed forces to enforce the laws or suppress a rebellion whenever, in his opinion, unlawful obstructions, combinations, or assemblages or rebellion against the authority of the United States make it impractical to enforce the laws using the course of judicial proceedings.

- Title 10, Section 333 was enacted in 1869 during the Reconstruction Era. It allows the President to use the armed forces or militia to respond to insurrection, domestic violence, unlawful combination, or conspiracies that prevent a state government from enforcing the laws.

- Title 10, Section 334 was enacted in 1861. It prescribes that the President shall issue a proclamation calling on insurgents to disperse before using the militia or armed forces to enforce the law.

The Insurrection Act is the most sweeping authority for the President to authorize and order the use of the federal troops for domestic operations. The President may not act on warning or even at the start of an incident, but must wait until the governor or a state legislature asks for federal assistance. This tends to discourage advance preparations and movements of troops—although Presidents have authorized such actions. This tiered approach in which the federal government acts only after local and state governments have failed, was workable when the cost of delayed response was acceptable, but it is inappropriate for the current situation.

In addition to the Insurrection Act, Congress has enacted numerous laws that authorize the use of federal troops to enforce the law and/or assist local law enforcement agencies for specific purposes. The laws are presented in the order in which they were originally enacted, show the year originally enacted, and identify the official to whom the authority was delegated. (See DODD 5525.5, Enclosure E) Congress has enacted laws to allow the use of federal troops to do the following: execute quarantine and health laws (42 USC 97), 1799; remove persons unlawfully present on Indian lands (25 USC 180), 1834; protect rights of a discoverer of a guano island (48 USC 1418), 1856; support certain customs laws (50 USC 220), 1861; execute certain warrants relating to enforcement of specified civil rights laws (42 USC 1989), 1866; protect national parks and certain other federal lands, 1883; remove unlawful enclosures from public lands (43 USC 1065), 1885; support neutrality laws (22 USC 508 and 461-462), 1915; crimes against foreign officials, official guests of the US, and other internationally protected persons crimes (18 USC 112 and 1116), 1948; support of territorial governors if a civil disorder occurs (48 USC 1422 and 1591), 1950; protection of the President, Vice President, and other Designated dignitaries (18 USC 1751), 1965, and Presidential Protection Act of 1976; crimes against Members of Congress (18 USC 351), 1971; and enforce Fishery Conservation and Management (16 USC 1861), 1976, which authorizes DOD to support Coast Guard law enforcement efforts upon request.

The three most important and recent laws in this regard are the following:

- Title 18 USC, Section 831 authorizes DOD to provide assistance to the Department of Justice for incidents involving nuclear materials when the Attorney General and Secretary of Defense determine that an emergency exists that poses a serious threat to the Nation, the provision of assistance will not impair the "military preparedness" of the Nation, "enforcement of the law would be seriously impaired if the assistance is not provided," and "civilian law enforcement personnel are not capable of enforcing the law." Under this section, federal troops may arrest persons, conduct searches and seizures, protect persons and property from violence, and take other actions incidental to law enforcement.

- Title 10, Section 382, 1996, authorizes the Secretary of Defense to provide assistance in responding to chemical and biological attacks when the Attorney General and the Secretary of Defense jointly

determine that an emergency situation occurs that poses a serious threat to the United States. DOD may provide assistance when civilian expertise and capability are not readily available, the special capabilities of DOD are necessary to counter the threat, and the provision of the assistance will not affect adversely the military preparedness of the United States. The law precludes military personnel from making arrests, participating directly in searches and seizures, and collecting intelligence for law enforcement purposes.

- Title 10, Chapter 18, Sections 371-382 authorizes the Secretary of Defense to provide support to civilian law enforcement agencies including information gained in military operations, military equipment and facilities, training, and advice for civilian law enforcement officials. It does not authorize direct participation of military personnel in a search, seizure, arrest, or similar activities unless otherwise authorized by law.

In addition to these laws, DOD asserts the inherent right for military troops and civilian employees to enforce the law under stated conditions for the following purposes (DODD 5525.5, 15 January 1986): to use military forces under the Insurrection Act with respect to insurgency, domestic violence, or conspiracy that hinders the execution of State or Federal law; furthering a military or foreign function of the United States, regardless of incidental benefits to civilian authorities or for the conduct of military or foreign affairs; enforce the Uniform Code of Military Justice (UCMJ), in response to a request by the DOD Inspector General, likely to result in administrative proceedings by DOD, or relating to the commander's inherent authority to maintain law and order on a military installation or facility; protect classified military information or equipment, DOD personnel, equipment and official guests, and federal property and functions, including the use of troops when the need for protection exists and duly constituted local authorities are unable or decline to provide adequate protection; when detailed or under the operational control of another government agency that is authorized to enforce the law; protect federal property or functions when state or local authorities are unable or decline to provide adequate protection (DODD 2035.12); and when prompt and vigorous federal action is necessary to prevent loss of life or wanton destruction of property, and to restore governmental functioning and public order when sudden and unexpected civil disturbances, disasters, or calamities seriously endanger life and property and disrupt normal government functions to such an extent that duly constituted local authorities are unable to control the situation (DODD 5525.5, 15 January 1986), and circumstances preclude obtaining prior authorization by the President (DODD 2035.12).

The laws governing the use of federal military forces to enforce the law are a hodge-podge of legislation enacted piecemeal to suit particular needs believed to be of great importance at the time of passage, and recent judicial opinions designed to fit current sensitivities. Recent laws ratify the restrictions imposed by judicial intervention on the *Posse Comitatus* Act. As noted above, confusion engendered by the various laws is compounded by a widespread belief within DOD and elsewhere that federal troops may not enforce the law at all. This confusing and unsatisfactory situation appears to call for codification and reassertion of the power of Congress to authorize the use of federal troops to enforce the law as provided for in the Constitution. However, given the prevailing climate of conversation on public policy, the opposition of many to any increase in federal powers, and aversion of many others to any use of troops in law enforcement, it is unreasonable to expect concerted Congressional action on this matter. If this issue is to be resolved, it will have to be done by transforming DOD policy.

DOD Policy on the Use of Federal Military Forces to Enforce the Law

DOD policy recognizes that the primary responsibility for protecting life and property, and maintaining law and order in the civilian community, is vested in the State and local governments. Supplementary responsibility is vested by statute in specific Agencies of the Federal Government other than the Department of Defense. DOD policy also recognizes the responsibility of the Federal Government, including DOD, to assist the states to maintain order. It recognizes that military forces can and will be used to support law enforcement agencies. It makes it very clear that the President may authorize the use of military forces to enforce the law, and it even allows local commanders under certain circumstances to use their assigned military forces to do so even before Presidential authority is obtained. This part of the official policy provides a satisfactory basis for DOD to carry out its homeland defense missions, but it is complicated by the conditions

attached by DOD to such use. DOD uses six criteria for evaluating all requests for civil support (see OSD, "The DOD Role in Homeland Security", July 2003, and DODD 3025.15, 18 February 1997, p. 3).

- Legality—Is the requested support in compliance with applicable law?
- Lethality—Is there a potential use of lethal force by or against DOD forces?
- Risk—How will the safety of DOD forces be jeopardized?
- Cost—Who pays and what is the impact on the DOD budget?
- Appropriateness—Is it in the national interest for DOD to conduct the requested mission?
- Readiness—What is the impact on the ability of the DOD to perform its primary mission?

These rules are reasonable if applied to minor incidents in which DOD assistance is requested but may not be urgent or critical. Without such criteria, DOD could be involved in minor incidents that states or other agencies ought to manage themselves. These incidents might include fighting wildfires, a flood, tornadoes, and similar small natural disasters. However, these criteria are inappropriate to serve as the decision framework for whether DOD should provide support for a catastrophic terrorist attack. They assume that DOD has the luxury of considering and rejecting domestic missions found inconvenient or dangerous, but ignore the reality that a President can and will override this process when DOD assistance is needed urgently to protect the people.

In addition to the criteria discussed above, there are five basic conditions for the use of federal troops.

- *There must be a serious situation in which the national security of the United States is at risk.* It is logical to assume for planning purposes that catastrophic terrorist attacks (and perhaps all terrorist attacks) are serious enough to warrant the use of federal military troops. It would be helpful to make it clear so that other agencies involved in Homeland Security have an idea about when and in what strength federal military troops will be available to help. In fact, one definition of a catastrophic incident (attack or disasters) is one in which federal aid will be needed immediately.
- *Military Personnel must remain under command of their commanders and not serve under other agencies*. This is a sensible condition.
- *The state or federal agency wanting the support must ask for it*. This condition is a legacy of the traditional way that federal forces have been made available to enforce the law. It is inappropriate for the current situation. DOD, in collaboration with the Department of Homeland Security (DHS) and other agencies, must adopt a proactive approach to deal with catastrophic terrorist attacks and disasters.
- *Granting the request must not impair military preparedness or the conduct of on-going operations*. This condition suggests that DOD is somewhat reluctant to perform what is supposed to be its top priority mission. Since DOD programs no resources for civil support, this condition will allow DOD to refuse all requests for assistance– for any use of resources to meet an unprogrammed requirement, by definition, diminishes DOD's capacity to meet programmed requirements.
- *The state and local governments must be overwhelmed before federal troops can move in*. Waiting until local and state authorities are overwhelmed and beg for help is federalism taken to a ridiculous extreme. The traditional practice of waiting to be asked and responding only when the locals and states are exhausted is completely inappropriate for the current homeland security situation.

Despite all the foregoing discussion of restrictive laws and conditions for use, DOD knows very well that it will have to provide federal troops to deal with future civil disturbances as it has done repeatedly in the past. There is a tacit understanding to this effect among those DOD officials involved in homeland defense, but these officials prefer not to publicize preparations for this kind of operation because they don't want to encourage a lot of unnecessary requests from civil authorities for federal troops to help out in every disorder that occurs. For major disorders, DOD is prepared and has plans to employ federal military forces to enforce the law. The

way that DOD will respond is presented in some detail in the GARDEN PLOT plan. The DOD Civil Disturbance Plan (GARDEN PLOT) is the implementing document for Military Support of Civil Disturbances (MACDIS). This is the most recent approved plan, and it contains organizational arrangements and assignments that have changed significantly with the creation in 2003 of the Assistant Secretary of Defense for Homeland Defense, the Northern Command (NORTHCOM), and the transfer of the Directorate of Military Support to the Joint Staff. (See Department of Defense Civil Disturbance Plan, 15 February 1991; a new version is under preparation.)

While recognizing that the primary responsibility for "protection of life and property and the maintenance of law and order" within the United States rests with local and state governments, this plan sets forth the conditions and procedures for the "employment of federal military forces to control civil disturbances..." GARDEN PLOT sets forth four instances in which federal forces may be used:

- The use of federal forces "…normally will be authorized by a presidential directive or executive order directing the Secretary of Defense to help restore law and order in a specific state or locality."

- In response to domestic terrorist incidents and as specifically authorized by the President. (In this context, domestic terrorism means terrorist attacks that occur in the United States and not that the terrorists are people residing in the United States. The requirement for presidential authorization is a DOD policy, not a legal requirement.)

- Protection of federal property and functions.

- "Sudden and unexpected civil disturbances (including civil disturbances incident to earthquake, fire, flood, or such calamity endangering life) where immediate response is required and where the lack of communications prevent an immediate response." (DOD Civil Disturbance Plan, Annex A, p.1)

The basic concept of operations is spelled out in the civil disturbance plan in Annex C. The President may direct the employment of federal military forces for domestic civil disturbance operations for a major disturbance or for multiple civil disturbances. The plan envisions a probable order of employment of forces as follows: local and state police, National Guard on state active duty, federal civil law enforcement officers, and finally federal military forces.

- The Attorney General will be the chief civilian official in charge of coordinating all federal activities relating to these civil disturbances. He will designate a senior civilian representative to be located in each area where federal forces are committed and coordinate the activities of federal law enforcement agencies with state and local agencies.

- The DOD executive agent for domestic operations is the Assistant Secretary of Defense for Homeland Defense, acting through the Joint Directorate of Military Operations. This executive agent or a supported combatant commander will be in overall charge of the civil disturbance operations.

- Northern Command has responsibility for the entire United States, except for Hawaii, which is the responsibility of Pacific Command.

- A joint task force (JTF) commander will conduct the operations in a designated area of responsibility using "military resources from the military departments, DOD agencies, and the unified and specified commands" as necessary to deal with the disturbance.

GARDEN PLOT makes it clear that the limitations that courts have ordered on federal military troops are superfluous and irrelevant when the President orders the DOD to use military troops in civil disturbances. It appears that DOD has promulgated two sets of policies: one using the modern revised version of the *Posse Comitatus* Act as a shield against using troops to enforce the laws actively, and another using presidential authority to use troops to enforce the laws when it really becomes necessary to do so. This bifurcated policy may have been acceptable in earlier times when the United States was a secure base from which to wage expeditionary warfare abroad, but is does not make sense when the United States is itself a theater of war.

Summary of DOD Policy

DOD policy is out of date. The relevant DOD directives are dated from the mid-1990s before the Global War on Terrorism, and its policy content is still based on

Cold War thinking and earlier experience. This policy ought to be based on the current and future situation. It also needs to be revised to take into account the existence of the DHS and new organizational arrangements in DOD for homeland defense, including the establishment of NORTHCOM.

DOD policy is deceptive. While focusing on and extending the restrictions in law on the use of federal troops to enforce the law, DOD fails to emphasize presidential authority under the Insurrection Act that carries with it no restrictions on the ability of federal troops to enforce the law. This duality needs to be ended, and a single, integrated policy on the use of federal military forces under current circumstances put into place.

It is unlikely that DOD can itself conduct an objective review of its policies on this issue. The present dual policy approach is ingrained; the *posse comitatus* myth has many believers; and many officials and military officers consider it inappropriate to use federal military forces to enforce the law. However, this issue is too important to be allowed to languish unheeded. DOD should conduct an independent review of this issue to assure that policies on the use of federal military forces are appropriate for the current situation.

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U.S. Joint Forces Command's Response to the Terrorism Threat Against the Homeland

Dr. Leo Hirrel
U.S. Joint Forces Command

Introduction

The experiences of US Joint Forces Command (JFCOM) immediately after the attacks of 11 September 2001 demonstrate the capabilities and limitations of the military in protecting the American population from unconventional threats to our security. Traditionally the Department of Defense (DOD) has protected the United States from attack by the armed forces of an existing nation's conventional military forces, whereas criminal activities by foreign nationals have been the responsibility of civilian law enforcement officials. Similarly, the job of repairing the damage has been the responsibility of state and local officials, with federal assistance only when necessary.

The severity of these attacks and the fact that they emanated from a shadow organization outside of the United States blurred the distinction between civil and military responsibilities. JFCOM responded by placing its capabilities in support of non-DOD agencies. To be sure, JFCOM had routinely provided military support to civil authorities before these attacks, yet the scope and intensity greatly increased after the terrorist attacks.

The 1999 Unified Command Plan

Under the Unified Command Plan (UCP) in effect as of September 2001, the continental United States (CONUS) remained outside of any combatant commander's area of operations. Nevertheless, as the unified command with command of over 80 percent of the CONUS based conventional forces, Joint Forces Command was uniquely suited to direct the military support for the land and maritime aspects of homeland security (HLS).

Two specific provisions of the 1999 UCP expanded upon JFCOM responsibilities. The first provision assigned Joint Forces Command the responsibility for planning the land and maritime defense of the continental United States.

The second provision expanded upon the JFCOM mission of providing military assistance to civil authorities by including a provision to support consequence management for incidents involving weapons of mass destruction. Secretary of Defense William Cohen further amplified upon this provision by directing the creation of a Joint Task Force (JTF) - Civil Support. Recognizing the potential for a terrorist organization to inflict tremendous damage upon the United States if they acquired certain weapons, the Secretary wanted an organization that could bring many peculiarly military capabilities to support consequence management upon the request of the civil authorities. Following its activation in October 1999, JTF-Civil Support progressed through a number of exercises to establish an operational capability.

Nevertheless, the UCP left some unresolved questions about the role of DOD in homeland security. The continental United States remained outside of the area of operations of any unified command. Responsibilities for supporting homeland security were divided among the various commands. In addition to JFCOM, the North American Aerospace Defense Command (NORAD) had responsibility for air defense of the United States and Canada. Strategic Command managed the cyber net aspects of homeland security. Creation of U.S. Northern Command (NORTCOM) in 2002 substantially alleviated the division of responsibility, although other commands, notably Strategic Command and Pacific Command still have HLS responsibilities.

Immediate response after the attacks

Even as they observed the attacks of 11 September, leadership within JFCOM looked for ways to defend the United States from further damage. The most immediate need was for support to NORAD for aircraft to prevent further damage in the event of more hijacked aircraft. Air Combat Command, which is the air component of JFCOM, immediately dispatched aircraft in support of NORAD. The Navy soon proposed an even more radical way to augment NORAD, by placing two carriers, the George Washington and the John F. Kennedy, off the Atlantic Coast as one more source of aircraft. In the crisis, the personnel involved developed an ingenious command relationship by making the Commander of Second Fleet a sector commander under the operational control of NORAD.

JFCOM also offered to assist the recovery of New York City. Given the catastrophic nature of the damage, it was assumed that military support would be necessary. When an advance team from JTF-Civil

Support arrived in New York City however, they discovered that the robust nature of the city's emergency response services, when combined with state capabilities, eliminated the need for federal military assistance. Under other circumstances the military and JTF-Civil Support would have been expected to play a significant role, but not in this case.

JFCOM did help to coordinate the dispatch of the hospital ship USNS Comfort through the office of the Chief of Naval Operations. Originally expected to be emergency medical assistance, the ship became a means to provide meals and sleep to rescue workers at the incident site.

Military Capabilities for Operation NOBLE EAGLE

On 13 September 2001, Secretary of Defense Donald Rumsfeld designated military operations in support of homeland security as Operation NOBLE EAGLE. That same day the JFCOM Commander, General William F. Kernan, directed the creation of a Homeland Security Directorate by pulling people from other directorates. On 16 October the Chairman of the Joint Chiefs of Staff issued an execute order confirming JFCOM responsibilities for land and maritime homeland security. In January 2002 the directorate became a subordinate command, known as the Standing Joint Force Headquarters Homeland Security, with the mission of providing operational level command and control for homeland security functions.

The peculiar nature of the threat created legal questions for military organizations seeking to support homeland security. Accustomed to using the military to fight conventional enemies, American law and tradition did not envision using the military for law enforcement purposes. Yet even though these were attacks emanating from outside the United States, they were still criminal acts by individuals.

The Posse Comitatus Act of 1878 (18 U.S. Code Section 1385) prohibits Army and Air Force personnel from executing the civil laws of the United States, "except in cases and under circumstances expressly authorized by the Constitution or Act of Congress." The law under 18 U.S. Code Sections 331-335 did provide for limited exceptions such as the Insurrection Act, which allowed the use of federal forces when civil authorities could not, or would not, enforce the law. Other laws (18 U.S. code Sections 371-382) allowed limited assistance to law enforcement agencies including response to weapons of mass destruction. The National Guard, when operating under state authority, did not encounter the same restrictions. Executive Orders 12333 and 12334 severely restricted intelligence targeting of United States entities. Federal law did, however, allow military support to disaster relief under the Stafford Act.

The JFCOM response to the legal issues was to place the military capabilities at the disposal of non-DOD agencies, but always acting in a subordinate role. The focus remained upon what the military could do within the legal boundaries. Capabilities developed in response to battlefield requirements were often exceptionally well suited for mitigating the damage caused by terrorists. The military expertise in decontamination following a chemical, nuclear, or biological attack was a potentially invaluable resource in the event that terrorists used these weapons. Similarly, the military also possessed logistical and medical services that might be used to assist victims of an attack. In all cases the use of JFCOM resources were used only upon the request of non-DOD organizations.

In addition to the other forms of military support to homeland security, General Kernan wanted a capability to dispatch troops to the site of a terrorist attack or a potential attack upon short notice, usually within a matter of hours. Because National Guard units could not be available on such short notice he decided to create his force using federal troops, either Army or Marine Corps. The plan envisioned one company (typically infantry) to be available upon very short notice, with a full battalion to follow. To move the units, U.S. Transportation Command agreed to make C-130 aircraft available.

Maritime Security

Maritime security was a responsibility of the U.S Coast Guard, which at that time belonged to the Department of Transportation (the Coast Guard is now part of the Department of Homeland Security). Even though it is one of the Armed Forces, the Coast Guard has a different statutory basis from the other Armed Services, which provided for extensive law enforcement authority. While part of the Department of Transportation, the Coast Guard derived its authority from Title 14 of the U.S. Code, whereas the Department of Defense derives its authority from Title 10.

Yet even before the terrorist attacks the Coast Guard was hard pressed to perform its mission with its limited resources. General Kernan recognized that Atlantic Fleet owned coastal patrol craft originally intended to support Special Operations Command, but which were no longer needed. Consequently, Joint Forces Command worked with all of the interested agencies to place these ships under the tactical control of the Coast Guard. When in support of the Coast Guard, the Navy employed procedures that had been developed during counter drug operations, where a Coast Guard law enforcement detachment remained on the ship and directed actual boarding operations.

Support to Civil Authorities

Another form of assistance to civilian authorities during this crisis came through increased military support to National Special Security Events (NSSE). Whenever the Department of Justice believed that a high visibility event presented an especially attractive target for terrorists, the Attorney General could determine that it required special protection. Such events might vary through such occurrences as a State of the Union Address through the Superbowl games. Military units, including explosive ordnance disposal and chemical decontamination units, remained on alert to provide added assistance during these events. Like other actions in response to the terrorist threat this support marked an expansion of previous practices, not a new policy.

The 2002 Winter Olympics at Salt Lake City presented an interesting challenge. Traditionally the Department of Defense had provided logistical assistance to international sporting events, and this support continued through these games. However, the heightened security threat required more personnel than available through existing security forces. Federal military forces were not suitable for security purposes because of the Posse Comitatus Act. Consequently the state of Utah used its National Guard for this purpose, as assisted by Guardsmen borrowed from other states but still operating within their status as a state force (Title 32 U.S. Code). Therefore, military support operated with two separate chains of command. Federal forces including those National Guard units operating under federal authority provided logistical support to the games. National Guard units operating under state authority performed security work.

A different task for military personnel followed requests by the Customs Service and the Immigration and Naturalization Service for assistance in securing the nation's borders. Because this mission supported a federal requirement, it was not legally possible to employ National Guard units while in a Title 32 status. Therefore, the decision was to employ National Guard units for this purpose, but first to place them in a federal status (Title 10). The individual Guardsmen were then "detailed" to the federal agency. When operating under the direct control of civilian agencies in this capacity, the restrictions of the Posse Comitatus Act did not apply.

Conclusion

In the aftermath of the terrorist attacks Secretary Rumsfeld concluded that the existing Unified Command Plan did not provide for adequate unity of effort related to homeland security. Consequently, the 2002 version created an entirely new command, which would have responsibility for most aspects of homeland security, including the functions of both North American Air Defense Command (NORAD) and JFCOM. The new plan became effective on 1 October 2002, and the JFCOM role then changed to supporting the new command in assuming the homeland security mission.

JFCOM assumed responsibility for military support to the land and maritime aspects of homeland security during the year following 11 September 2001, a critical time in our nation's history. Faced with the sudden danger presented by foreign terrorists, this command needed to find ways to deliver military capabilities in support of homeland security, while remaining within the legal boundaries. The command found ways to work with civilian agencies and to place military resources in support of the civilian governments, when requested.

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Dr. Leo Hirrel is the command historian at U.S. Joint Forces Command. After earning his Ph.D. from the University of Virginia in 1989, he has been employed in both historical contracting and government history positions. He retired from the Army Reserve in 2002 with the rank of lieutenant colonel after 28 years of service. His publications include: Children of Wrath: New School Calvinism and Antebellum Reform; United States Atlantic Command, 50th Anniversary; and, Response to Terrorism: U.S. Joint Forces Command and the Attacks of 11 September 2001.

The U.S. Army Veterinary Corps and Homeland Security

COL Gary Vroegindewey
U.S. Army Veterinary Corps

Introduction

The US Army Veterinary Corps consists of over 415 Active component (AC) and over 175 Reserve component (RC) Veterinary Corps officers, who are supported by more that 61 AC and 14 RC warrant officers, 1402 AC and 473 RC enlisted personal, and 400 civilian employees. These groups comprise the U.S. Army Veterinary Service. The Army serves as the Department of Defense (DOD) Executive Agent for Veterinary Service, providing support to the Army, Navy, Air Force, Marines, and Coast Guard. In addition, the Veterinary Corps actively supports federal agencies such as the Department of the Treasury, Department of Agriculture, Food and Drug Administration, and Department of Homeland Security.

Varied missions

The U.S. Army Veterinary Corps has three core missions: food safety, veterinary health services, and research and development. The Veterinary Corps preserves the health of the joint force through an aggressive food safety and security program designed to minimize the risk of food and waterborne disease. By regulation, all food procured by the DOD must be from US Army Veterinary Service approved sources both in the Continental United States (CONUS) and out of CONUS (OCONUS). The Army Veterinary Command manages this program in CONUS and the Pacific Region, while veterinary table of distribution and allowance (TDA) and table of organization and equipment (TOE) assets are responsible for establishing and maintaining the food inspection programs in Korea, Europe, and operational theaters. The program starts with inspecting local commercial food producing establishments and creating a list of sanitarily approved food sources for DOD procurement. From production, subsistence for DOD consumption is monitored through shipping, storage, on receipt, and at distribution points to ensure quality, safety, and security. Finally, food safety is ensured through laboratory testing performed in regional veterinary laboratories. Similarly, Veterinary Services (VS) personnel are engaged in ensuring the quality and safety of operational rations from production through distribution.

The primary focus of the veterinary health services is support of the DOD military working dogs (MWD) program. This begins with Army veterinarians selecting dogs for purchase, monitoring and treating working dogs through training, and providing comprehensive medical, surgical, and dental support to MWD wherever they are deployed. In addition, Veterinary Service personnel provide animal care to Service members' privately owned animals, with an emphasis on preventive medicine and zoonotic (animal to human) disease control. This activity preserves a healthy and fit force through prevention of infectious disease and supporting the vital bond between humans and animals that contributes to emotional and spiritual health. Veterinary Corps officers also provide animal medical care to the Navy Marine Mammal Program; operational support in the Central Command (CENTCOM) theater for special forces and civil affairs units in nation capacity building; civil-military operations; and humanitarian civic actions. Future growth in the special operations arena will place increasing demands on the Veterinary Corps to support worldwide activities.

The third key mission of the Veterinary Corps is in the research and development arena. Approximately thirty percent of our officers are engaged in a wide range of activities, from basic research in physiology, microbiology, and toxicology to development of life-saving products such as chemical bioscavengers, synthetic blood expanders, hemostatic bandages, and vaccines. We support the management of all DOD laboratory animals critical to research and staff key diagnostic and research positions at DOD research institutes including the Armed Forces Institute of Pathology, Center for Health Promotion and Preventive Medicine, U.S. Army Medical Research Institute for Infectious Disease, Institute for Surgical Research, and Institute for Chemical Defense. Research and development Veterinary Corps officers are involved in a wide array of programs from the field investigation of emerging diseases like SARS (Severe Acute Respiratory Syndrome), all the way to serving as scientific policy advisors for Pentagon and White House working groups.

The Veterinary Services are transforming to meet the current and future warfighter's needs. In fiscal year 2004, VS successfully completed a force design update package to create two new field units: Medical

Detachment (Veterinary Service) and Medical Detachment (Veterinary Medicine). The units were structured to be one hundred percent mobile, modular, and tailorable with split-based capability. The medical equipment sets were modified to be lighter, smaller, and more mobile–leveraging new technologies such as digital radiology and ultrasound to increase capabilities with small power and weight/cube requirements. A portable, rapid food diagnostic capacity was placed in units to provide forward real-time food testing in the field.

Homeland security support

Supporting homeland security activities continues to be an essential element of the VS. Two training courses, Food Safety and Security and Veterinary Disaster Operations, have been developed and executed to increase the ability of our personnel to respond to a broad range of natural and terror directed disasters. These joint courses have brought together uniformed Services trainers and attendees, along with local, state, and federal agency participation, to strengthen our collective ability to support the National Response Plan. The U.S. Army Veterinary Command (VETCOM) has developed and trained special medical augmentation response teams-veterinary (SMART-V) to be able to deploy supporting disaster management response requirements. These teams have provided essential training to the civilian veterinary medical assistance teams, part of National Disaster Medical System. The DOD's VS Agency partnered with the U.S. Army Center for Health Promotion and Preventive Medicine to produce TG-188, U.S. Army Food and Water Vulnerability Assessment Guide, to formalize the risk assessment process in protecting our food and water sources.

Food and agriculture are two of the national infrastructure sectors designated in the National Strategy for Homeland Security. Homeland Security Presidential Directive-9 outlines the critical nature of the food and agriculture sector, and the need for interagency and civilian cooperation to protect these sectors. Agroterrorism is widely recognized as a credible threat to our highly integrated, intensive production, just in time farm to fork food chain. Not only is our food supply vulnerable to chemical and biological agents harmful to our population, but also agriculture production is highly vulnerable to the unintentional or deliberate introduction of foreign animal diseases (FAD) such as foot and mouth disease, rinderpest, and Rift Valley fever. The DOD Veterinary Service Activity has trained over 100 Veterinary Corps officers at the Department of Homeland Security's Plum Island Foreign Animal Disease Diagnosticians course to provide Military Assistance to Civilian Authorities in the event of a foreign animal disease outbreak in the United States.

In addition, VS personnel have developed and participated in numerous civilian and military exercises and conferences to build civil and military capacity to respond to domestic CBRN (chemical, biological, radiological, and nuclear) events, including Silent Swarm, High Plains Guardian, TOPOFF, TOPOFF 2, and the National Defense University Silent Prairie exercise. We have assigned a veterinary staff officer to the Northern Command (NORTHCOM) surgeon's office to develop future plans and coordinate operational requirements; and have delegated a Veterinary Corps U.S. Department of Agriculture (USDA) liaison officer to validate and facilitate support to USDA in the event of a FAD outbreak. Real-world civil affairs support was provided to the USDA during the 2002 avian influenza outbreak in the Shenandoah Valley, when two teams were deployed to assist in the eradication of the disease. Veterinary laboratory capacity was expanded at the DOD VS Activity Food Analysis and Diagnostic Laboratory for military-civilian collaborative testing executed in the West Nile Virus Surveillance Program.

Foreign animal disease issues are an important consideration in the Global War on Terrorism (GWOT). VS personnel provide liaison with U.S. Customs officials and lend expertise to prevent FAD from entering the United States and OCONUS staging/basing areas through education of troops and decontamination of equipment. VS personnel have also served with research and disease survey teams in conjunction with host nation Ministries of Agriculture in the CENTCOM area of operations to develop cooperative programs to control endemic FAD, and thus strengthen the agriculture industries of developing nations. Other recent VS missions in support of homeland security include support to the Secret Service at the 2004 Republican National Convention and 2004 Democratic National Convention; support to Joint Task Force-Olympics at the 2002 Winter Olympics; and veterinary support for the 2004 G-8 conference.

Overcoming challenges

The Veterinary Corps faces many challenges in providing the highest standards of food safety and veterinary health services for joint forces deployed in

support of the GWOT. These are listed below with attendant recommendations.

1 - Rapid and wide dispersion of troops challenges the ability to provide approved sources in hostile and disease-ridden environments.

- Recommendation: VS personnel need to be early deployers with Force Flow packages in order to identify safe sources of food and water. This will both support Force Health Protection and increase morale through supplementing operational rations. Early entry will also help maintain the quality and safety of operational rations pouring into a developing Theater.

2 – U.S. Army Veterinary Service units have tri-Service mission requirements throughout the joint operations area, which have proven to be difficult to execute under the current Army-centric command and control (C2) structure.

- Recommendation: Place VS units under a joint medical command structure to allow access to the full DOD mission.

3 - Wide dispersion and mobility of Military Working Dog Teams in a hostile security environment creates a challenge to provide emergency medical care.

- Recommendation: Create a 91T (Animal Care Technician) military occupational specialty equivalent to the 91W (Combat Medic) to enhance emergency medicine capability.

4 - The division of food safety between U.S. Air Force, Navy, and Army preventive medicine units and Veterinary Services creates a potential for vulnerability gaps.

- Recommendation: Assign the mission for all food safety to the Veterinary Service and thus free preventive medicine to focus on non-food related force health protection issues.

5 - Veterinary staff officers at CENTCOM and NORTHCOM have been critical for coordinated delivery of support to GWOT and homeland security response planning and execution.

- Recommendation: Create permanent veterinary staff officer positions at both CENTCOM and NORTHCOM.

6 – Operations Tempo (OPTEMPO) of the Reserve component resulted in the deployment of every RC Medical Detachment (Veterinary Service). The ability of RC veterinary medical professionals to sustain this tempo is problematic.

- Recommendation: Develop blended AC/RC units that are able to sustain high OPTEMPO over long periods of time.

7 - Current RC Officer Basic Course for Medical Corps, Dental Corps, and Veterinary Corps officers is two weeks long. This is inadequate to provide trained professionals to the field.

- Recommendation: Create web-based and exportable training packages to train RC VS personnel.

8 - Currently, funding for critical GWOT/homeland security training is fragmented and unprogrammed.

- Recommendation: Provide programmatic, objective resources to provide agile, flexible, just-in-time training to meet current operational requirements.

9 - There is an increasing role of the National Guard in homeland security and CBRN events including agroterrorism, but Veterinary staff officer billets were deleted during the Cold War era.

- Recommendation: Restore the Veterinary Corps staff officer positions at each state National Guard headquarters to support homeland security planning and response activities.

Conclusion

The U.S. Army Veterinary Corps and DOD Veterinary Service Activity play crucial roles in the full spectrum of the GWOT and homeland security by supporting the warfighter and the Nation through food safety, veterinary health services, and Research and Development. They serve the entire DOD, from operational Combat Service Support to providing Force Health Protection, as an integral component of the Army Medical Department.

About the author:

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Lessons Learned in Response and Recovery: The U.S. Army Corps of Engineers at the World Trade Center

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Introduction

The U.S. Army Corps of Engineers (USACE, or simply "the Corps") has provided engineering services of immense value to the nation for over two centuries. Not only does USACE directly support the warfighting mission of the U.S. Army, it also oversees extensive water resources as well as other civil works programs and provides design, engineering, and construction support to other federal agencies and customers. One of its most valuable but often least-understood missions is emergency response. Both during and in the aftermath of the 11 September 2001, terrorist attacks on the World Trade Center complex in New York City, USACE played a key role in mitigating the impacts of this tragic event.

Role in Federal Disaster Response Missions

Throughout the Nation's history, citizens have relied on the Army to respond to their needs in times of trouble. Beginning in the 19th Century, the Corps gained a domestic assignment to respond to natural disasters. These included the periodic massive flooding along the Mississippi River as well as single low-probability, high-consequence events such as the 1906 San Francisco earthquake. Enactment in 1950 of a federal disaster relief program brought the Corps heavy responsibilities but also demonstrated the appropriateness of tasking this mission to this military engineer organization.

In a typical year, the Corps of Engineers responds to more than thirty presidential disaster declarations, plus numerous state and local emergencies. Responses usually involve cooperation with other military elements and federal agencies in support of state and local efforts. The Corps of Engineers currently conducts its emergency response activities under two basic authorities for civil disasters: the Flood Control and Coastal Emergency Act (Public Law 84-99, as amended) which applies principally to flooding emergencies, and the Stafford Disaster and Emergency Assistance Act (Public Law 93-288, as amended). Under the Stafford Act, the Army has the lead responsibility for public works and engineering missions, and USACE provides engineering and construction support.

In 1979, the U.S. government established the Federal Emergency Management Agency (FEMA, an independent agency until it came under the Department of Homeland Security in March 2003) to oversee the federal response to disasters. Roughly thirty federal agencies are part of the Federal Response Plan (FRP), promulgated in 1992 and linked to America's homeland security under what will eventually become, in final form in late 2004, the superceding National Response Plan (NRP), integrating each and every federal plan into a single all-discipline, all-hazard comprehensive framework.

There are a dozen emergency support functions (ESF) under the FRP. The military is involved in several of these functions, but the Department of Defense (DOD), with the Secretary of the Army as its executive agent acting with the full authority of the Secretary of Defense, takes the role as lead federal agency in ESF-3, Public Works and Engineering. The Director of Military Support (DOMS) is the DOD office for coordinating military support to civilian authorities, and especially with FEMA, on behalf of the Secretary of the Army. In the case of terrorist incidents, the Secretary of Defense must personally approve FEMA's requests for assistance.

USACE Organizational Response Process

As a result of its response mission, the Corps developed a doctrine known as "Readiness 2000" (R2K), which became the organization-wide response to crisis planning and management. In accordance with the emergency response roles, planning response teams (PRT) were developed and trained as experts in critical skill areas that USACE would provide during a response. HQ (Headquarters) USACE would review, revise, and submit comments on the FRP and its relevant annex annually.

When a disaster was of such magnitude as to trigger a federal response, USACE would become involved through a direct sequence of administrative actions. The FEMA National Emergency Coordination Center would

notify the Army operations center (AOC) of an emergency situation. The AOC would then immediately notify the catastrophic disaster response group (CDRG) members from USACE and DOMS. AOC and Headquarters (HQ) USACE emergency operations center (known as the UOC) would exchange telephonic notifications to ensure that each is aware of FRP activation. DOD/DOMS would provide a defense coordinating officer (DCO) to serve as the single point of contact to the Federal coordinating officer (FCO) and ESF representatives for all requests for military assistance. HQ USACE would then send emergency support team (EST) representatives to FEMA headquarters and would designate the lead USACE component.

As each USACE division is pre-aligned with a FEMA region for disaster response purposes, the affected FEMA region would request support from the pre-designated USACE division commander. A USACE division will appoint an overall mission coordinator for all ESF #3 response and recovery activities at the regional operations center (ROC) and disaster field office (DFO) as appropriate. The division will establish a forward command to act in concert with FEMA's emergency response team (ERT) and both will execute the FEMA ROC's missions. The division forward would oversee the Corps' field command known as the Emergency Response and Recovery Office (ERRO).

The individual districts of each USACE division would also respond by initiating a number of actions. These would include: assuming tactical control of operations; designating personnel to staff the various FRP-mandated operations centers and support teams; identifying facilities for USACE field offices; notifying support agencies' regional offices of ESF #3 activation; gathering essential elements of information and reports to the ROC, HQUSACE, DFO, and UOC; identifying requirements for remote sensing and imagery; working with state and local governments to maximize the use of available regional assets; and finding resources required from outside the region. The district in which the disaster occurs is usually declared a "victim district" and transfers command and control to other districts brought in to oversee the response.

USACE capabilities

As the operating agent for ESF #3 planning, preparedness, response, and recovery, USACE has developed a variety of immediate emergency response actions. These include command and control functions, damage assessment, urban search and rescue (USAR), provision of emergency power, dredging, and water and ice supply. The range of other assistance offered in the aftermath of an emergency includes, but is not limited to, structural stabilization and/or demolition, salvage operations, debris removal, temporary housing, skimmers, pollutant disposal, emergency accessibility, construction inspection, roofing, and remote sensing.

Much of meeting ESF#3 requirements involve contractual work and related metrics including the preparation of statements of work, cost estimates, and estimated completion dates for mission assignments, as well a tracking and executing these taskings. Contracts for needed materials are in place at the national (especially for ice and water) and local levels.

The PRT formed under R2K are teams of deployable experts. The principal materiel resource for USACE's disaster responses is the Deployable Tactical Operations System (DTOS). This interoperable command and control package consists of six rapid response vehicles (RRV), three deployable tactical operations centers (DTOC), and two containerized tactical operations centers (CTOC); all containing various and appropriate amounts of communications gear aboard, and located at each division headquarters. There also is one communications "fly-away" kit in each district headquarters. A principle mechanism for data linkage is maintained over the Internet. It is known as ENGLink, a software package into which data can be entered and then used for generating reports, maps, and so on at various command levels.

Victim District

This process went into play in New York City during the fall of 2001. Given both the immense scope of that tragic day, as well as the fact that a large number of New York District personnel worked in disparate locations outside of lower Manhattan, accountability became the immediate issue. The now-downed World Trade Center (WTC) buildings had housed important communications links for the area and, without these, voice and data communications were lost. Some personal cellular phones of particular branded networks did work, however, as these providers were relatively less affected by the loss of the WTC communications links.

Due to its location and need for hasty evacuation from its location mere blocks from the WTC complex, the New York District was declared a "victim district," which is a designation for a major support command that is impacted by a disaster. The District office at 26 Federal Plaza was evacuated, with the entire action taking approximately twenty minutes. At 3:00 p.m. the District command then relocated to the Operations Division Field Office at the marine terminal at Caven Point, New Jersey.

It took until 16 September to account for 100 percent of the Districts employees, and until 26 September for the District to begin the process of reoccupying its former offices. Prior to that point, District members retrieved tens of thousands of equipment and files–all at some personal health risk, given that no professional moving labor was available for this task.

The District was a "victim" but continuously remained active. Colonel John O'Dowd, then New York District Commander, relocated across the harbor to the Corps facility at Caven Point, New Jersey, and established a strong command presence on-scene. He also provided key leadership and acted as focal point to rally support for Corps recovery operations in New York City. Of no lesser significance, he established an alternate emergency operations center (EOC), which undertook the upward reporting for USACE. Colonel O'Dowd, who was subsequently put in charge of Corps operations in Afghanistan, is emblematic of the special capabilities that the military leadership of this basically civilian agency can impart in times of crisis.

Dunkirk Evacuation

The Corps has a large fleet of boats (known within the organization as "floating plants") that helped maintain navigability through the New York/New Jersey Harbor and along the Hudson River. Most of these ship captains were in a Coast Guard safety training class directly across the harbor when the planes struck. They immediately banded together on the spot and assembled an armada that left Caven Point for lower Manhattan.

These USACE afloat facilities proceeded to take part in what was colloquially known as the "Dunkirk Evacuation," so named after the British Army's evacuation from northern Europe in 1940. A flotilla of Corps vessels led by the M/Vs Hayward and Hocking (eventually including the M/Vs Hatton, Hudson, Gelberman, Driftmaster, and New York Survey Boat #1) acted as a ferry service from Battery Park to Ellis Island, or disparate points in New Jersey, for more than 3,000 civilians fleeing the World Trade Center's collapse. Three marinas were set up on a triage basis to handle these evacuees at Caven Point.

These vessels were later joined by the M/Vs Wampanoag, Cataumet, and Colvin for other duty. On return trips back to Manhattan–and lasting for a week thereafter–the flotilla brought supplies and several hundred emergency personnel from staging areas across the Hudson. Included in this transport convoy were 16,000 gallons of fuel and water (with the crews pumping or filling by hand the fuels and water needed by the response vehicles at the scene), as well as respirators and other supplies including even two forklifts, brought to emergency responders in Lower Manhattan. The survey boat Hatton also ferried respirators from Pier 40 to the North Cove that were used by searchers at Ground Zero. To further this end, Corps employees established an initial staging area at North Cove for receipt of supplies into the disaster area. The actions of these personnel–the Army Engineers afloat–extended significantly the time that emergency personnel could remain on-scene.

Disaster response support

At the WTC site, USACE received fourteen mission assignments from FEMA. Most were closed within a month, although resource activation, transport support, debris monitoring, and landfill management remained ongoing well into the recovery period. USACE drew upon its PRT for help, and also activated its contingency response unit for operations and force protection. Three hundred Corps military and civilian employees from all of its divisions, the headquarters, and laboratories eventually were marshaled and deployed.

Support to USACE response and recovery activities in New York came from all over the country. An advance emergency response team and Baltimore District's debris planning and response team set up at FEMA Region II's ROC at Edison, New Jersey on 12 September. Emergency response teams located at FEMA Region II moved to the disaster field office at Pier 90. One DTOS arrived and also was in full operation on 14 September, with another coming in three days later. Two DTOC and two RRV were sent to Manhattan to facilitate command and control. DTOC

1 and 2 were stationed at Ground Zero, the RRV were sent to Brooklyn as well as to Manhattan, and an ERRO along with the Division Forward command were established at Pier 90. Since New York City's EOC had been destroyed in the collapse, the two DTOS were used by the New York City Fire Department until October 7. The logistics operations support center, first set up at Camp Kilmer, fully relocated to Pier 90 by 16 September.

The Corps also assisted in the recovery effort by providing its unique technological capabilities. USACE's Geographic Information Systems (GIS) mapping and analysis of the disaster site was key to planning and security. The Corps' GIS tools proved invaluable given that the landscape of the World Trade Center was no longer recognizable even to those most familiar with it. Products generated by personnel from the districts in Omaha, Rock Island, and elsewhere supplemented the FEMA and New York City GIS mapping and analysis capabilities. Topographic and bathymetric surveys also were undertaken. These products gave an accurate estimate of the amount of debris, identified dangerous spots (known as "hot zones") at Ground Zero, and also assisted in determining the best routes for debris removal.

Structural engineering experts and debris specialists also assessed damage, determined accessibility, and supported debris management. They especially monitored debris movement while rescuers traversed the sixty-foot high mounds of rubble that now comprised the area in which had stood the World Trade Center. Complex debris quantity estimations and on-site inspection provided an overall scope of damage. Structural floor plans were used to estimate the quantities of steel and concrete; when combined and extrapolated with the floor plan for an individual floor of one of the towers, plus GIS and other data for the rest of the World Trade Center, this gave the estimate a great degree of accuracy.

The resulting calculations were that 1.058 million tons total had crashed down, including almost 310,000 tons of steel and over 353,000 tons of concrete. The glass, partitions, and other office-related debris alone was estimated to be 40 percent of the total. Tonnage distribution above plaza level: 45.1 percent miscellaneous materials, 28.7 percent concrete; 26.2 percent steel; below plaza level: 40.4 percent miscellaneous; 36.4 percent concrete; 23.2 percent steel. The Port Authority eventually provided information on ancillary debris that raised this amount to 1.2 million; in the end, debris from other buildings damaged plus rescue vehicles and private automobiles left in the area amounted to 1.6 million tons.

The damage at the World Trade Center was not only extensive; it continued to multiply. Buildings One, Two, Three, and Seven World Trade Center were destroyed, as was the Marriott Hotel; Four, Five, and Six were collapsing and pulled down, as was One Liberty Plaza and St. Nicholas's Church. Corps USAR teams searched through these crumbling buildings as well as the rest of the rubble of the WTC complex (only briefly at first) to look for survivors, and then principally to determine operational safety for rescuers and areas that were safe to launch recovery efforts.

USAR teams and structural specialists also helped the City's Department of Design and Construction determine how to stabilize the below-grade slurry wall around Ground Zero's "Bathtub." This was done by dewatering the surrounding ground and re-establishing tiebacks; these actions allowed recovery operations to continue at the site. Their recommendation to avoid placing equipment on or over concrete slabs was incorporated, as was their advice on setting cranes and exactly what could be extracted by these machines. Furthermore, they identified areas of dangerous road settlement so that heavy equipment could avoid these hazards. They also evaluated and suggested safe procedures for the City of New York Police Department (NYPD) as it searched for human remains.

The 249th Engineer Battalion (Prime Power), with a capability to restore and generate power, is the only Army unit directly under the command of the Chief of Engineers. Initially ten personnel (soon augmented by another 21 troops) deployed to assist the electrical power supplier Consolidated Edison (ConEd). With previous training under combat conditions, the Prime Power troops helped ConEd restore power to lower Manhattan within six days, including the two generators at Water Street that allowed the New York Mercantile Exchange and NASDAQ's hub to resume activity. As a result, President George Bush declared that Wall Street was "back in business" on 17 September. In total, the 249th deployed 31 personnel to New York City; sixteen from Fort Belvoir, Virignia, and fifteen from Fort Bragg, North Carolina. By 19 September, these soldiers had completed their technical assistance mission

to ConEd by installing 56 city-supplied 1,500-kilowatt generators in support of emergency electrical power requirements.

North Atlantic Division takes charge

Like its subordinate district, the North Atlantic Division headquarters was also declared a "victim." Yet it not only kept functioning, but also clearly remained in charge of the response effort. One stark example is the action of its Commander, Brigadier General Stephen Rhoades. On 11 September, General Rhoades immediately returned from travel to a conference in New Jersey, took a Corps vessel from Caven Point, and proceeded to make a damage assessment to the USACE Commander from Lower Manhattan. In this manner, he had become the first military presence on-scene at Ground Zero.

Before midnight on 11 September, General Rhoades had directed New England District to become Division Forward and collocate with FEMA in New York City. This command was staffed by personnel principally from the New England and Philadelphia Districts, with extensive augmentation from all over USACE. New England District's Commander, Colonel Brian Osterndorf, also received the mission to form an ERRO for Corps support to the emergency response and recovery effort on Manhattan. He first deployed to Edison, New Jersey. But, with the immediate goal to re-establish a USACE presence in which the New York District could reconstitute, he soon relocated the Division Forward support element with the DFO at Pier 90 on 16 September. Within days, over 150 Corps employees were at the scene. As soon as it could be effected, the functions of this command eventually were transferred to the New York District EOC.

Based upon a 1962 plan, one that principally envisioned responding to the consequences of a Soviet nuclear attack, FEMA established its EOC initially at Edison, New Jersey, which was somewhat removed from the disaster area. The Philadelphia District set up support centers for in-processing at Fort Mifflin, Pennsylvania, and Camp Kilmer, New Jersey, also both somewhat removed. Eventually, the DFO at Pier 90 undertook key logistical support, and wound up in-processing most Corps employees involved with the response. As Corps supplies were limited, the staff had to scramble to obtain incoming personnel respirators, hard hats, steel-toed shoes, and goggles. Finding accommodations was an area in which DFO especially saved USACE and taxpayers some money by personally negotiating significantly reduced rates in comparison to what other agencies were being charged.

The logistics staff also worked closely with the city's emergency operations center located at Pier 92. FEMA and the State Emergency Management Office had set up its own DFO at Pier 94 (125 Worth Street). The Division's EOC, renovated just prior to attacks, stood up in record time and was staffed 24/7 in the first weeks, with 10-15 people per shift pulled from other Division offices. This EOC coordinated the deployment of RRV and DTOC, which were used by key agencies in the recovery.

Fortuitously for the Corps, the Army post at Fort Hamilton in Brooklyn had escaped being earmarked during the base closure rounds of the 1990s. It was to serve as an excellent staging area for a wide array of military support to the recovery effort. Indeed, the Division's resource management and accounting personnel completed year-end close out on time, in spite of the 9/11 events and the lack of access to records at 26 Federal Plaza, all amidst the tight conditions at Ft. Hamilton. But operations were in close quarters as both District and Division staffs merged and were blended with personnel brought in from outside the area. The Division accommodated District staff in its office spaces by relocating many of these displaced workers at Fort Hamilton, although quarters were cramped with as many as four people using a single workspace. Hallways became offices and business meetings occurred at outdoor picnic tables. This temporary merge was crucial in allowing these USACE components to meet programmatic requirements.

The New England District team acted as the primary liaison with FEMA and other federal agencies from Pier 90. It was also the USACE financial point of contact for FEMA-assigned missions. Public affairs was consolidated into one-team with New England's public affairs officer as team leader, and established a position with the joint information center at the EOC. Headquarters, New England District, and New York District public affairs officers, most with extensive prior disaster response experience in their USACE careers, also worked closely to manage public affairs for the emergency operations. Having done its job so well, by November support to FEMA had transitioned from New England District's personnel to a New York District project delivery team.

Emergency Dredging

Another traditional Corps activity proved especially useful. On 12 September, the Corps' New York District harbor project manager, Joseph Seebode, began the process of securing emergency dredging permits so that Corps dredges could begin operation. Within a week's time, the Corps was able to issue permits for dredging, which initially occurred in the Hudson River.

USACE vessels dredged two piers near the disaster site so that supplies and large equipment could be brought into lower Manhattan. Pier 25 was area-dredged, as it was the only accessible point in proximity to the former building complex that large trucks could enter, offload, and turn around. Pier 25 turned out to be a depository area for old pilings and "clamshell" diggers were required to remove these, and even an old car, in addition to sediment in order to create a deep enough draft. Eventually 125,000 cubic yards of material were removed from Pier 25.

Another location selected was at the southern part of Manhattan for dredging. At Pier 6, the old Port Authority heliport, more than 55,000 cubic yards of material was removed so that large barges could enter the area. The emergency dredging at Pier 6 was completed by 3 October. This dredging allowed transportation by barge of debris directly from lower Manhattan, thus replacing trucks that had difficulty navigating uptown on the island to piers that could accommodate them.

The barges brought in were also used to move out large debris. Of note, the Corps also removed the remnants of a very long but unused World War II-era pier off of Staten Island that collapsed soon after the 9/11 attacks. The Corps also dredged to clear the way for debris removal to Staten Island by way of barges. In a related manner, the Corps worked with the City of New York to restart ferry service to an existing site at Pier 11, and to new sites at Piers 8 and 79.

Fresh Kills Landfill

The principal role that the Corps played at the World Trade Center was in tackling the problem of how to clean-up and process the tangled mess that once was the massive office complex; 310 stories of building, with fifteen million square feet of office space, had collapsed into a twelve-block space, sixty feet high, in the center of an important business district in lower Manhattan. USACE personnel figured out how to move the material, sort through it, and dispose of it–all while preserving evidence and human remains.

At the building complex, what eventually would be over a thousand workers, using more than five hundred trucks and pieces of heavy equipment, toiled to remove debris from September 2001 to June 2002. The Corps was immediately key to this process as HQ USACE sent five debris PRT to assist. PRT members would begin planning the operations and quickly handed off to New England District personnel, who in turn deferred to New York District's expertise. New England District provided financial support and Baltimore District provided contract support.

It was determined early on that the most optimal site for debris removal would be the just-closed Fresh Kills Landfill on Staten Island, New Jersey. At first, debris was trucked to Fresh Kills over the Verrazano Narrows Bridge and other routes. Trucks making the twenty-mile journey were readied for transit at one-stop stations set up by the Corps. For reasons of safety and due to the sheer amount of material that had to be moved, it was soon decided that the debris should be barged out of Manhattan. The Corps established the ensuing process for debris transfer from trucks to barges at Pier 6 on the East River and Pier 25 on the Hudson River.

Corps oversight at the landfill officially began on 4 October 2001. The City Office of Emergency Management had, through the state, requested federal support. FEMA had authorized an expenditure of $125 million for removal operations and tasked the Corps with the debris recovery mission. USACE personnel from the New York District arrived and joined the New York Police Department (NYPD), the Federal Bureau of Investigation (FBI), the New Jersey National Guard, and eventually two-dozen other agencies and 1,200 workers on "top of the hill." Since an important function of the landfill was to serve as a venue for the sorting of debris to look for evidence and remains, it was run by the NYPD as a crime scene, with the FBI overseeing the federal investigative areas and the City's Department of Sanitation carrying out operations.

USACE provided site management and administration, equipment support, inventory, health and safety planning, and regulatory enforcement. Through its primary contractor, Phillips & Jordan (P&J), the Corps also

provided quality assurance oversight, air quality monitoring, and all logistics support. USACE personnel involved with the monitoring program ensured that toxin levels were posted publicly everyday. The Corps also constructed or improved physical structures on the hill, especially the decontamination, working, feeding, and rest structures–and ran them–for relief workers and government employees at fresh Kills. One notable exception was that the Salvation Army ran the mess hall. The Corps additionally built large temporary warehouses to assist proper inventory control of donated and procured government items. Of no small importance was that USACE provided leadership to the city's project team that stood up this process, and led the operations meeting held everyday at 10:00 a.m.

At Fresh Kills, the Corps' principal task was debris recovery and disposal. USACE was in charge of the first-of-its kind operation, as never before had there been any attempt to recover human remains, personal artifacts, and crime scene evidence on such an immense scale. The process as devised first dealt with segregating and then disposing of the structural steel. The steel was separated into piles based upon its facility of origin; in particular the steel that came from buildings housing federal agencies was closely inspected. Eventually, the steel was segregated and inspected at the WTC site and trans-shipped to the recycle plant in New Jersey, thereby bypassing the landfill; the Corps quickly facilitated the removal of all that remained at Fresh Kills. USACE also oversaw a vehicle disposal system whereby automobiles were pried open with the "jaws of life" extractors and personal items removed and catalogued, after which the cars were scrapped.

USACE's ability to contract out for disaster relief played a key role in landfill operations. The Corps utilized its regional advance contract for disaster operations with P&J that allowed them to come in almost immediately. P&J designed a new process for the separation of debris by size and volume using shakers and screens. First, large objects were separated out before further processing. Then screens and conveyors segregated the material and took it to staffed "picking stations" for the removal of personal and evidentiary items of smaller sizes. The processing lines were Corps-built conveyors with shelters built around them for protection from weather. No contractors or personnel other than city, state, and federal detectives comprised the multiple inspection crews that staffed the inspection lines. At least six agents would be along each conveyor belt and power screen, and about a dozen would cover the inspection fields laid out in dimensions of 75 by 100 feet. They would work in 12-hour shifts in full protection suits that would take nearly an hour to put on and take off.

The peak for this 24-hour processing operation was averaging 70,000 tons per week. Debris removal occurred at 10,000 tons per day and reached over 1.6 million tons. FEMA had authorized expenditure of $125 million for debris removal, but due to efficiencies in the operation, actual costs came out at least 25 percent lower than expected.

Infrastructure protection

In the aftermath of the attacks, the Corps helped to form The Infrastructure Security Partnership (TISP), an organization that brings together forty government and industry leaders to develop integrated solutions to improving antiterrorism measures and ensuring that security concerns are incorporated into the design and construction processes. TISP included non-governmental professional associations so as to ensure that engineering, design, and construction methods will be widely disseminated and applied. It has been an effective mechanism for improving and promoting antiterrorist and protection design methodologies and techniques.

In addition, USACE oversaw the implementation of the Risk Assessment Methodology for Dams (RAM-D), a systematic way of evaluating security at the nation's 75,000 dams, and recommending improvements based upon a cost-benefit ratio. Further, the Corps completed an extensive assessment inventory of critical projects in each division. Following the attacks, the Corps' Engineering Research and Development Center utilized physics-based modeling to develop technologies for incorporation into protective guidelines for new structures, or for retrofitting older buildings against possible terrorist strikes.

Conclusion

Due to the efforts of first responders, 25,000 people emerged safely from what had been the World Trade Center towers; moreover, a total of 55,000 people were removed from peril in the impacted vicinity. The Corps played a part in this rescue and proceeded to be a major player in the lower-profile but equally impressive effort to remove the scars that the terrorists wrought. The

Corps' immediate emergency response to facilitate evacuation and rescue, and the missions it performed for FEMA in the areas of structural assessment, power restoration, dredging, and debris removal, were unique capabilities of the organization–and, in all actuality, actions in which USACE has engaged in during most of its institutional history.

The U.S. Army Corps of Engineers has been the nation's surveyor, transportation artery and waterways constructor; the builder of its federal offices; the engineer for its military bases; and a warfighting component. The skills it has acquired from its historical responsibilities have made USACE a dynamic response agency with a broad set of missions and capabilities. The organizational strengths of USACE are derived from its military character, which also makes it effective in its emergency response role. A flexible organizational structure, a continuous assumption of new missions, innovative personnel, and an ability to respond to incidents of monumental scale were hallmarks of the Corps' response to 9/11. While the United States stands alone among world nations in having its Army provide such an extensive degree of public works functions, the nation can be grateful that this historical anomaly not only existed, but moreover that it exceeded performance expectations in response to the unfathomable destruction wrought upon the World Trade Center.

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Interagency response commences at ground zero: ATF, FBI, and USACE along with NY city services

USACE portable emergency operations center deployed to ground zero

The National Guard and Homeland Defense: Historic Mission, New Threat

LTC (ret.) Grant Alan Knight
National Guard Bureau

Introduction

By the end of 2004, almost 94,000 members of the Army National Guard, 27 percent of the force, were on active duty; of that total, more than 37,000 were serving in Iraq and Afghanistan and Iraq. This is the Guard's largest mobilization since the Korean War. But this fulfillment of one of the Guard's main missions, that of a combat reserve force for the Army and the Air Force, should not obscure the National Guard's leading role in its other main mission: homeland defense.

In the wake of the terrorist actions of 11 September 2001, personnel of the Army National Guard (ARNG) and Air National Guard (ANG) are playing an ever-increasing role in homeland defense. Simply stated, homeland defense is the protection of U.S. territory, the domestic population, and our critical infrastructure against military attacks originating from outside the United States. In many cases, the Guard's homeland defense role is one that, legally, the active components and other reserve components cannot play. The Guard's dual state/federal status, enshrined in the U.S. Constitution and strengthened by a century of subsequent legislation, gives it a unique flexibility – a fact that has not gone unnoticed by Secretary of Defense Donald Rumsfeld.

Unique roles in homeland protection

Homeland security is the effort to protect the United States from internal terrorist attack. While our national security strategy identifies homeland defense as the foremost mission for all of the U.S. military, homeland security remains primarily a law enforcement challenge for civil authorities. The Guard's unique ability to undertake a homeland defense mission is in part due to limitations on domestic use of a federal military force that is constrained by law (particularly the Posse Comitatus Act of 1878) in the role it can play. The Guard's dual state/federal status, enshrined in the U.S. Constitution and strengthened by a century of subsequent legislation, gives it a unique flexibility not possessed by the remainder of the military that allows it to aid civil authorities in ensuring our homeland security – a fact that has not gone unnoticed by Secretary of Defense Donald Rumsfeld.

Why is the dual, state/federal status of the National Guard so especially advantageous in the area of homeland defense? Simply put, it is because National Guard members can work in three distinct legal statuses.

In the first duty status, state active duty, Guard members are paid with state funds (although in some cases the states can be reimbursed by the Federal government) and remain under the control of the governor. At the opposite end of the spectrum is Title 10 active duty, in which the National Guard and other Reserve Components are ordered to active duty by the president or congress under the provision of Title 10, U.S. Code. Between state active duty and the full mobilization of Title 10 is another status under which Guard personnel can serve: Title 32 active duty. Under the authority of Title 32, U.S. Code, Guard members are paid with federal funds, but remain under the command of the governors.

Both state active duty and Title 32 provide the governors and the Adjutants General of the states and territories with maximum flexibility, avoiding delays particularly affecting the ARNG and associated with the complex full mobilization process of Title 10. Title 32 is the best means for providing immediate support during emergencies. Through use of Title 32 authority, tens of thousands of Army and Air Guard personnel were ordered to duty at the nation's airports after the September 2001 attacks, with literally thousands reporting within days of the conference call between President Bush and several governors who launched the mission.

Historic mission to defend the homeland

Of course, the National Guard has been involved in homeland defense since its creation as the militia of the thirteen British North American colonies. The New England militia protected against the incursions of the French and their Indian allies, and during the Revolution against the British themselves, starting with the engagements at Lexington and Concord in 1775. More than 400,000 militiamen were called up to defend the Atlantic coastline and the Great Lakes region during the War of 1812. At the end of the 19th century, American victory in the Spanish-American War

expanded the coastal defense mission of the U.S. Army, protecting Pacific territories such as the Philippine Islands, taken from Spain. This was to have an unexpected impact upon the National Guard.

By 1907 the Army recognized it was inadequately manned to address an expanded coastal defense mission and, following Congressional action, Army Guardsmen were authorized to serve in the coast artillery. The War Department directed that one-half of the fortifications in the U.S. be manned by Guardsmen, while the Regular Army assumed responsibility for the remainder, thus protecting both the homeland and the newly-acquired overseas possessions. By 1912, over 8,000 Guardsmen served in 126 coast artillery companies manning fortifications from coast to coast.

In its largest homeland defense mission before the terrorist attacks of 2001, the entire National Guard was federalized in 1916 and sent to the Southwestern U.S. to protect against Mexican incursions. Thousands of Guardsmen called to active duty in 1940 joined personnel of the Regular Army throughout the nation in protecting industrial facilities, transportation hubs, and utilities against possible German sabotage.

Following the end of the Korean War in July 1953, in an increasingly dangerous Cold War environment in which the U.S. homeland faced the threat of aerial attack by the Soviet Union, air defense of the continental United States became a critical priority of the national military strategy. Air defense was one Army mission for which the active component was not adequately resourced. By the end of 1955, over fifty ARNG batteries were deployed throughout the nation, with 105 antiaircraft units ultimately performing this 24/7 homeland defense mission.

The threat of attack by Soviet bombers was met by the Air National Guard. The ANG in 1953 assumed a limited homeland defense mission through participation in the air defense runway alert program. By 1961 the original limited test program had expanded into a permanent, round-the- clock program utilizing 25 ANG fighter squadrons. By September 1997 the ANG had totally assumed the responsibility of 1st Air Force, providing 100 percent of the Air Force's air defense interceptor force in the United States, a mission that began in 1991.

Homeland defense remained a key ARNG mission with the dawning of the missile age. The Nike-Ajax Missile, first fielded to the ARNG in 1957, and its replacement by the Nike-Hercules Missile in 1964, constituted the backbone of a ground-launched missile defense program. By 1961 there were 82 ARNG missile batteries sited in 15 states where they could provide coverage of major metropolitan areas. Almost one third of the personnel manning these batteries were fulltime technicians providing a 24/7 response capability. Eventually, ARNG personnel manned 48 of the 112 missile sites in the continental United States until the last unit was deactivated in 1974.

As Michael Doubler points out in his 2001 book *I Am The Guard*, the long-term demonstrated success of the ARNG in the missile defense of the United States created a number of important precedents for the Guard's role in future defense programs. Guardsmen established themselves as a readily accessible homeland defense asset, fully capable of participating in the first line of defense countering the nation's most dangerous threats. As such, Guardsmen shared federal responsibility with active forces for the execution of this key component of the nation's military strategy. Thus, when the attacks of September 2001 put both Army and Air National Guard units and personnel on state active duty, and both Title 10 and Title 32 Federal active duty were used, it was as part of a long tradition.

Transformation

In April 2003, H. Steven Blum, a major general in the Maryland National Guard, Commander of the 29th Infantry Division (Light), was nominated by the Secretary of Defense to take over as Chief of the National Guard Bureau (NGB). As part of Secretary Rumsfeld's transformation initiative, the mandate of the newly appointed Lieutenant General Blum was to transform the NGB. On 30 July 2003, Secretary Rumsfeld wrote officially to General Blum, asking him to "strengthen (the) statutory link with the Army and the Air Force and the states and territories," to "strive to adapt the NGB to better support the WOT [War on Terror], homeland defense and homeland security," and finally to "seek ways to strengthen NGB's relationship with the Joint Staff, USNORTHCOM, USPACOM and the OSD-Homeland Defense."

Central to carrying-out Secretary Rumsfeld's mandate is the authority given the Chief, NGB in Title 10 of the U.S. Code, which makes the Bureau the channel of communications between the Departments of the Army

and the Air Force, and the States and Territories. The National Guard Bureau does not "command" the Army or Air National Guard; the governors command the Guard when not in active Federal service. However, the Bureau's statutory responsibilities with regard to overseeing funding, qualifications of officers and units, training, and a host of other functions give it considerable de facto authority – authority that General Blum was determined to use to change the way both the Bureau and the Adjutants General in the states and territories did business.

Under General Blum's direction, NGB underwent an extensive reorganization to create a joint staff, a process that began on 1 July 2002 with initiation of a provisional reorganization, designed to lead to attainment of fully joint status in fiscal year 2005. Conversion to a joint structure, organized under a joint table of distribution (JTD), was undertaken to facilitate coordination with Department of Defense's Joint Staff and the staffs of the combatant commanders. The National Guard in the States and territories, heretofore usually divided into separate Army and Air sections under an Adjutant General (who can be from either Service), was also ordered to convert to Joint Staff Headquarters, with most states reorganizing their headquarters by 1 October 2004.

Information management

In support of the NGB's role as the channel of communication between the Departments of the Army and the Air Force in meeting the challenges of homeland defense, General Blum has emphasized the development of sophisticated and responsive information technology (IT) connectivity. While exercising no command and control functions over the states and territories, NGB has created a joint CONUS communications support environment (JCSSE) whose features facilitate situational awareness and information sharing with the combatant commanders. NGB, leveraging technology, has provided a bridge for civilian and intergovernmental agencies that exist at state and local levels, so that they can interface in a synergistic and coordinated fashion with Department of Defense (DOD) assets that may be requested.

Employment of up-to-date IT technology facilitates intrastate coordination, information sharing, and other collaborative tools provide users with a common operating picture and capabilities for coordination and control. General Blum has pointed out that this IT-based system is a huge enabler and asset for both DOD and the Department of Homeland Security (DHS) at the national level, and for the emergency management agencies and adjutants general at state and territory level.

Each state and territory now has a standing joint force headquarters with a robust IT capability in both the ARNG and ANG. In the area of information operations, the Guard is also developing a significant team-based capability. Major elements fielded include vulnerability assessment teams, field support teams, and computer emergency response teams which act as first responders in the event of attacks targeting information systems. These groups are capable of operating anywhere in the homeland defense, homeland security, or combat operations spectrum; and will be able to provide state and territorial governors, federal authorities, and the combatant commanders with a wide range of capabilities in a variety of tactical environments. In short, optimization of IT facilitates conduct of homeland defense, homeland security, and consequence management missions – in addition to enhancing the ability of the deployed ARNG and ANG to more effectively execute their assigned missions in the Global War on Terrorism.

Force structure for response missions

In assuming its expanded homeland defense responsibilities, the National Guard uses specific groups or subgroups of units to perform homeland defense missions. These units receive priority for manning, equipment, and training to ensure their readiness. While many types of units represent traditional tables of organization and equipment found in the force structure of the ARNG and ANG, others are either new or represent a reconfiguration of an organizational structure previously utilized.

Among the new types of units are the Civil Support Teams (CST) capable of providing an early response to nuclear, chemical, and biological attacks delivered by weapons of mass destruction (WMD). The Guard's initial CST were organized and fielded prior to the attacks of 11 September 2001, but their importance has grown in the wake of lessons learned in New York City.

New in 2004, and best known by its acronym – CERFP, has been the Chemical, Biological, Radiological, Nuclear, or High-Yield Explosive Enhanced Response Force

Package. A CERFP unit is tasked to support local, state, and federal agencies in responding to the aftermath of hostile efforts to penetrate the homeland defense umbrella. The capabilities of a CERFP include command, extraction, decontamination, and medical treatment. Ultimately, there will be twelve of these units throughout the nation, including one in Hawaii. An embodiment of the emphasis on jointness, CERFP personnel are drawn from both the Army National Guard and Air National Guard, in clear recognition of the fact that the multiple missions of such a team are best met by combining military occupational specialties found within the ARNG and ANG.

In yet another homeland defense initiative, the state and territorial joint force headquarters are developing quick reaction teams and larger entities known as quick reaction forces. While the concept may date back to the Minutemen of 1775, what is new is the joint manning of such teams with personnel from both of the Services and the diversity of relevant skills sought in team members. A team must be able to support land defense mission requirements rapidly, and provide site security and critical infrastructure protection in support of either state or federal requirements. A company-sized unit must be assembled within 4 hours and a battalion-sized follow-on element must be operational within 24 hours. These teams are being formed from the existing force structure and are modular in nature.

Additionally, Secretary Rumsfeld has made it clear that the homeland defense part of the military mission cannot be divorced from transformation of the force. A transformed Army and Air Force, to include the Army National Guard and the Air National Guard, is essential in pursuing a proactive and robust homeland defense, and in providing operational forces to augment the Army and Air Force.

Thus, the National Guard is fully involved in the adjustment of the active-reserve force structure mix to create a total force that is constantly able to address operational commitments, both planned and unanticipated. The ARNG will see force structure changes impacting military police, chemical, information operations, military intelligence, and special operations career fields. On the ANG side, force structure rebalancing will impact security forces, information warfare intelligence, and changes necessary to address the employment and maintenance of unmanned aerial reconnaissance platforms.

Strategies for the homeland

The current strategy for homeland defense and civil support calls for a layered set of active defenses designed to intercept weapons of mass destruction as far away as possible from U.S. shores. Key elements in implementing this "defense in depth" strategy include use of information technology, sensors, maritime defense, and critical infrastructure protection. Reserve component units are assigned a key role in the strategy's implementation. Current DOD plans call for increased reliance on the National Guard and Reserves in air and missile defense, land defense, and maritime security.

The central role of assuring the air sovereignty of the nation has also become a permanent Air National Guard (ANG) mission. This vital homeland defense mission was transferred to the ANG in 2004 and involved the shifting of over $84 million from the Air Force operations and maintenance budget to the ANG. Executing the air sovereignty alert (ASA) mission involves the ANG manning 17 of 18 fulltime air defense sites, a doubling of the sites since 11 September 2001. The mission also involves having combat air patrols (CAP) in flight and on alert at air bases across the country.

While the mission of manning the sites and flying irregular CAP had involved the ANG since the attacks of 11 September, what is significant is recognition of the demonstrated performance that clearly played a major role in the Air Force's decision to reassign this mission and indeed to expand it, along with providing up-front funding rather than reimbursement. The funding mechanism has enabled the ANG to transition from a mobilized to a "steady state" force in meeting this mission. The sites will be continually manned with dedicated aircraft and personnel in order to maintain a "steady state" alert posture with fully equipped squadrons.

Defense in depth also incorporates protection from a ballistic missile attack as a key component of the national security strategy. The ARNG's homeland defense mission identifies it as the primary force provider in a state-of-the-art segment of the multi-layered ballistic missile defense system that has been under development for several years, the Ground-Based Midcourse Defense (GMD) System. In GMD, a ground-based interceptor missile is fired at a predicted location for incoming intercontinental ballistic missile (ICBM). At a predetermined point the interceptor

missile launches a "kill vehicle" which is maneuvered by ground radar and its own sensors to a collision with the incoming ICBM, destroying the invading missile before it is able to strike its target within the U.S. homeland.

The ARNG's responsibility for GMD, the cornerstone of the nation's ballistic missile defense system, was launched in 2002 at Fort Greely, Alaska. Construction of the 400-acre site included six missile silos and supporting structures. The initial interceptor missiles will be supplemented in 2005, followed by installation of several interceptor missiles at a second site, Vandenberg Air Force Base, California. These highly secure sites are manned with a mixture of ARNG air defense soldiers and military police. The overall architecture of U.S. missile defense will comprise a family of systems that will include shooters, sensors, battle management, and C4 (command, control, communications, and computer systems) elements of air and space-based systems, and will likely result in a further expansion of the ARNG missile defense mission.

Successful employment

A glimpse into what the nation's homeland security future may resemble can be gained from the "Group of 8" (G-8) economic summit meeting at Sea Island, Georgia in the summer of 2004. This was designated, along with such events as the Olympics, presidential inaugurations, and major sporting events such as the Super Bowl, as a "National Special Security Event" (NSSE). The National Guard has supported such events in the past, but at Sea Island, the Guard's unique state/federal status was employed in a new way.

At the request of the Governor of Georgia, and with President Bush's consent delegated to the Secretary of Defense, a Georgia National Guard brigadier general was placed in command of both 4,888 National Guard personnel in Title 32 status (ranging from an ANG communications unit to an ARNG air defense artillery battery), and 2,081 active component troops, including Navy, Marine Corps, Army, and Air Force personnel. BG William Nesbitt reported to his governor, as Commander in Chief of Georgia's military forces, under provisions of Title 32, U.S. Code, and to the Commander of U.S. Northern Command (NORTHCOM) under provisions of Title 10, U.S. Code. The summit meeting was held without incident, but some previous G-8 meetings occasioned major civil disturbances, and had it been necessary, the dual command status of the Sea lsland Joint Task Force would have allowed for easy integration of additional Title 10 Federal forces and National Guard Title 32 personnel as part of a coordinated military response to a disturbance or a terrorist act.

The success of employing a "dual-hatted" commander at the G-8 summit NSSE was quickly followed-up by similar arrangements later that same year for the Democratic National Convention in Boston and the Republican National Convention in New York City. In November 2004 the first "dual-hatted" command of a non-NSSE event took place when a Vermont National Guardsman was given both Title 10 and Title 32 command in Operation WINTER FREEZE, a security mission along the Canadian border. Clearly, the use of the National Guard in a Title 32 status for homeland security operations is a growing trend that will not be reversed soon.

Conclusion

As a dynamic part of the total force functioning in a joint environment, the National Guard continues to play a key and increasing role in homeland defense. The homeland defense mission is an integral part of the Guard's long history, and in the near future at least, it is one that will continue to grow and evolve, as the nation's military transforms to fight new and different threats. Optimizing its human and technological assets, the Army National Guard and Air National Guard will continue to work in concert with the active components; the other reserve components; the combatant commanders; and the federal, state, and local agencies.

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The Role of State Defense Forces in Homeland Security

COL (ret.) John R. Brinkerhoff

Introduction

State defense forces can play an important role in homeland security by providing additional armed, trained, disciplined, and organized military troops to augment the police, National Guard, and federal military troops available for domestic law enforcement operations. State defense forces are today's version of the traditional local militia—citizen patriots who volunteer to defend their homes and hearths. They are strictly state troops to serve the respective governors during times of emergency. The National Guard originated as state militias, but today is a federal force–funded by federal dollars; equipped with federal weapons, aircraft, and vehicles; and organized and trained to federal standards, in order to provide units to the Army and Air Force respectively in time of need. When not being used by the federal government, National Guard units are available to the governors as state military forces, but when the federal government needs the National Guard, its units and personnel are ordered to federal active duty and used under the direction of the President. This is the situation now for operations in the Global War on Terrorism, and this is the situation that will be the norm for many years to come. Department of Defense (DOD) policy is to try to make one-half of each state's National Guard available to the governors over the long-term.

State defense forces can provide governors additional troops to make up for the absence of the other half of their National Guard units. Among the various states, state defense forces are known by other names, including National Guard reserve, state guard, home guard, and state military forces. The generic term "state defense forces" will be used in this article, and the term "state" also is inclusive of the District of Columbia and U.S. territories.

State defense forces in the Twentieth Century

State defense forces served the nation well during four major wars of the Twentieth Century. Many governors established state defense forces when their National Guards were placed on federal active duty for World War I, World War II, and the Korean War. They were also formed during the Cold War in anticipation of the mobilization of the National Guard for a major conventional war in Europe. During these wars, Governors' responsibilities for disaster response and civil security did not end, and threats such as sabotage, enemy raids, and domestic disorders were more important than in peacetime.

For these wars, the Congress enacted laws enabling the governors to establish and maintain state defense forces. The Constitution does not provide for state defense forces. Article I, Section 10 of the Constitution says "No state shall, without the consent of the Congress, …keep troops, or ships of war in time of peace…" During the preparedness period just prior to World War I, Congress for the first time consented to having state defense forces in the event the National Guard was federalized. Section 61 of the National Defense Act of 1916 says: "No state shall maintain troops in time of peace other than as authorized in accordance with the organization prescribed in this Act." Section 79 of the Act, however, says that when the National Guard is federalized, "there shall be immediately organized" reserve battalions of infantry or cavalry to constitute the fourth battalion of each regiment ordered to active duty.

When the National Guard was federalized in 1916 and 1917 for World War I, several governors were reluctant to allow them to go because of the need for state troops to maintain civil security. As the war got underway, the Congress enacted on 14 June 1917 the Home Defense Act in response to the evident need for military forces to serve as state troops. The act established rules for federal support of the Home Guards and legitimatised what had already been done *de facto* by some states. The act authorized the Secretary of War, during the emergency, to "issue from time to time to the several States and Territories and the District of Columbia for the equipment of such home guards having the character of State police or constabulary as may be organized under the direction of the governors of the several states…" The law gave specific permission to provide "rifles and ammunition, cartridge belts, haversacks, canteens, in limited amounts as available supplies will permit." By December 1917, there were Home Guard units in 42 states, and these units had an aggregate strength of about 100,000 men. After the war, some of the Home Guards were transferred to the National Guard, but most of the units were dissolved.

The Home Guards were gone, but the need for organized military units to provide home defense was remembered when the Nation started preparing for World War II.

In World War II, state defense forces were organized in 46 states and Puerto Rico, with an aggregate strength of about 170,000 members. The National Defense Act of 1916 was modified in 1940 to provide a legal basis for these state troops and authorized support for them by the Secretary of War. State defense forces, as noted in an official 1981 study (T. N. Dupuy, Grace Hayes, Bradley Chase, and Thomas Tulenko, *U.S. Homeland Defense Forces Study*, Historical Evaluation and Research Organization, 1981), were intended to be "solely state forces, whose employment and composition were determined by the governors. Federal involvement was still intended to be indirect and limited. …Training objectives would be prescribed by state authorities."

These state defense forces were used for four principal missions during the war: peacetime duties of the National Guard, full-time guard duty in coastal areas during the year after the attack on Pearl Harbor, auxiliary combat troops in the event of hostile invasion (1942-1944), and after March 1944, internal security against espionage, sabotage, and domestic disorders. At the end of World War II, laws permitting formation of state defense forces were rescinded, and the program was terminated. The National Security Act of 1947 made no provision for state defense forces. After valuable worthwhile service in World War II, the state defense forces disappeared as the National Guard was reconstituted to serve as state troops.

When National Guard units from several states were called up for federal service in the Korean War, action was taken to form state defense forces in some of those states. In August 1950, the National Guard Association sponsored legislation to allow cadres of state military forces to be maintained at all times in addition to the National Guard. Despite Army objections to a provision of the bill that made the National Guard Bureau responsible for planning and coordinating the formation of these units, the bill was passed on 27 September 1950. Several states organized state military forces to replace mobilized National Guard units. The Army was preoccupied with avoiding defeat in Korea while creating an effective combat force in Germany and did little to support the internal security battalions that some of the states were forming. The result was that some states had these forces, and others did not. The program was not a great success, despite the initial enthusiasm and the need. When federal authority for state defense forces expired in September 1952, existing forces were disbanded and the state defense force program was lost to memory for thirty years.

In 1980 at the height of the Cold War, the state defense force program was revived to provide state troops for internal security in the event that the National Guard was mobilized. The war plan called for mobilization of the entire National Guard to augment the active forces in a global conventional war. In this event, the homeland would be left without adequate forces to preserve civil security in the event of sabotage, raids by Soviet Special Forces, or a nuclear attack. Few federal military personnel could be spared for domestic operations, and the National Guard would not be available to the governors. The states were encouraged to establish strong state defense forces. DOD agreed to provide from excess stocks the rifles, vehicles, uniforms, and radios the state defense forces would need for training and operations. Oversight of the revived state defense force program was assigned the National Guard Bureau. This program was a vital element of plans to protect the population against a massive Soviet nuclear attack and reconstitute society under civil rule in the aftermath of that attack. At the end of the Cold War in 1989, the state defense force program, along with many other programs designed to defend the homeland, was once again discarded.

State defense forces in the Global War on Terror

Today the United States is facing the threat of attacks by terrorists using weapons of mass destruction. A chemical attack, a major biological attack with an infectious disease microorganism, a radiation bomb, a nuclear explosion, or even multiple simultaneous conventional attacks will be catastrophic incidents. Managing them will require a large number of trained, organized, and disciplined personnel to recover victims, tend to the injured, bury the dead, take care of the survivors, prevent the spread of the danger, restore essential services, and provide a basis for recovery. There will be a need for firefighters (many of them volunteers), emergency medical personnel, doctors and nurses, emergency managers, engineers, and lots of citizen volunteers. In these kinds of emergencies, there will also be a need for large numbers of police officers and military troops who, in addition to being trained, organized, and disciplined, are also armed.

Armed police officers and military troops are needed to maintain law and order, protect critical infrastructure targets, control crowds, and provide protection for emergency personnel. While most Americans will pull together in the face of danger, some criminal elements will seek to take advantage of the panic and confusion of a catastrophic emergency to enrich themselves, promote their own agendas, or save their own lives at the expense of others. That is, violence is likely to accompany the devastation of the attack itself. This may be compounded by spontaneous movements of people attempting to escape danger. Armed, trained, organized, and disciplined personnel are needed to protect the citizenry from looters, criminal gangs, mobs, and themselves.

Police have the primary responsibility for maintaining law and order. They do this well in a daily basis and are generally able to manage major disasters and small attacks without extra help. For catastrophic emergencies, however, the police are too few in number to do it by themselves, and too bound to their own jurisdictions to reinforce other jurisdictions. There are about one million sworn police officers in the United States. A sworn police officer is authorized to arrest suspects and use deadly force if necessary to enforce the law. About 170,000 of these are employed by the federal government and during a catastrophic attack will be almost completely engaged in protecting their installations or working in their assigned field offices. About 770,000 officers are employed by local governments and will have their hands full in their localities during a widespread emergency. Only about 60,000 state police officers are available to reinforce local departments within their states in the event of a catastrophic attack. Police resources look large in the aggregate, but when divided by the fifty states, there are on the average only about 15,000 local officers and 1,200 state officers per state. Police departments are much larger in major metropolitan areas and much smaller than the average in rural areas, but in catastrophic attacks that affect large areas in several states simultaneously, there will not be enough police officers to do what has to be done. Since lateral reinforcement is not feasible when all adjacent areas are involved, the only source of augmentation for local departments will be from the states, which have the fewest resources.

When local and state police are unable to manage an emergency, the governors—who are responsible for maintaining law and order in their states—call on the National Guard to augment the police forces. In present circumstances, however, the National Guard alone may not have sufficient additional capability to meet the needs of the governors during catastrophic terrorist attacks. Although there are no authoritative estimates of police and troops required to deal with catastrophic emergencies, the demand for armed troops is likely to be greater than that experienced before because of the use of weapons of mass destruction. (This assertion is made on the basis of research to date. Current estimates of "requirements" are based on prior experience and do not include troops to maintain law and order during and after the attacks. The author welcomes rebuttal to this assertion.)

Furthermore, as noted earlier, not all of the National Guard units in a state will be available to the governors because many National Guard units will be on federal active duty. The DOD policy is to allow half of each state's National Guard to remain available for the governors. Even at full strength of 458,000 (350,000 in the Army National Guard and 108,000 in the Air National Guard) the National Guard provides only about 9,000 military troops per state on the average. Anticipating that half of the National Guard is on active duty, the states would fall short about 225,000 personnel from their full capabilities. That shortfall could be made up by having state defense forces in each state equal in strength to the unavailable National Guard troops–225,000 members in the aggregate nationally.

When local and state resources are inadequate and are overwhelmed by the demands of an emergency, the governors of the states may request the President to authorize the use of federal troops to maintain law and order, provide security, and support consequence management. It is quite likely that some federal troops will have to be used to manage catastrophic attacks and disasters. The number of federal troops needed could be reduced if state defense force troops were available for the governors. States less affected could get by without requesting federal troops. States more affected would need fewer federal troops. The existence of a large number of well-trained and armed state defense forces would reduce the resources that the Department of Defense would otherwise have to use for domestic emergencies.

The value of state defense forces

State defense forces are a low-cost, effective way to increase the Nation's capability to deal with catastrophic

terrorist attacks. States are authorized by Title 32 USC Section 109 to form such military forces. In order to be legitimate military forces, they must be formed in accordance with the constitutions and laws of the respective states, serve under the governors, and be commanded by the adjutants general of the states. The state defense forces are composed entirely of volunteers who train without pay and often perform their emergency duties without pay. Administrative costs are borne entirely by the states. Even in the absence of a catastrophic attack, they provide governors additional troops to manage lesser emergencies. During and after the attacks of 11 September 2001, the New York State Guard was pressed into service to provide security and assist in dealing with the attack on New York City. State defense force units in other states were also called on to augment security at key installations. State defense forces in several southeastern states served during the hurricane season of 2004. They provide extra personnel that governors can use in time of need without calling for federal troops.

Presently, twenty-one states and Puerto Rico have state defense force units, with an aggregate strength of 11,700 personnel. Several states have highly effective programs in which the volunteers receive weapons training and prepare for emergency duties, as well as providing support for their National Guard units. In these states, the commanders of the state defense forces are a major element of the state military departments and report to the adjutants general. State defense force personnel are authorized to wear Army uniforms with state insignia rather then the "US" denoting federal troops or federally recognized National Guard personnel.

The decision to have or not have a state defense force is up to the states. DOD has no part in funding the state defense forces, but it can provide advice and mentoring. The Chief, National Guard Bureau is the logical person to be responsible for suggesting tables of organization, accession and promotion standards, and training schedules for the state defense forces. The impetus and energy for each state defense force comes from the governors, legislators, and adjutants general of the states.

Conclusion

Facing the threat of terrorist attack, it makes good sense to have strong and effective state defense forces. States with these forces should be encouraged to increase the strength and capabilities of their existing units to be about half of their National Guard strengths. States without these forces should be encouraged to form them. This program takes advantage of the propensity of Americans to volunteer, and the availability of large numbers of retired and former service members who want to contribute to homeland security by putting their military training and experience to good use as members of the state defense forces. State defense forces can be a highly effective, yet low cost, addition to the nation's defenses. The lessons of the past and the exigencies of the present strongly suggest that it makes good sense to have strong and effective state defense forces.

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COL (ret.) Colonel John R. Brinkerhoff is an adjunct research staff member of the Institute for Defense Analyses whose work includes homeland defense. From 1981 to 1983, he was acting associate director for national preparedness of the Federal Emergency Management Agency (FEMA), and was responsible for policy formulation and program oversight of the Civil

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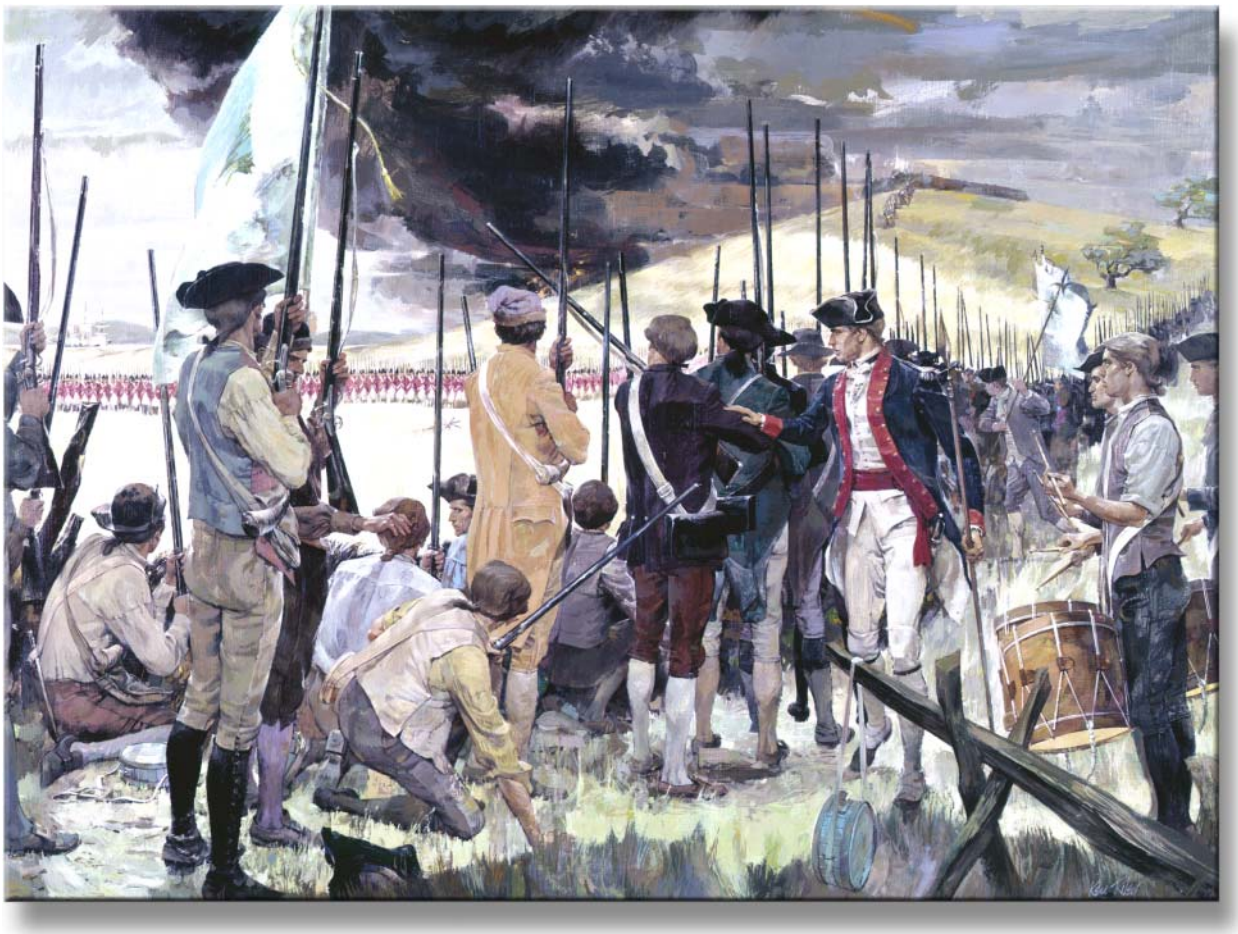

Bunker Hill, Boston, Massachusetts — June 17, 1775

Along the battle line on Breed's Hill and extending to the Mystic River (destined to go into history books as "The Battle of Bunker Hill"), the colonial militiamen coolly held their fire as seven crack regiments of the British Army, the best infantry in the world, advanced toward them. Up from the Charlestown landings came the red-coated enemy, anticipating an easy victory. An officer sternly admonished the militiamen, "Do not fire until you see the whites of their eyes!" With magnificent discipline and courage, they waited . . . fired . . . and thus began the War for Independence. The American militia proved to the world that civilian volunteers could be molded into trained fighting men, thus forging the high tradition of the National Guard in our armed forces.

The National Disaster Medical System

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Introduction

The National Disaster Medical System (NDMS) is a more than 20-year-old, federally sponsored, public-private partnership that functions as a nationwide medical system. It is designed to supplement state and local medical resources during disasters or other major emergencies, to supplement Department of Defense (DOD) and Department of Veteran's Affairs (VA) definitive care assets in the event of overwhelming casualty flows from overseas, and to support Department of State (DOS) assistance to American victims of overseas disasters. Four cabinet level Federal agencies provide oversight and support to the NDMS: Departments of Health and Human Services (DHHS), Homeland Security (DHS), Defense, and Veteran's Affairs.

The NDMS has three primary functions: medical response, patient evacuation, and definitive care. Upon activation, the NDMS can respond to a disaster location with a variety of medical assistance teams. In the event of an overwhelming number of casualties, arrangements can be made to evacuate patients from the local disaster area to other areas of the United States. And once those patients are evacuated, the NDMS has a network of approximately 1,800 participating hospitals that can provide definitive in-patient care to casualties.

Prior to 1 March 2003, the DHHS Office of Emergency Response functioned as the overall action agent for coordinating the implementation of health and medical services delivery in the event of an NDMS activation. This included the development and oversight of NDMS medical assistance teams, as well as the planning and coordination of patient evacuation and definitive care. With the standing up of the new DHS, however, all responsibility for the NDMS response teams was moved to the DHS Emergency Preparedness and Response Directorate (also known by its pre-DHS acronym of FEMA), while most of the non-NDMS related health response planning and coordination function remained in DHHS.

Current Medical Threat Environment

A disaster is usually defined as a low probability, high impact event that overwhelms the local resources available to deal with it in such a manner that allows the utilization of resources brought in from outside the impacted area. Current medical threats that could result in mass casualties within the U.S. can be divided into two major categories: natural and manmade disasters; the latter is further classified as accidental or intentional (i.e., terrorist) events (Table 1). Despite the recent attention to the threat of terrorist attacks, natural disasters remain the most immediate threat and the primary cause of disaster related casualties within the U.S.

An alternate view of large-scale emergencies is to classify them not by the cause, but by the event's impact. In this view the two categories are populations and infrastructure; note that the term 'population' need not specifically refer to humans. Any discussion on medical disasters, however, is best served by focusing on the human population. The former taxonomy is thus more appropriate for this article.

The largest number of fatalities resulting from a point-in-time disaster on U.S. soil was the Galveston hurricane of 1900, which killed 10,000 people. However, the largest overall disaster was the 1918-19 influenza pandemic, which killed roughly 600,000 Americans (and

Natural Disasters	Manmade Disasters
Hurricanes	Accidental
Tornadoes	Aircraft crashes
Floods	Other transportation accidents
Earthquakes	Industrial accidents
Wildland/urban interface fires	Structural failures
Volcanoes	Fires (arson and accidental)
Heat or cold waves	Terrorism/Intentional
Tsunamis	Conventional weapons explosive and incendiary weapons
Pandemics	Bioterrorism
	Chemical weapons
	Radiological (dirty bomb)
	Nuclear

Table 1. Leading Threats With the Potential to Cause Mass Casualties Within U.S. Borders.

many millions worldwide). Even today, with an effective vaccine available in most years, influenza kills an average of 36,000 Americans annually, while floods, hurricanes, and tornadoes combined kill fewer than 1,000 annually. Although strong catastrophic earthquakes and tsunamis are rare events, these two natural disasters have the greatest current potential to cause a large number of U.S. casualties in a single event, particularly as they are likely to occur with little warning.

Accidental manmade disasters are those involving various modes of transportation, hazardous materials releases, accidental explosions, structural failures, and structural fires. Aircraft accidents are usually characterized by high initial fatality rates and few injuries, and are almost always managed by the local or area emergency response agencies. They are thus generally characterized as mass casualty incidents (MCI) and not disasters (as defined earlier). Conversely, a hazardous material release in a populated area (e.g., the Bhopal, India industrial release) has a much greater potential for causing mass casualties requiring medical care, as well as adversely impacting the local medical infrastructure. Such an event would almost certainly be classified as a disaster since medical care is likely to bring resources (such as the NDMS) in from out of the immediate area.

Among the types of terrorist attacks listed in Table 1, conventional weapons and explosives are clearly the most frequently used. However, bioterrorism has already taken place twice in the U.S. (the 2001 anthrax attacks and a 1984 salmonella attack in Oregon), a chemical attack has taken place in Tokyo (1994), and a direct spread (as opposed to explosively dispersed) radiological attack has occurred in Moscow (1995). Only the terrorist detonations of a radiological ("dirty") bomb or of a nuclear bomb remain unfulfilled threats. Clearly, a nuclear attack in a major metropolitan area would be a worst-case scenario for both total deaths and injuries, and would vastly overshadow the 9/11 attacks should it ever occur.

It must be added, however, that while acute casualties are the primary concern of the NDMS, the greater impact of most disasters within the U.S. has been and is likely to remain, the subsequent disruption of daily life, which can extend for months or years after the disaster's initial impact. These disruptions result from loss of infrastructure and other economic after affects, and from heightened vigilance and psychological effects, as well as from the loss of life and the long-term needs of the injured.

NDMS Structure and Activation

As stated, the NDMS is a partnership that involves four federal departments. Within the executive branch, both the National Security Council and the Homeland Security Council provide the broadest policy oversight to the NDMS (Figure 1). A senior policy group, consisting of senior executives from DHHS, DHS, DOD, and VA, sets policy goals for national medical preparedness and oversees the NDMS Directorate Staff. The Directorate Staff, in turn, implements the policy goals within their participating agency, and also indirectly oversees the NDMS and its participating organizations.

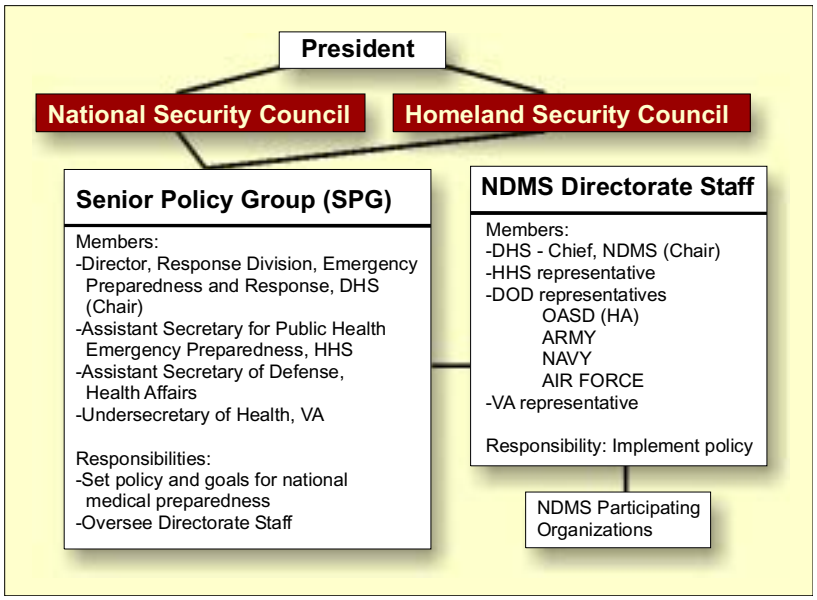


Figure 1. NDMS Organizational Structure

Activation of the NDMS and its disaster response teams may occur as a result of five circumstances. First, and foremost, is in response to a Presidential disaster declaration under the authority granted by the Stafford Act (the full title being the Robert T. Stafford Disaster Relief and Emergency Assistance Act). Second, if a disaster has not occurred, DHS may activate the NDMS under its own authority in anticipation of an event, or it

may activate the NDMS to support a State governor or DHHS request for major medical assistance. This is often done to support special events of national significance (known as a National Special Security Event or NSSE) such as the Olympics or a national political convention, where the pre-positioning of disaster response assets is part of prudent planning. Third, the National Transportation Safety Board may request activation to support their response to a transportation accident. This type of activation usually involves a Disaster Mortuary Operational Response Team (DMORT), to assist with victim recovery and identification. Fourth, the U.S. State Department may request NDMS activation in the event of a disaster involving U.S. nationals overseas (e.g., an embassy bombing). Finally, the NDMS may be activated at the request of DOD should a conventional overseas conflict result in an overwhelming number of casualties returning to the United States.

In the event of an NDMS activation, the basic concept of operations is contained within the new National Response Plan (or NRP, which replaces the Federal Response Plan, most recently revised in 1999). The NRP describes how the federal government mobilizes resources to support state, local, territorial, and tribal governments in responding to major disasters or emergencies. The plan applies to all federal elements, and also attempts to integrate state, local, and other entities that are involved in the planning for – and response to – a significant disaster or emergency. The NRP establishes and describes policies and planning assumptions, and outlines those federal actions and activities that could be called upon to support state, local, territorial, and tribal government response efforts.

The NRP also establishes a means of facilitating federal and state coordination during response operations. This coordination is through an incident command system (ICS) which is itself part of the National Incident Management System (NIMS). NIMS replaced an older system known as NIIMS (with an additional 'I' for 'interagency'). Adoption of both the NRP and NIMS is mandatory for all federal agencies, and is a prerequisite for any private or public agency applying for federal disaster or terrorism preparedness, response, mitigation, or recovery funds.

NDMS Teams

The NDMS currently counts among its disaster response resources 108 separate response teams, categorized into eight different types (Table 2). Of these eight, the Disaster Medical Assistance Teams (DMAT) are further subdivided into specialty teams such as burn, pediatric, mental health, and crush response teams. However, not all of these teams can be considered fully operational 100 percent of the time, as some teams: may be short of personnel or equipment; may be newly organized and still under development; or—in the case of different types of teams that are geographically collocated—may share resources with another team. In the latter case, for example, most of the National Medical Response Team/ Weapons of Mass Destruction (NMRT/WMD), Medical Surgical Response Team (MsuRT), and specialty DMAT teams share personnel and resources with a geographically collocated DMAT, so that both collocated teams could not be deployed simultaneously. Although personnel or equipment shortages prevent teams designated at the augmentation and developmental levels from deploying effectively as a full team, they may supply individuals to supplement other teams. "Fully deployable" teams reach that highest readiness designation by satisfying all NDMS training, personnel, and equipment requirements, along with having prior deployment experience that includes a demonstrated ability to mobilize rapidly and perform their mission under austere conditions.

DMATs and DMAT Specialty Teams	
22	Disaster Medical Assistance Team - (Fully Operational/Operational)
33	Disaster Medical Assistance Teams - (Augmentation/Developmental)
4	National Medical Response Teams / WMD capable
5	Burn Teams
2	Pediatric Teams
1	Crush Medicine Team
Other Teams	
3	Medical Surgical Response Teams*
2	Mental Health Teams
4	Veterinary Medical Assistance Teams *
11	Disaster Mortuary Operational Response Teams (1 WMD capable)
10	National Pharmacist Response Teams*
10	National Nurse Response Teams*
3	Management Support Team s (ad hoc)
	Joint Management Team(s) (currently under development)

*Counts include Includes developing, non-fully operational teams

Table 2. Current NDMS Response Team Assets

Historically, NDMS teams were organized by a local sponsor, such as a hospital, local government, or public

safety organization, under the guidance of the NDMS and DHHS Office of Emergency Response. The sponsor signed an agreement with the federal government to place the team in the NDMS system when needed, and in exchange for allowing the team to gather experience through federal deployments (and reimbursing all deployment costs), the sponsor agreed to recruit, train, and maintain the team in accordance with NDMS policies. As such, many teams are active locally and serve as state or local assets in the event of a local disaster or event. Under DHS and its component agency FEMA, however, the focus has been moving away from dealing with the sponsoring organization as a prime intermediary and more toward dealing directly with the team and its member personnel. While this is a perfectly reasonable and logical approach, many teams do not exist as legal entities separate and apart from their sponsors. In other cases the sponsoring agency is reluctant to simply walk away from its investment in their team. Therefore, this new thinking leaves many issues still in need of resolution.

Under DHHS, team members were designated as intermittent federal employees, and stayed in the payroll system as non-employees until they were 'federalized' and compensated when deployed or otherwise utilized by the NDMS. This methodology left intact—at the federal level—the volunteer nature of the teams and their members. Under FEMA, however, team members on intermittent employee designation are considered full-time—yet uncompensated—employees and subject to all applicable federal employee rules and ethical standards. Again, while reasonable, there are many subtle issues in this status change that are problematic for many team members and that need resolution. Perhaps the most critical benefit of federalization is that it allows the team's licensed medical professionals to legally practice outside the state in which their license is issued. Federalization provides team members with liability protection under the Federal Tort Claims Act, as well as federal workers' compensation coverage for the duration of the team deployment. In addition, team members are compensated at the corresponding federal civilian employee pay grade, and have the same job protections as members of the National Guard and Reserve forces.

Disaster Medical Assistance Team (DMAT)

The primary NDMS response asset is the DMAT. A DMAT typically deploys to a disaster site with 35 personnel. Although team rosters are subject to modification to meet mission requirements, a standard DMAT deploys with at least three physicians, four physician assistants or nurse practitioners, eight nurses including two supervisory nursing specialists, four paramedics or emergency medical technicians, one pharmacist, and one pharmacy assistant. Most DMAT medical professionals have training in emergency medicine or a primary care specialty, and are certified in advanced trauma life support and advanced cardiac life support. There are also several non-medical personnel, including logistics, communications, safety, and administrative personnel. However, a fully operational DMAT will have over 100 volunteers on its roster, because to ensure the ability to muster and deploy personnel rapidly, a team should be at least three deep at each position. In fact, some DMATs have over 200 volunteers available.

Depending on the mix of casualties, a DMAT can handle up to 250 patients per 24-hour period, and can initially operate for up to 72 hours without resupply. (In addition to medical supplies and equipment, teams bring their own shelter, power, communications, food, and water for three days of sustainment.) The maximal throughput assumes that most of the casualties seen will be ambulatory and have relatively minor injuries or illnesses. Depending on the availability of evacuation (transport) assets, a DMAT can reasonably handle up to 50 seriously ill or injured patients a day, providing initial stabilization for subsequent transport to a definitive care facility. But holding capacity is limited, and a DMAT has no surgical capability, nor any integrated medical evacuation capability.

In addition to deploying to medically austere environments, such as disaster sites, DMATs and other NDMS teams can go into existing fixed facilities to assist or supplement overburdened local medical staff. For example, following the February 2003 Rhode Island nightclub fire, NDMS burn team personnel and equipment deployed to local hospitals in the area and supplemented existing burn ward assets. Another example is found in the Fall 2004 hurricane season. In several instances DMAT personnel were inserted outside of pre-existing hospital emergency departments and served as triage and ambulatory care facilities. This allowed the hospital the opportunity to minimize their census to only those patients truly requiring inpatient care. The teams also provided clinical providers to the hospitals themselves. This permitted some hospital

staff to stand down and attend to their own personal situations; a luxury they would not otherwise have had for the duration of the post-hurricane recovery period.

Patient Evacuation and Definitive Medical Care

Neither the NDMS teams nor DHS/FEMA own any patient evacuation assets. To date, all NDMS domestic activations have relied on local private and governmental evacuation resources, primarily ground and helicopter ambulance services, to move patients from NDMS triage and treatment facilities to local and regional hospitals, as required. DOD has lead responsibility to evacuate large numbers of casualties from a major disaster location to other areas within the U.S., because it owns the vast majority of patient evacuation resources within the federal government. In such an event, control of patient staging, regulating, movement, and reporting would be performed by DOD, making use of the existing network of 62 Federal Coordinating Centers (FCC).

The FCC, which are jointly managed by DOD and the VA, provide the link between the NDMS patient evacuation and definitive care mission functions. The FCC are concentrated in major metropolitan areas, have access for patients arriving or departing by air, and have local hospital support. They have the responsibilities of providing patient reception and distribution and coordinating NDMS definitive medical care in their assigned local areas. They also solicit local hospitals to participate in the NDMS and coordinate with local authorities for planning purposes or in the event of an NDMS activation that would involve local medical assets.

The NDMS has a network of roughly 1,800 local participating hospitals that have made a voluntary commitment to support the NDMS and treat its patients on a reimbursable basis, as required. The DOD and VA are the two federal agencies that jointly share responsibility for executing the NDMS definitive care mission, and participating hospitals have signed joint agreements to participate in the NDMS system. (All DOD and VA hospitals are automatically NDMS participants.) All participating hospitals provide periodic bed availability data on a routine basis to their nearest FCC and agree to provide the same information when requested on an emergency basis. They also participate in NDMS sponsored readiness exercises. However, it must be noted that while the NDMS evacuation and definitive care functions have undergone testing during exercises, they have—thankfully—never needed to be activated and perform under any real-life mass casualty situation.

Among the many pressing issues now facing the NDMS, its migration to DHS/FEMA has generated many issues that, at a minimum, alter its basic structure and mission. Further, it is conceivable that certain of these issues, until resolved, might very well cripple the NDMS in certain circumstances. As described earlier, some of these issues arise as differences between the way FEMA does business with the teams and members and the way that DHHS did. At the systems level these differences are best exemplified by the situation now found with the NDMS definitive care/inpatient mission. Hospitalization at or away from a disaster site is a routine part of the health care industry and, as such, is well within the understanding and purview of DHHS. Conversely DHS generally, and FEMA specifically, have no clinical components other than the NDMS.

With no history or understanding of inpatient definitive hospital care, the third NDMS mission is not something for which DHS/FEMA is yet willing to be responsible. The general reasoning behind this is that the Stafford Act does not provide a funding mechanism for any services that might be delivered outside the disaster's immediate geographical impact area. Accordingly, it currently seems that DHS/FEMA assumes it will terminate its involvement once a patient has left the scene. Viewed differently, DHS/FEMA does not see its responsibility as extending to a hospitalized patient that may be hundreds of miles removed from the disaster site. Yet, it is clear from Congressional mandate and historical context that such a scenario is clearly a portion of what the NDMS was created to do. To their credit, the cognizant DHS/FEMA officials have taken tentative steps to provide for these services (should they be required) while a permanent solution is being sought.

Conclusion

Created in 1984, the NDMS is a partnership between many public and private sector organizations and four federal agencies. It provides a critical service to those with medical needs after a disaster. Using medical, mortuary, and veterinary teams, the NDMS provides those in need with medical response, evacuation, and inpatient treatment from the site of a disaster, through evacuation, and into hospitals throughout the United States. Although currently struggling with the changes inherent in moving from DHHS to the newer DHS, the

NDMS—through its most valuable assets, its team members—continues to come to the aid of those with medical needs after a disaster befalls them. And as these changes are worked through, the NDMS will be better prepared than ever to join its new colleagues within DHS to face the challenges of a post-11 September world.

About the authors:

CAPT David Arday, M.D., MPH, recently completed an 18-month tour at DHS as the Chief Medical Officer of NDMS. He is board certified in both preventive medicine and occupational medicine, and trained as a medical epidemiologist at the Centers for Disease Control and Prevention. On active duty with the Commissioned Corps of the U.S. Public Health Service, he is currently assigned to the TRICARE Management Activity in Falls Church, Virginia. **John K Gaffney**, CEM, EMT-P, is a certified emergency management professional who is a civilian employee in the Public Health Service. He is assigned to the Office of the Director, National Disaster Medical System (NDMS). Charged with advising and assisting the director, he is responsible for a number of special projects and acts as an ombudsman to the nation's disaster medical assistance teams. Previously senior flight paramedic and Director of the Emergency Management Division at the University of New Mexico Health Sciences Center, Gaffney also commanded the state's disaster medical assistance team. In this latter capacity, he responded to disasters ranging from Hurricane Hugo to the World Trade Center and Pentagon in September 2001. He is a Certified Emergency Manager with nearly thirty years specializing in public safety special operations.

NOAA AND NOAA CORPS PLAY VITAL ROLE IN HOMELAND SECURITY

CAPT Phil Kenul
National Oceanic and Atmospheric Administration

The tragic events of 11 September 2001, have altered the nation's perception of national security and prompted the federal government to reevaluate its priorities with respect to homeland security (HS), including those related to the nation's oceans and coasts. A majority of the nation's population lives within 50 miles of the coast and U.S. seaports are vulnerable choke points and strategic targets for attack. Nearly 95 percent of the U.S. foreign trade enters and leaves by ship, and the American economy—foundation of national security—is dependent upon uninterrupted and efficient flow of goods and services across U.S. borders. Our commercial ports also serve as logistical centers for the deployment of U.S. military forces. Although the National Oceanic and Atmospheric Administration (NOAA) is best known as a premier science and service agency whose mission is to describe and predict changes in the Earth's environment, NOAA expertise and services can be applied to other areas, including assisting the country in preserving national security. NOAA is uniquely positioned to provide essential products and services to ensure U.S. ports and coasts remain open and are protected.

At the vanguard of those advancing NOAA's homeland security efforts are officers of the NOAA Commissioned Corps. Most Americans have never heard of the NOAA Corps, which is an unarmed commissioned Service of approximately 275 scientists and engineers who support NOAA's science mission. For example, NOAA Corps pilots fly the NOAA "hurricane hunters," which penetrate some of nature's strongest storms. NOAA Corps officers command NOAA's research ships, and may be called upon to assist with other national disaster response teams. A NOAA ship located the wreckage of TWA Flight 800 and John F. Kennedy Jr.'s downed aircraft. Today, an NOAA Corps officer is director of NOAA's Homeland Security Program Office, charged with keeping the agency up and running in the event of an emergency. The office is tasked with supporting the Department of Homeland Security (DHS) Operations Center with an NOAA Corps watch officer and civilians who integrate NOAA's assets and services into national homeland security operations. Recent national security training events and the unusually intense 2004 hurricane season have required NOAA officers and civilians to staff the center round-the-clock.

Post-Attack Activities

On 11 September many federal, state, and local agencies and organizations moved rapidly to aid in the recovery efforts. NOAA's response team provided tools, technology, and personnel on-site at the World Trade Center, the Pentagon, and in many support locations around the country. NOAA Fisheries law enforcement agents were engaged within hours of the disaster, assisting with search and rescue efforts at ground zero in New York City, while others were assisting the Federal Bureau of Investigation with inquiries regarding terrorist activities. NOAA's National Weather Service forecast offices in Virginia and New York provided special forecasts to the Pentagon and lower Manhattan during recovery efforts. The White House also asked for special weather reports to evaluate potential impacts on the activities conducted by the Federal Emergency Management Agency.

At the request of the Army's Joint Precision Strike Demonstration, NOAA Corps officers directly supported search and recovery efforts at both the World Trade Center and the Pentagon disaster sites with mapping and remote sensing. NOAA coordinated a highly detailed mapping mission at both disaster sites using high-resolution aerial photography and terrain mapping LIDAR (light detection and ranging). The data and images were critical for search and recovery efforts in that they established an accurate spatial reference frame from which rescuers could perform effective recovery. They also provided an accurate bird's eye view of the scene, which was critical for locating structures such as elevator shafts.

Further, at the request of the Environmental Protection Agency and U.S. Geological Survey, a NOAA Corps officer working with National Aeronautics and Space Administration scientists flew a specialized aircraft equipped with the Airborne Visible/Infrared Imaging Spectrometer system. The data were used to identify

and locate fallout from the World Trade Center plume and to assist emergency crews by determining hot spots.

Since 11 September, NOAA Corps officers' activities in response to interagency cooperation have increased significantly. In response to U.S. Coast Guard harbor security needs, NOAA Corps officers, assigned as regional navigation managers and scientific support coordinators, assisted in facilitating meetings on port security issues and contingency planning with the Navy, Coast Guard, and other government and local officials in such places as Hampton Roads, Va.– home to the Nation's largest military and commercial port operations.

The Navy requested NOAA provide specialized side scan sonar imagery in the channels for 34 strategic commercial shipping ports. NOAA was tasked by the Navy to provide these critical data in support of underwater port security operations in 2002. NOAA hydrographic ships (which are commanded by NOAA Corps officers) and Navigation Response Teams (NRT) currently have the capability to collect high resolution bathometric imagery in U.S. harbors and shipping channels. NOAA ships and NRT routinely perform hydrographic side scan sonar surveys updating NOAA navigational charts supporting our nation's commerce through safe, efficient, and environmentally sound transportation.

The nation's ability to quickly respond to an intelligence report that an underwater mine has been laid on the bottom of a major U.S. harbor is critical to the continuous flow of military operations and maritime commerce. NOAA Corps officers, utilizing hydrographic survey techniques, are leading the effort to establish a mine detection capability with the U.S. Navy and U.S. Coast Guard in the nation's ports in support of maritime domain awareness. If a threat condition occurs, NOAA's bathymetric survey data will be used as a baseline of pre existing objects so mine countermeasure assets can be utilized more effectively to determine if a mine has been placed on the sea floor. Timeliness is critical to minimize the potential detonation of a real mine, or the time span a port is shut down while the Navy determines if the shipping lanes are clear.

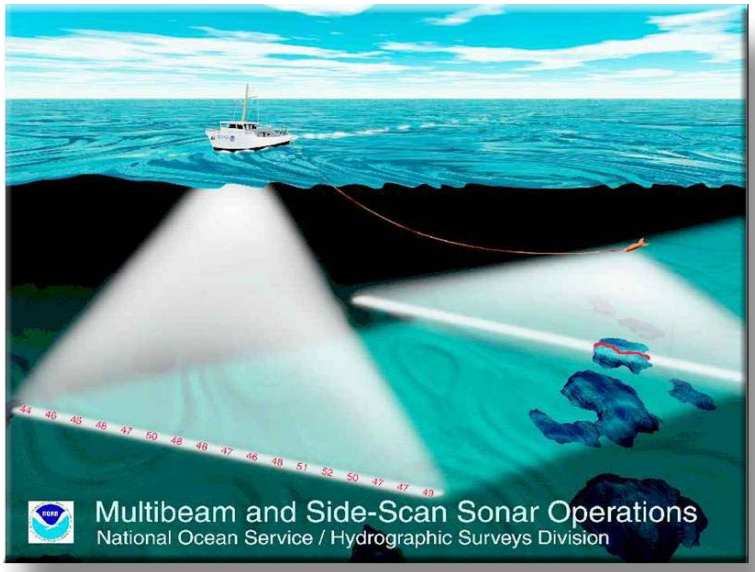
NOAA Corps pilots flying NOAA aircraft have provided the data for 17 major city mapping data sets to the Army Joint Precision Strike Demonstration Program Office and the National Geospatial-Intelligence Agency (NGA), formerly the National Imagery and Mapping Agency (NIMA). This relationship with the U.S. Army allows NOAA access to its LIDAR systems and meets the need for a Continental United States response capability within 24 hours of an event, which did not exist before 11 September. NOAA Corps pilots continue to support the U.S. Army by collecting LIDAR data to create precision three-dimensional models for security planning and response purposes.

Though the NOAA Corps may be the smallest uniformed Service of the United States, NOAA Corps officers are very active in the post-conflict interagency cooperation, as are NOAA civilian scientists, engineers, and technicians. The following are some of NOAA's products and services as applied to homeland security.

NOAA Homeland Security Products and Services

NOAA has identified more than 50 capabilities that could immediately advance the nation's HS efforts. NOAA leverages these already existing programs, technologies, and expertise in new and innovative ways to assist the U.S. Department of Homeland Security (DHS), and has actively partnered with many other state, local, and federal agencies addressing homeland security issues.

Alerts and Public Warnings



- **NOAA Weather/All Hazards Network:** The NOAA National Weather Service broadcasts warnings, watches, forecasts, and other hazard information 24 hours a day via a nationwide network of radio stations. Working with the Federal Communication Commission's Emergency Alert System, the NOAA weather radio (NWR) was leveraged to serve as an "all hazards" radio network for both natural (severe storms, hurricanes, tornadoes, earthquakes, and volcanic activity) and environmental (chemical spills and bio-hazardous releases) events. In June 2004, NOAA further leveraged its NWR capabilities by signing an agreement that allows the DHS to send critical all-hazards alerts and warnings directly through the NOAA All-Hazards Network. To complement NWR's new homeland security messaging capabilities, NOAA, DHS and the U.S. Department of Education plan to initiate a pilot program that provides NOAA weather/all hazard radios to public schools in 10 to 15 cities, and two to three rural states.

- **Maritime Domain Awareness:** NOAA has assisted the U.S. Coast Guard and U.S. Navy in implementing the Maritime Domain Awareness (MDA) program, which is developing a national MDA strategy that will ensure interagency coordination of homeland security policy and requirements in marine areas.

- **MDA Automated Identification System (AIS):** The NOAA Weather Service and Coast Guard have entered into an agreement to develop, install, operate, and maintain marine two-way communications systems on NOAA data buoys to relay automated identification signals (AIS) through satellite links to the Coast Guard for vessel tracking. AIS is a shipboard system that broadcasts vessel data such as name, course, speed, and call signal to other AIS vessels and stations for collision avoidance at sea. However, since AIS was previously only carried by VHF signal, it had a limited range. The installation of satellite relays on NOAA data buoys will expand the Coast Guard capability to monitor and track vessels approaching U.S. territorial waters well beyond the line of site.

- **Navigational Response Team - Shallow Water Survey Craft Project:** NOAA outfitted several NRT vessels with a selected suite of hull-mounted sonar systems and associated navigation, data collection, data processing, and data storage systems. These new monitoring systems will enable NOAA to more quickly respond to coastal emergencies. NOAA is also partnering with the Coast Guard in a pilot program to use hydrographic survey technology for mine detection in restricted port areas.

- **NOAA's Vessel Monitoring System (VMS):** The NOAA VMS uses global positioning system (GPS), satellite communications, and a secure network to monitor fishing vessel compliance. However, this evolving capability may soon be used for marine enforcement and homeland security needs because it can track suspicious vessels at sea, and supports two-way message communications between vessels. Pending legislative approval, the expanded VMS could encompass the entire nation and would be able to relay near real-time data to the Coast Guard for enforcement and homeland security purposes.

Forecasts and Dispersion Modeling

- **Reverse 911 National Capitol Region Alert Pilot:** NOAA is working to integrate real-time

weather models and hazardous plume predictions to provide the DHS with the capacity to use reverse 911 technologies (automatically call all phones within the affected area with information and directions). Forecasters at the Sterling, Va., NOAA Weather Forecast Office will be able to provide the DHS with toxic plume dispersion information and geographically specific areas that can assist DHS staff and others in issuing more targeted homeland security alerts and warnings.

- **DCNet:** Monitoring stations have been installed in Washington, D.C., to support one of the first dispersion forecasting systems specifically designed for urban areas. Collectively, these stations — known as DCNet — collect and analyze standard meteorological data (as well as wind speed, direction, and turbulence data) at frequent intervals to help define downwind areas of potential high risk. In doing so, DCNet allows users to gain a better understanding of how hazardous trace gases and particles are dispersed in urban areas.

- **Air Dispersion Models:** NOAA has also linked its three operational air dispersion models — the Aerial Locations of Hazardous Atmospheres (ALOHA – local scale), Hazardous Atmospheric Release Modeling (HARM – urban scale), and Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT – regional scale) — to support emergency planners and first responders in detecting and tracking chemical and biological agents in the atmosphere.

- **Chemical and Biological Spills Models:** NOAA continues to help emergency managers and first responders plan for possible (or mitigate existing) chemical or biological spills near the coast using both its Computer-Aided Management of Emergency Operations and General NOAA Oil Modeling Environment models to predict the movement and environmental impact of such spills.

Remote Sensing

- **LIDAR and Aerial Photography:** NOAA continues to use LIDAR elevation data and high quality aerial photography in support of homeland security surveys. Specifically, these technologies can be used to protect critical infrastructure, aid in disaster response and recovery efforts, verify dispersion modeling, and provide high-resolution maps in support of special security events.

Interagency Cooperation

Another important component of NOAA's homeland security efforts involves forming collaborative partnerships with other state, local, and federal entities addressing homeland security issues.

- **Interagency Modeling and Atmospheric Assessment Center (IMAAC):** NOAA is now helping to organize and coordinate federal emergency response through the IMAAC, which will provide decision makers with custom products and a single point of contact for all-hazards dispersion modeling predictions and assessments.

- **NOAA Fisheries Office for Law Enforcement (OLE):** NOAA OLE agents continue to support investigative, security, and search and recovery efforts in collaboration with other federal law enforcement agencies, including the Federal Bureau of Investigation's Joint Terrorism Task Force and the Department of Justice Anti-Terrorism Task Force.

- **Homeland Security Operations Center Support (HSOC):** Since June 2004, NOAA staff members have supported the HSOC, which provides operational communications, information, and resource coordination for domestic incident management. Specifically, NOAA provides environmental/weather forecasts and air dispersion vulnerability assessments based on meteorological conditions at venues across the county, including national holiday events (such as July 4th), the Republican and Democratic National Conventions, and even 24/7 support for natural disasters (e.g., Hurricanes Charley, Frances, Ivan, and Jeanne).

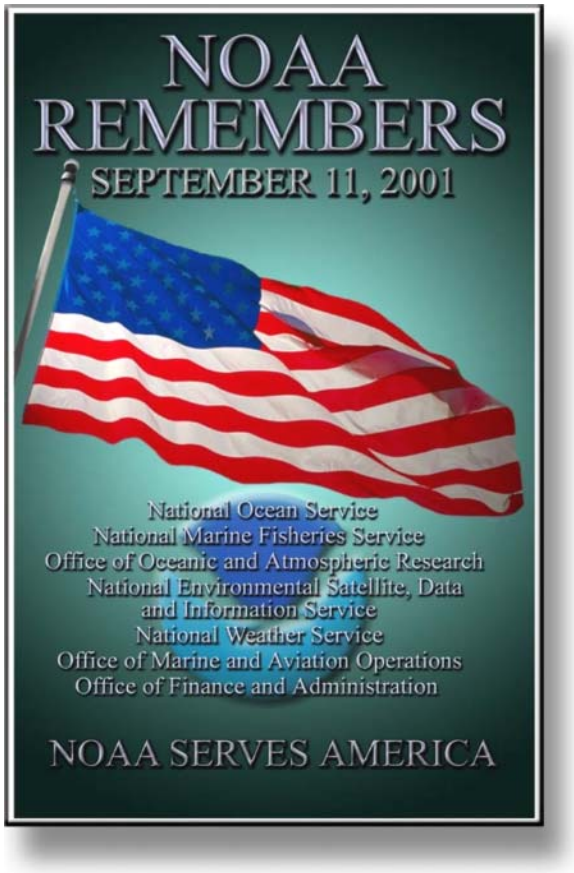
NOAA and NOAA Corps contributions to homeland security cannot be overstated. NOAA has supported, and will continue to support, the nation with its hazardous material spill response capabilities; atmospheric and waterborne dispersion forecasting; vessel monitoring systems; and support for communities and emergency responders (including rapid on-site weather forecasting to support emergency operations, and civil emergency alert relay through NOAA Weather Radio). NOAA is also ready to provide NOAA ships, aircraft, global

observing systems, and professional law enforcement officers to serve the nation when the need arises.

Author note: Jeanne G. Kouhestani, a NOAA public affairs officer, contributed to this article.

About the Author:

CAPT Philip M. Kenul, NOAA Corps, was appointed Director of NOAA's Homeland Security Program Office in 2003, the first to hold this position. He is responsible for coordinating the delivery of NOAA's products, services, and capabilities to Federal, state, and local emergency managers and responders; and strengthening NOAA's own infrastructure to protect agency personnel, facilities, and information services. Prior to becoming Director, Captain Kenul served as a NOAA WP-3D "hurricane hunter" pilot at NOAA's Aircraft Operations Center in Tampa, Fla., where he has also been Heavy Aircraft Coordinator, Special Projects Officer, Chief of Flight Management, and Chief of the Aircraft Maintenance Branch. Previously, he was detailed to the Military Operations Branch of the Naval Research Laboratory, flying P-3 aircraft worldwide, and serving as Detachment Officer in Charge, Mission Commander, NACVOCEANO Liaison Officer, and Assistant Chief of Military Operations Branch. Captain Kenul's other NOAA experience includes pilot of light aircraft and a tour aboard a NOAA hydrographic survey vessel. He was commissioned into the NOAA Corps in 1981. CAPT Kenul holds a bachelor's degree in biology from the State University of New York and a master's degree in environmental/civil engineering from the University of Texas-Austin.



The U.S. Coast Guard's Maritime Security Strategy

RADM R. Dennis Sirois
U.S. Coast Guard

Protecting U.S. sovereignty has been a Coast Guard responsibility since our origins in 1790. Then a young democracy, the future of the United States of America rested on sound, secure borders to ensure freedom and economic prosperity. Over 214 years later, in the present security environment with non-state actors using unconventional and asymmetric weapons to inflict harm on American citizens, our economy, and symbols of democracy, the U.S. Coast Guard's presence is more important than ever. A terrorist incident in one of our critical ports would have a serious and long-lasting impact on not only the U.S. economy but global shipping and the global economy as well.

Roles and Missions

A unique instrument of national security, the U.S. Coast Guard is a multi-mission force and member of the military, law enforcement, and intelligence communities. We like to note that we "speak" four languages: we speak to law enforcement; we speak to our military partners; we are a member of the intelligence community; and we daily interact on an international basis. Coast Guard men and women play key maritime security roles at the local, state, federal, and international levels with government, industry, and private stakeholders alike to be aware of, protect, defend, and respond to threats in the U.S. and international maritime domain. Maritime security, however, is not unique to the United States. It is also an essential element of world security. All nations share a global common interest in protecting natural resources and sovereignty, as well as stopping illegal drugs, migration, and of course terrorism. Together, we rely on maritime trade to fuel our economic growth.

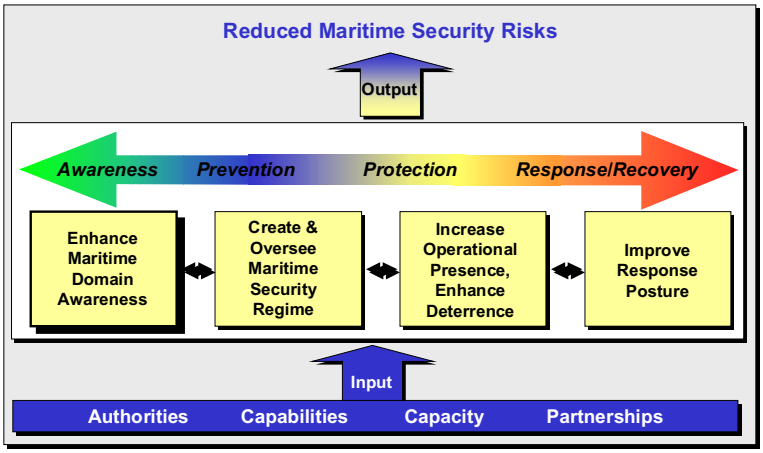
Maritime Security Strategy

The Coast Guard's Maritime Security Strategy, in alignment with the United States' national security, military and homeland security strategies, seeks to identify, deter, degrade, and defeat maritime security threats while simultaneously reducing America's vulnerabilities to, and minimizing the adverse consequences of, a maritime security incident on U.S. national interests.

The strategy consists of the Coast Guard's net assets, which include authorities, capabilities, capacity, and partnerships feeding into the four pillars of the strategy: maritime domain awareness (MDA), the maritime security regime, deterrence, and response. Our maritime security operations, whether aimed at illegal narcotics trafficking, migrant smuggling, or terrorist activities, employ these elements of our net assets to reduce the maritime security risks throughout the situational spectrum from awareness through response.

Two components of the strategy – maritime domain awareness and partnerships – are both key to the Coast Guard's defense-in-depth approach to maritime security. Together, they provide multiple opportunities to detect various threats as early and as far from the U.S. shores as possible, and to maximize the time available to determine the optimal course of action.

Maritime Security Strategy



Homeland Security

Maritime Domain Awareness

The definition (from the National MDA Summit) is the effective understanding of anything associated with the global maritime environment that could impact the security, safety, economy, or environment of the United States.

The phrase "anything associated" expands the scope of MDA beyond the high water

mark, so to speak, to include the many things related to the maritime environment, not just those things inherently part of it.

MDA is all about information, an important distinction. The vessels, the people, and the cargo are the information that is out there; this is not necessarily an exhaustive list. In order for information to be of use to us, we have to collect it, analyze it, and disseminate it. This facilitates decisions at all levels–strategic, operational, and tactical.

We use technology and processes to collect, analyze, and disseminate information and produce products for those who have to make decisions. If those who need maritime information cannot get the right information tailored to their needs, then the process has failed and, ultimately, the quality of the decisions is compromised.

It is important to note here that MDA does not include the operational response piece, that it is only the information process. This avoids many conflicts. It allows those with a common need for maritime information to pool efforts and resources, and makes it easier for us to partner with others in government, industry, and other nations.

Also of note is that, although this process is the same as the intelligence cycle, MDA is much broader than intelligence and (most notably) includes operational data such as blue force tracking.

The macro-level tasks that we have to do to achieve MDA include: monitoring vessels, people, and cargo; keeping an eye on areas of interest, such as maritime choke points; build and access relevant databases; and come up with an infrastructure to manage the flow of information.

Common Operational Picture

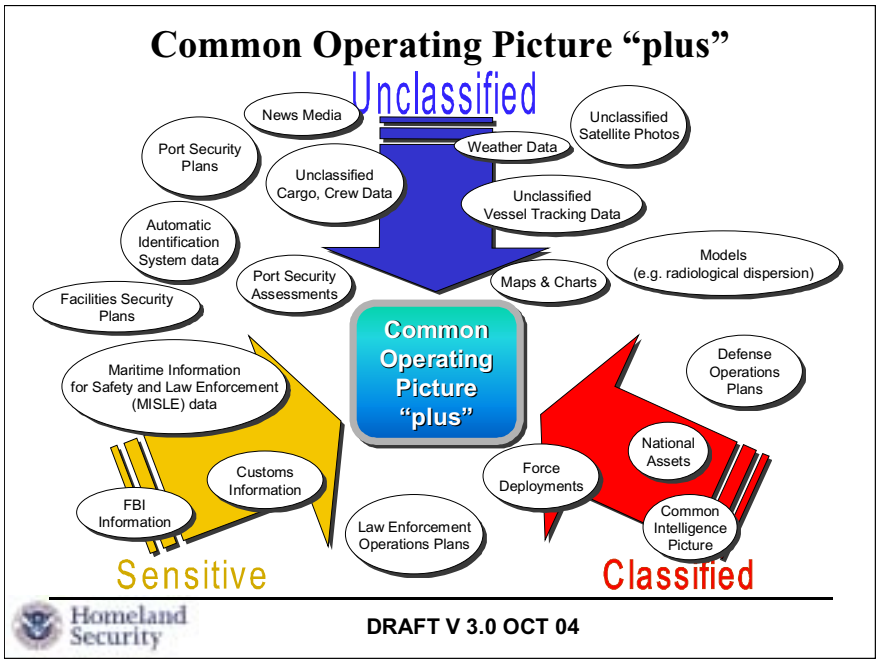
One of the biggest pieces of MDA is the common operating picture (COP). The COP is known by different terms: the common relevant operating picture (CROP), recognized maritime picture (RMP), etc. Basically, it is a geospatial depiction of all the relevant activities in a given area with appropriate inserts and data access based on user needs.

The common operating picture "plus" represents the broad and inclusive nature of what we envision as the end-state of the COP. The COP is often thought of as consisting of only a collection of vessel tracks, but it is a great deal more than that.

The COP has to include information from both classified and unclassified realms including sensitive but unclassified (SBU) data. Key intelligence information must be accessible and depicted in an intuitive manner. The COP has to include access to planning documents from all maritime stakeholders, including military, civil, and industry. Threat and vulnerability assessments have to be accessible, as well as weather data and key databases, such as our own maritime information database.

The Coast Guard has two relatively new intelligence elements: the Maritime Intelligence Fusion Centers (MIFC), and Field Intelligence Support Teams (FIST). The two MIFC support operational commanders with all source, fused intelligence and have a major role in providing the intelligence feed into the COP. The FIST operate at the field level, working closely with port-level partners and field units.

The Coast Guard is involved in many MDA related initiatives, identified by their role in the information flow



process, and divided by surveillance and monitoring activities, intelligence activities, and command centers.

Partnerships

The U.S. Maritime Strategy also depends on extensive partnerships to accomplish MDA. Unprecedented partnerships at every level, including those forged and nurtured with our international friends, are vital to our success.

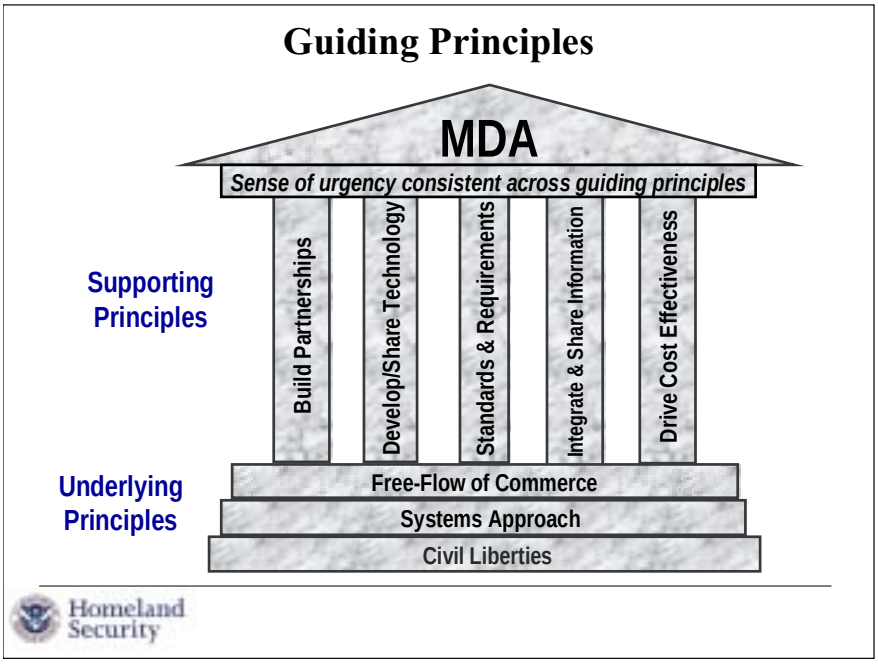
For example, within the U.S. Government the Coast Guard works closely with other agencies within the Department of Homeland Security (DHS), as well as the Department of State, the Department of Justice, and the Department of Defense (DOD) in executing our counter drug mission. Likewise, our national defense mission warrants a very close relationship with our DOD brethren, especially (but not exclusively) with the U.S. Navy. Our fisheries enforcement mission requires the Coast Guard to partner with the Department of Commerce, and we support the U.S. Secret Service–lead federal agency for National Special Security Events such as the recent G-8 Summit, and the Democratic and Republican National Conventions.

With the Maritime industry, many of our operational activities require close cooperation–especially our ports, waterways, and coastal security mission, which is most focused on protecting against terrorist threats. We accomplish this through stakeholder membership within port security committees and frequent interactions as a result of developing and exercising vessel, facility, and area security plans in accordance with the Maritime Transportation Security Act of 2002.

Recognizing this imperative for partnerships, it was clear that before we could start prescribing technical solutions for MDA we had to work through some tough policy issues. To bring this about, we met with the US Navy, DOD, and DHS, and held a "National MDA Summit."

Co-chaired by the Deputy Secretary of DHS, and Assistant Secretary of Defense for Homeland Defense, the summit was attended by high level interagency leaders from multiple departments, including the Commandant of the Coast Guard, the Chief of Naval Operations, and leaders of the U.S. intelligence community, law enforcement, and virtually all agencies with maritime interests.

These senior leaders worked to develop a common vision, refined and agreed on the definition of MDA, and agreed to a set of guiding principles to achieve a desired end state. Of note was the leadership's desire not to lose the sense of urgency precipitated by the events of 11 September 2001, the importance of preserving civil liberties, and a philosophy that increased maritime awareness need not impede commerce but should, in fact, facilitate it.



As MDA matures, both within the U.S. Coast Guard and at the U.S. National level, relationships with other nations take an even more important role.

To improve MDA, we will build on established relationships and participate in existing forums, such as the International Maritime Organization. We will pursue bilateral or regional discussions that identify common ground where we might mutually utilize each other's strengths. Overall, the goal is to improve maritime information sharing worldwide in a manner that is mutually beneficial and increases maritime security.

International agreements

Beyond information sharing and MDA, the U.S. Government has supported the Coast Guard's maritime security efforts by negotiating various international agreements. These cooperative negotiations include: six-part counter drug bilateral agreements; similar maritime migration agreements; agreements pertaining to High Seas Driftnet fishing; shiprider agreements; proliferation security agreements, such as those recently concluded with Liberia, Panama, and the Marshall Islands; the container security initiative (CSI); and the Customs-Trade Partnership Against Terrorism (C-TPAT) program.

Even in those instances where no agreement exists, it is conceivable that the U.S. government may request the authorization, in an ad hoc arrangement, to board a vessel abusing a flag (registry), or to act on behalf of a government against a vessel violating a nation's sovereignty.

Way ahead

There are quite a few items in "long-range tracking," in various stages of funding and development. We have submitted a proposal to the International Maritime Organization (IMO) that would allow coastal states to poll, at their own expense, information on vessels transiting within 2000 nautical miles (NM) of their coastline. This proposal is currently being considered by IMO member nations.

In the short-term the plan is to greatly expand AIS (automatic information system). This internationally mandated system consists of a vessel mounted VHF-FM transceiver and shore stations. It was originally conceived as a collision avoidance system, and it provides basic vessel information as well as global positioning system (GPS) position. Since 11 September 2001, AIS has become a key piece of global maritime awareness. We hope to field a nation-wide AIS network that fully covers our coastline and waterways. This data will be imported into our COP and shared with our partners.

There is a need to establish an education program responsive to present and future homeland security strategy challenges. Admiral Thomas Collins, Commandant of the U.S. Coast Guard, stresses the importance of this advanced education program within DHS, and that it must consist of a "new curricula that acknowledge the fundamental changes in the global security environment and that place a high value on the need for interdisciplinary study, the new "J"ointness, or joint with a big 'J'."

While the threat of terrorism has been the catalyst to concentrate our efforts on MDA, awareness of the global maritime environment serves all those with maritime interests. With continued globalization, events in almost any port could have an impact here at home.

Conclusion

There is a very real need, and it is in everyone's best interest, to establish a maritime security regime to codify our cooperative relationships to thwart those who traffic in drugs, people, crime, and terror. Ultimately, we seek to coordinate, synchronize, and integrate our efforts to attain a safer, more secure, and more open maritime environment for all legitimate users.

About the author:

Rear Admiral R. Dennis Sirois is the Assistant Commandant for Operations. His responsibilities include management oversight of a wide range of Coast Guard programs essential to public safety and national and homeland security. His previous assignment was as Director of Joint Interagency Task Force (JIATF) South, where he led a joint, interagency, and international team representing 11 countries that conducted counter narco-trafficking operations. Prior to JIATF South, RADM Sirois served as Director of Reserve and Training, and was a member of the Secretary of Defense Reserve Forces Policy Board, the Board of Trustees of the Coast Guard Academy, and Chairman of the Commandant's Leadership Advisory Council. His first flag officer assignment was as Staff Director of the President's Interagency Task Force on Roles and Missions of the U. S. Coast Guard. RADM Sirois' operational career includes service as: Chief of Staff to Commander, Coast Guard Pacific Area; and Chief of Operations and Director, Coast Guard Auxiliary, 14th Coast Guard District, Honolulu, Hawaii. His six afloat assignments include commands of four Coast Guard Cutters: JARVIS, CONFIDENCE, BITTERSWEET, and CAPE HENLOPEN. Staff assignments include: Deputy Director, International Affairs, Office of the Commandant; Coast Guard Liaison to the Chief of Naval Operations; and as assistant professor of physics at the Coast Guard Academy. RADM Sirois graduated from the U.S. Coast Guard Academy and holds advanced degrees from Wesleyan University, Rennsaelear Polytechnic Institute, and the U.S. Naval War College.

Comprehensive Perimeter Security: Merging the Border Patrol and the Coast Guard

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Introduction

Throughout history, Americans have preferred to fight wars globally and are unaccustomed to the idea of physically protecting the continent. In fact, prior to 11 September 2001, the focus of the U.S. armed forces was on projecting an overseas presence and developing its warfighting missions, with the continental United States regarded as a rear area. The lingering effect of this strategy rendered homeland security an abstract concept to most. The current overseer of homeland security responsibilities, the Department of Homeland Security (DHS), lacks full maturity in policy and organizational management. Consequently, DHS is a reactive rather than proactive entity.

In order to move DHS toward maturity and the credibility that comes with it, the department must demonstrate to the American public that homeland security is happening now, rather than assuring them that it will happen in the future. Successful homeland security requires an extreme shift in the way the federal government is organized and in how it can meet its protective responsibilities under the Constitution. The inclusion of the U.S. Border Patrol as a land component of the U.S. Coast Guard would provide unity of command and a resultant unity of effort necessary for securing the nation's perimeter.[1]

An Obvious Step

DHS does not have the luxury of fifty years to develop command presence and rapport with the American public. A pragmatic, tangible first step is missing from the current reorganization. Effective management of homeland security begins with weaving together each element of the department in a complementary fashion. A logical place to start is by merging the Coast Guard and the Border Patrol, rather than leveraging efforts of the two–as leveraging is used merely to facilitate management of specific issues between organizations to produce mutual benefit, rather than for agency management. Reorganization of DHS is not a new idea. Even before DHS's creation, future Secretary of Homeland Security Tom Ridge broached the subject in the form of a white paper entitled, "The Department of Homeland Security: A Challenge in Organizing and Implementing Change," which was submitted to the White House in late 2001. It was promptly buried given the weak case it made for the status quo.[2]

Economy of force became one of the strategic issues looming over the horizon for DHS. Combining the Coast Guard and Border Patrol would create an economy of force by forming a littoral/linear perimeter boundary that seamlessly transitions between land borders and coastal borders, including the United States exclusive economic zone. The proposed relationship between the Coast Guard and Border Patrol can be likened to the relationship within the Department of the Navy between the Navy and Marine Corps in terms of land and sea components, though it would not be quite identical.

Because the U.S. government tends to react to problem areas by reorganizing departments and bureaus in response to negative public feeling on the issue at hand, DHS is at risk of transposing old habits into new bad habits which homeland security can ill afford. Furthermore, the challenges of transformation are expected to take years to resolve. Nor in an analogous situation has the Department of Energy managed to create a clear energy policy in thirty years of existence. Two of the three most urgent needs named in 2002 are still just as imperative today: making DHS effective and coordinating outside jurisdiction activities. In addition to effectively presenting DHS's best foot forward to the American public, a merger such as this would preposition the department to manage perimeter homeland security proactively as well as reactively, by providing improved synergy in border law enforcement organization, planning, and execution. Consolidated management of entry into the United States in one single government agency makes sense for the war on terror.[3]

Commissioning as a Mechanism of Responsibility

In November 2002, Congress enacted legislation to create DHS and realigned both the Coast Guard and the Border Patrol under this new department. However, the Coast Guard was one of only two agencies (along with the Secret Service) that transferred in its entirety.

Interestingly, the Coast Guard is organized and commissioned as a military Service, in spite of its practical standing as a federal law enforcement agency. A report from the Brookings Institution pointed to the many important non-homeland security functions the Coast Guard performs, and the impracticality and undesirability of an internal reorganization. "The Coast Guard's heavy reliance on expensive dual capable equipment, the maritime training which is also a dual function and the need for unity of command on the seas and waterways suggest its essential integrity needs to be preserved so it can respond to the new homeland security priority," the report noted. Comparatively, the Border Patrol requires "restructuring," although the move provided an "opportunity to tackle longstanding management deficiencies" in that agency.[4]

Though many civilian law enforcement agencies, federal or otherwise, have assumed a military frame of reference and some have claimed positive results, the fact remains that civilian law enforcement agencies lack the inherent responsibility and accountability in a commissioned chain of command. The chain of command provides a proven mechanism for leadership to give a lawful direct order to subordinates, and then hold them responsible and accountable for their actions and decisions. Both of these distinctions draw legitimacy from the Uniform Code of Military Justice (UCMJ) or the Congressional Code of Military Criminal Law, codes to which civilian law enforcement agencies are not held. By promising to uphold the regulations of the UCMJ, the serviceman submits him/herself to the authority of Congress through the officers appointed to command them. The UCMJ literally installs the chain of command as the vehicle for responsibility for one's subordinates, and enforces that responsibility with criminal law. By virtue of this, it also installs unity of command. Civilian law enforcement agencies simply lack this mechanism, one which the Coast Guard brings to the table.

Agency Comparisons

The Coast Guard is a multi-mission, maritime Service and one of the nation's five armed Services. Its mission is to protect the public, the environment, and U.S. economic interests through protecting the nation's ports (currently 361 seaports) and waterways, along the coast, on international waters, or in any maritime region as required to affect national security. Coast Guard personnel numbers include 39,000 active duty; 7,800 selected reservists; and 34,000 auxiliarists who cover 3.4 million square miles of exclusive economic zones, and 95,000 miles of coastline.[5] The Service is "simultaneously and at all times both an armed force of the United States (14 U.S. Code 1) and a law enforcement agency (14 U.S. Code 89). The commandant reports directly to the Secretary of DHS. Congressional oversight for the Coast Guard is provided by the Senate Commerce, Science, and Transportation Committee and the House Transportation and Infrastructure Committee.[6]

The Coast Guard has built a strong interrelationship with the American public as well as seagoing foreign nationals. This is due in part to its reputation of being run with fairness and openness, and in part to its practices of preserving life first and foremost, even before administering the rule of law. Coast Guardsmen serve as both federal law enforcement officers and as naval augmentation forces in times of war. Additionally, the Coast Guard is the only DHS component included in the intelligence community.

The Border Patrol's primary mission is "detection and apprehension of illegal aliens and smugglers of aliens at or near the land border." The Border Patrol's areas of responsibility are "the 6,000 miles of international land border with Mexico and Canada, and 2,000 miles of coastal waters surrounding the Florida peninsula and the island of Puerto Rico." This is managed with a force of 9,500 agents. The Border Patrol conducts border control activities from the decks of marine craft (88 vessels of various sizes) along U.S. and Puerto Rican coastal waterways and common interior waterways between the U.S. and Canada, and also maintains special operations components at its headquarters. Congressional oversight for the Border Patrol is handled by the Senate and House Judiciary Committees.[7]

The Argument to Merge

During the creation of the new Department of Homeland Security, merging agencies feared that "duties not related to terrorism would receive shorter shrift if they were merged into an entity whose primary task will be to prevent terrorists and weapons" from breaching the U.S. security apparatus.[8] Like the Coast Guard, the Border Patrol engages in both policing and homeland security missions ranging from interdicting drug and human smugglers to inspecting cargo. As is also the case with land-based criminals, smugglers of

illegal immigrants often use vessels that are unsafe and inhumane. Under these conditions, many Coast Guard interdiction missions can rapidly transition to search and rescue missions and/or humanitarian aid missions.[9] Likewise, the Border Patrol is often in the position to render humanitarian assistance to illegal immigrants during patrols due to the dangerous conditions imposed on the human cargo by the smuggler.

Both the Coast Guard and the Border Patrol enforce and reside in the jurisdiction of federal law enforcement. The Border Patrol is only loosely defined as an agency, and even less so since the establishment of the Homeland Security Act in which it was absorbed into the Bureau of Customs and Border Protection. In contrast, the Coast Guard is a commissioned, stand alone, federal law enforcement agency, with the exception of the instance of Congressionally declared war. In that case, the Coast Guard laterally transfers certain assets to the Department of Defense (DOD) at which time they become homeland defense assets. Because the Border Patrol is by nature protective, it stands to reason that it should make this transfer with the Coast Guard to the DOD in times of declared war. In what would essentially be a transfer of command, the Border Patrol would need to be a commissioned Service in order to execute the transfer. This would merge assets for economy of force in homeland security and homeland defense.

Words Mean Things: Homeland Security vice Homeland Defense

Standardized definitions amongst the interagency is not a trivial pursuit. The term "homeland defense" is not interchangeable with "homeland security." A useful visualization of the difference between homeland security and homeland defense has been used by General Eberhart, Commander, U.S. Northern Command, whose perspective of homeland defense is: "Let all of our games be away games."

Homeland defense is a DOD mission. It is important to note that to DOD "homeland security" connotes federal law enforcement, whereas "homeland defense" denotes a military mission executed during war. As of yet, there is neither a singular, official DOD definition of "homeland security" nor one of "homeland defense," but there are draft definitions currently circulating: homeland defense is the "protection of U.S. territory, sovereignty, domestic population, and critical infrastructure against external threats and aggression," whereas homeland security is the "preparation for, prevention of, deterrence of, preemption of, defense against, and response to threats and aggressions directed towards U.S. territory, sovereignty, domestic population, and infrastructure; as well as crisis management, consequence management, and other domestic civil support." DOD supports DHS in specific homeland security missions, but does not have homeland security as a primary mission.[10]

The act of preparation itself is a primary goal of DHS and therefore one of its missions. When this is walked through the process of mission analysis, specified and implied tasks fall to civilians as the main players involved in preparation, and not the military. In fact, the National Strategy for Homeland Security[11] clearly designates DHS as the lead federal agency (LFA) for crisis management, consequence management (more recently re-named incident management), and civil support. When civilian agencies take the role of LFA, the agencies must submit requests for assistance to formally elicit any other federal agency's support. This is the mechanism by which "who pays for what" is decided. If and when an agency shows up to an event uninvited, that agency must use funds from its own budget. On the other hand, when the LFA invites an agency, the LFA funds that agency's participation.

In the context of the 19th Century Posse Comitatus Act and the phasing out of the Continental Army Command in 1973, DOD has engaged in a homeland security support mission through the construct of civil support missions without actually being the LFA.[12] These civil support missions have explicit enablers, such as that civil resources are applied first in meeting requirements of civil authorities, DOD resources are provided only when response or recovery requirements are beyond the capabilities of civil authorities, and specialized DOD capabilities must be utilized efficiently.[13] Because these enablers essentially relieve DOD from these missions unless specifically asked to participate, and because they force command of the missions upon civilian agencies, DOD remains a homeland defense—not homeland security—asset.[14] The Homeland Security Act formally named DHS as the lead for homeland security, and directs DOD civil support missions to feed directly into DHS capabilities. DOD retains the lead for homeland defense.

Unity of Command Goes to Unity of Effort

DHS was created by Congress as the first step to install unity of command in homeland security. Analysts have identified the need for improved communication and information sharing between federal agencies, particularly those with similar missions.[15] This is also known as unity of effort or economy of force. Unity of effort cannot effectively be realized without unity of command. But it is unity of effort that remains vital to effective homeland security.[16]

DHS was "the answer" for installing cabinet-level homeland security responsibility and accountability, and it is a first step to unity of command. It was expected to fill the need for improved communication between the intelligence agencies and the proper dissemination of information. Further, as the General Accounting Office reported in January 2003, "DHS must effectively integrate disparate agencies and activities into a cohesive organization to achieve the synergy for providing better homeland security against terrorism."[17] DHS already has a defined common goal stated in its mission, which equates to the national political purposes and the broad strategic objectives that flow from them.[18]

Benefits from the Merger

There are many tangible benefits that could be realized from merging the Border Patrol and the Coast Guard:

Reducing Redundancy: The redundancy of mission and assets between the Coast Guard and the Border Patrol could be reorganized, and redistributed to areas more in need of patrol, otherwise know as economy of force/unity of effort. One of several Coast Guard missions is to halt the flow of illegal drugs, aliens, and contraband into the United States through maritime routes. However, the Border Patrol owns its own maritime equipment and separately patrols 2,000 miles of coastal waters surrounding the Florida Peninsula and the island of Puerto Rico with the same mission. The Coast Guard has participated in many similar operations as conducted by the Border Patrol regarding alien migrant interdiction operations (AMIO) particularly in the Caribbean and Central Pacific regions.

Guarding the Borders: The perimeter of the United States does not need to be physically guarded along its entirety on a 24/7 basis. Rather, it needs to be managed in the same manner of prioritization of resources, as are the maritime borders. Border Patrol agents are law enforcement officers who enforce federal law at land borders just as the Coast Guard does on the high seas. By virtue of this fact, they are trained to subdue suspects rather than to kill first and ask questions later. In contrast, infantry soldiers are instructed to make every effort to kill the target. This represents a disconnect in culture, training, and practice between civilian law enforcement officers and soldiers, and is the inherent flaw in temporarily augmenting the Border Patrol with infantry forces (such as was done with Joint Task Force-6), either active or reserve.

The *Posse Comitatus* Act constrains neither the Border Patrol nor the Coast Guard because they are law enforcement agencies. These two organizations could reasonably merge with much less of a cultural divide than there would be with any simple DOD augmentation, all while providing the synergy lacking elsewhere in DHS. It would also free the Customs Service from immigrant management at the border, provide more manpower for other inspection needs, and allow the current iteration of the Immigration and Naturalization Service to focus on visa enforcement.[19]

Training: There are at least two levels of training needed for Homeland Security: an upper planning level and a lower execution level. Though DHS does not have a good working model on which to base a comprehensive training program, it is just as clear that DOD specific training will not meet the needs of DHS training. At the DHS executive level the TOP-OFF exercises have been the primary means of training. This serves a good purpose for the highest echelon but does little to train the DHS regular personnel. Even forces provided for homeland security missions by the Army have been ill trained for the mission.[20]

Because Border Patrol agents are trained as law enforcement officers, they are accustomed to interacting with suspects and assessing the need for force in an altercation, rather than taking the purely defensive positions germane to soldiers. Training, something the Border Patrol is currently lacking, would also be standardized in accordance with the Coast Guard's already well-established training program.[21] Added value incentives include saving dollars and increasing "jointness" across the interagency through centralized law enforcement training.

Personnel: The Border Patrol manning is understaffed for its mission. The Coast Guard could absorb the Border Patrol's 9,500 agents by translating current civilian job descriptions into military billets, as well as augmentation where needed. Indeed, in recent times, Border Patrol agents have left the agency in droves–and faster than they can be replaced.[22] By subjecting the Border Patrol to the UCMJ, personnel manning problems would improve due to the ability to direct agents to remote stations, rather than depending on civilians to choose to take a far-flung assignment. Billets could be based along the lines of education, training, and experience (i.e., commissioned officers as managers, warrant officers as specialists, and enlisted members as technicians or operators). This would also standardize personnel issues such as recruitment and retention—as well as all the administrative functions required, thus reducing duplication—as they would be absorbed into armed Service processes. The Border Patrol could then grow a reserve and auxiliary force to augment itself in times of elevated threat. Additionally, Border Patrol agents would benefit from tour rotations, training methods, education, and health benefits. As an added value for the Border Patrol, it would benefit from the Coast Guard's reputation of being fair and open, and the credibility that comes resultant from direct Congressional oversight.

Conclusion

Though the Coast Guard is primarily a maritime agency, its mission is not always carried out at sea. This is conversely true for the Border Patrol. Weaving these complementary agencies into one unified commissioned Service under DHS could serve to close the gaps and seams. Inserting the Border Patrol into the Coast Guard as a land component would reduce mission and personnel redundancy, improve border security, increase training and manning levels, and in the end provide the DHS Secretary with a unified method for assessing border security. Contrary to lessening the importance of the other, non-homeland security missions, a merger such as this would make it obvious where the piecemeal perimeter security missions should congeal. The economy of force and synergy that could emerge from the resultant combination, especially in the bringing about a more seamless perimeter security management and eliminating duplicative missions, would be well worth the effort. The merged Border Patrol and Coast Guard would have a direct, unified voice to the Secretary of Homeland Security, and would essentially give the Secretary the ability to make an accurate assessment of the current level of national perimeter security management at any given time.

Notes

[1] See Tomisek, Col. Steven J, USMC, "Homeland Security: The New Role for Defense," The Journal of Homeland Security, April 2002; Dobbs, CDR Michael, USN, "Establishing a CINC for Homeland Security," The Journal of Homeland Security, October 2001; and Daalder, Ivo H., et al, "Assessing the Department of Homeland Security," The Brookings Institution, July 2002.

[2] Daalder, Ivo H. and I.M. Destler. "Advisors, Czars and Councils: Organizing for Homeland Security." The National Interest, Summer 2002.

[3] See Kaufman, Herbert, *Red Tape: It's Origins, Uses, and Abuses*, Washington, D.C.: The Brookings Institution, 1977; General Accounting Office, GAO-03-902T, Statement of Richard M. Stana, Director Homeland Security and Justice Issues, Testimony Before the Subcommittee on Infrastructure and Border Security, Select Committee on Homeland Security House of Representatives. *"Challenges Facing the Department of Homeland Security in Balancing its Border Security and Trade Facilitation Missions,"* 16 June 2003; Daalder, Ivo H. and I.M. Destler, "Plan to Shield Nation Needs Help," Newsday, 12 June 2002; and DeCorla-Souza, Kevin F., "The Department of Homeland Security: A Challenge in Organizing and Implementing Change," no date.

[4] Daalder, Ivo H., et al. "Assessing the Department of Homeland Security," The Brookings Institution, July 2002.

[5] Online at http://www.uscg.mil/news/Cg101/CG101/pages/101_17.htm.

[6] Admiral Thomas H. Collins, *"This Is Our Time,"* State of the Coast Guard Address, 26 March 2003; and U.S. Coast Guard Maritime Strategy for Homeland Security, *"The Coast Guard's Roles in Homeland Security,"* 23 December 2002.

[7] See http://www.immigration.gov/graphics/shared/lawenfor/bpatrol/overview.htm.

[8] Daalder, Ivo H. and I.M. Destler. "Advisors, Czars and Councils: Organizing for Homeland Security," The National Interest, Summer 2002.

[9] Online at http://www.uscg.mil/news/Cg101/CG101/pages/101_15.htm.

[10] Tomisek, Col. Steven J, USMC, "Homeland Security: The New Role for Defense," The Journal of Homeland Security, April 2002; Army Modernization Plan 2002, Annex H: Homeland Security, Pg. VI-3JP 1-02; and Department of Defense Dictionary of Military and Associated Terms, 5 June 2003.

[11] Online at http://www.whitehouse.gov/homeland/book/nat_strat_hls.pdf.

[12] U.S.Code Title 18, Part I, Chapter 67, Sec. 1385 described the use of the Army and Air Force: "Whoever, except in cases and under circumstances expressly authorized by the Constitution or Act of Congress, willfully uses any part of the Army or the Air Force as a *posse comitatus* or otherwise to execute the laws shall be fined under this title or imprisoned not more than two years, or both."

[13] Department of Defense Directive 3025.1, Military Support to Civil Authorities, 15 January 1993.

[14] Currently, there are three relevant doctrinal publications under either revision or development. They are: *JP 3-01.1 Aerospace Defense of North America*, which is being transposed into *JP 3-26.1 Homeland Defense*; *JP 3-07.7 Joint Tactics Techniques and Procedures for Domestic Support Operations* to *JP 3-26.2 Civil Support*; and *JP 3-26 Homeland Security*. Additionally, any emerging joint doctrine would be specific to Joint Task Force operations and participating forces (i.e. JTF-6). This implies the participating forces are under joint command for an operation for a specified period of time rather than indefinitely. Moreover, emerging joint doctrine serves little purpose until it is signed.

[15] U.S. General Accounting Office, *"Major Management Challenges and Program Risks: Department of Homeland Security,"* GAO-03-102, Washington, D.C.: January 1, 2003; *"Border Security: New Policies and Increased Interagency Coordination Needed to Improve Visa Process,"* GAO-03-1013T, Washington, D.C.: July 15, 2003; *"Transportation Security: Federal Action Needed to Enhance Security Efforts,"* GAO-03-1154T, Washington, D.C.: September 9, 2003; *"Homeland Security: Information Sharing Responsibilities, Challenges, and Key Management Issues,"* GAO-03-1165T, Washington, D.C.: September 17, 2003; and *"Homeland Security: Efforts to Improve Information Sharing Need to Be Strengthened,"* GAO-03-760, Washington, D.C.: August 27, 2003.

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Maritime Security for our Nation's Democratic Process

RADM David P. Pekoske
U.S. Coast Guard

In keeping with our long standing role in securing the homeland, the United States Coast Guard joined forces with other federal, state, and local agencies to preserve our Nation's democratic process, protect American citizens and visitors, prevent economic disruption, and instill public confidence during this past summer's Democratic and Republican National Conventions. These being the first two political conventions since 11 September 2001 (9/11), and with Spain's pre-election attack clearly in everyone's mind, unprecedented security and interagency cooperation were necessary to protect and preserve the political process. Working with the United States Secret Service (USSS), which was designated the Lead Federal Agency for these two National Special Security Events (NSSE), the Coast Guard effectively used its unique role as a military Service, law enforcement agency, regulatory agency, and member of the national foreign intelligence community to fill several important roles that contributed to the highly successful execution of the multi-pronged security plans.

As Commander of the First Coast Guard District, responsible for New England, Eastern New York, and Northern New Jersey, I served as the senior Coast Guard representative on both conventions' Executive Steering Committees (ESC). The ESC were responsible for the interagency planning effort that created each convention's overall security plan. Our active participation on the two ESC led to a greatly expanded role for the Coast Guard that not only included our traditional role as the lead agency for maritime security, but also included participation in 13 of the 18 major convention security subcommittees. Proactive participation in these 13 subcommittees eventually led the Coast Guard to perform the rotary wing aerial intercept mission for low-altitude, slow-moving air threats; provide armed helicopter patrols under USSS tactical control for both land and water based convention venues; plan for protectee evacuation for several hundred members of Congress and the Executive Branch; conduct intelligence collection, coordination, and analysis; and pre-position Level-A First Responder Teams at the major venue sites. Our engagement with the USSS and partner agencies at all levels of planning was instrumental in identifying the most effective use of the Coast Guard's core capabilities during the two Conventions.

With two major similar operations occurring within five weeks of each other, we were able to identify many lessons during the earlier Democratic Convention and immediately apply them to the planning for the Republican Convention. Several of the "need improvement" lessons were "learned" quickly and led to critical changes to New York's maritime security plan, while all the lessons we identified as "working well" in Boston were repeated in New York as tried-and-true concepts. Through these two major NSSE we have identified hundreds of lessons. The main purpose of this article is to discuss a few of those lessons that I believe are most applicable across different organizations and security events.

"PREPARATION EQUALS PERFORMANCE"

As an avid runner I know first hand that if I want to perform at a peak level in a race, I'd better start preparing for that race well in advance. That is just as true for a major event. One of the primary reasons the interagency groups planning the conventions were so successful was that each agency began preparing for the conventions as soon as the venue cities were announced. For the Coast Guard, it took every bit of those 18 months to draw plans together, identify the resource and logistics requirements, and put everything in place. In both cities we needed to bring in enough resources to increase the number of boat, cutter, and air patrols by over 2,000 percent, provide enhanced emergency response capabilities, vastly expand our intelligence and command and control staffs, and provide the logistics infrastructure to keep everything running smoothly. In Boston, this required over 500 people to be brought in from other operational units, and in New York it required over 1,000 augmenting personnel in addition to the cutters, boats, and aircraft. For an organization of just 40,000 active duty and 8,000 reserve military personnel, these events were major operations.

In addition to starting early, we knew it was important to identify the key event planners at the very beginning and dedicate them to the convention. That proved difficult due to the Coast Guard's tempo of operations with Operation IRAQI FREEDOM, the increased homeland security threat conditions and resultant

increase in the maritime security conditions in Boston and New York, and the implementation of the new Maritime Transportation Security Act. Our convention security planning work was a collateral duty for the mid-grade and senior officers at our operational commands and regional staffs. Throughout Boston and New York, we were only able to dedicate three officers during the 18-month planning period. While everything came together in the end, a dedicated planning team made up of the right mix of personnel would have lessened the angst during the few months leading up to the conventions. The USSS concept of bringing in a trained dedicated security-planning team for an NSSE, that both owns and runs the planning process while relying on the expertise of the locally assigned agents, is a well-proven model that should be considered by other agencies, including the Coast Guard.

The stronger interagency partnerships and detailed tactical plans developed during the 18-month planning effort will pay dividends in the Ports of Boston and New York for years to come. In the summer of 2000, the Coast Guard and dozens of other federal, state, and local agencies executed a massive plan for the combined OpSail 2000 and International Naval Review NSSE after a similar 18-month planning effort. While that event went well by all accounts, it was the massive interagency response following 9/11 that truly showed how critically important those detailed tactical plans and well-forged interagency relationships are when faced with an immense unplanned security response operation. With the frequent rotation of personnel within the Coast Guard and the other government agencies, it is vital that these relationships and tactical plans be renewed periodically. The Ports of Boston and New York are now well prepared to meet the challenges of a large security response operation, be it planned or unplanned.

"PROCESS MATTERS AND NIMS WORKS"

Just as important as getting an early start on the planning process is ensuring that one is using the right planning process. Both of my USCG Federal Maritime Security Coordinators in New York and Boston employed the National Incident Management System (NIMS) while planning and executing the maritime security component for the conventions. Homeland Security Presidential Directive 5, released in February 2003, mandated NIMS as the Federal Government's system for planning and executing large-scale operations or responses effective no later than October 2004. NIMS consists of the incident command system (ICS), multiagency coordination system/center (MACC), and the unified command concept that the Coast Guard has effectively incorporated over the last decade into all our major operations from oil spills and hazmat responses to marine events, security and law enforcement operations, and large responses to natural disasters.

To be truly effective in employing NIMS one needs to have highly trained personnel in all the key positions. Even though we have used ICS for a number of years within the Coast Guard, we recognized that we did not have enough local depth in ICS at Boston or New York to fully and effectively employ the system. For the execution part of both conventions, we brought in an Incident Management Augmentation Team (IMAT) composed of personnel from throughout the country who were highly trained and experienced in ICS. The IMAT personnel filled key positions alongside the senior local personnel and ensured that the NIMS process stayed on track. A specialized IMAT team is critical to the success of any large-scale multiagency or multi-unit operation.

NIMS enabled total visibility of resources, authorities, communication plans, response plans, and priorities between all of the agencies involved in the maritime security component. Each agency complemented the overall security effort. There was no inefficient use of resources or duplication of effort. Employing NIMS in the maritime security component enabled the federal agencies not familiar with ICS, MACC, and the unified command concept, to see how it worked and the benefits the system brings. The agencies gained valuable insight into how to employ the now mandated NIMS for future operations or responses. In short, NIMS works.

"SECTORS"

On 9/11, the Coast Guard had two separate operational commanders in almost every major port. The Commanding Officer of the Marine Safety Office was responsible for marine safety, port security, and environmental response. The other was the Group Commander responsible for search and rescue, law enforcement, ice operations, aids to navigation, and defense readiness. After the events of 9/11, each of the Coast Guard's port level commands greatly expanded their port security, law enforcement, and defense readiness roles. Those actions clearly

highlighted the need to find a new way to conduct Coast Guard business at the port level. In a message to the men and women of the Coast Guard, the Commandant, Admiral Thomas Collins, wrote: "To strengthen unity of command in our port, waterway, and coastal areas of operation, I have directed that new integrated operational field units be established throughout the Coast Guard. This is in keeping with the expressed intent of improving readiness in my Commandant's Direction. These new commands - to be called Sectors - will be better matched to current mission challenges, will better align our field operational capabilities, and will improve our mission performance. This initiative will best position the Coast Guard to support our Secretary in achieving unity of purpose as 'One Team for One Fight'."

Coast Guard units in New York got a jump on creating a single port level command in 1997 when they relocated from the Governor's Island base to Staten Island. The separate Group, Marine Safety/Inspection Office, and Vessel Traffic Service commands were combined into a prototype "Activity" organization that was analogous to a Sector. The success of the New York prototype gave the Commandant great confidence to move forward with the plan to create Sector organizations throughout all the ports. New York's recent history of highly successful operations such as Operation Sail 2000 and the International Naval Review, the Hurricane Floyd floods in central New Jersey, American Airlines Flight 587 crash, several heightened maritime security operations, and the tremendous response to the 9/11 attacks on the World Trade Center validate the "One Team for One Fight" organizational concept at the port level. The planning and execution of the maritime security component to the Republican National Convention security plan is another unqualified success to add to the list. The complexity of the interagency coordination and planning for that event would have been much more complicated if there were still separate Coast Guard operational commanders in the port, each responsible for part of the overall maritime security plan.

At the start of the planning process for the Democratic National Convention in Boston, there was no combined port level organization. Although collocated on the same base, the Group office was separate and distinct from the marine safety office. Although the two offices have a history of working together on cross-programmatic issues such as the movement of liquefied natural gas carriers through Boston Harbor, the convention effort required that a unified command approach be taken. The planning and execution of the Democratic National Convention truly enabled our Boston units to operate as a single command. The success of the joint organization was one of the primary reasons that led Secretary Ridge to announce the permanent establishment of Coast Guard Sector Boston just two weeks after the end of the convention.

The Coast Guard will transition to Sectors throughout the Nation over the next two years. The successes of Boston and New York during the conventions are clear indicators that the Sector organizational construct is the right path for the Coast Guard.

"MARITIME DOMAIN AWARENESS (MDA)"

The Coast Guard's plan to fulfill its maritime security role is outlined in the Service's Maritime Homeland Security Strategy. The strategy incorporates the Coast Guard's unique authorities, capabilities, and partnerships into a multiagency, layered operation to reduce maritime security risks through the principles of awareness, prevention, protection, and response. Although the principle of "awareness" has been around since the Coast Guard was known as the Revenue Cutter Service back in 1790, it is receiving a new focus in the aftermath of 9/11. Awareness is the effective knowledge of all activities, forces, and elements that could threaten the safety, security, economy, or environment of the United States and its population. Awareness is a critical precursor to prevention, protection, and response. Enhancing MDA is the first, and arguably the most important, pillar in our Maritime Homeland Security Strategy. As a start the Coast Guard is:

- Instituting measures to increase the awareness about people, vessels, and cargo within the maritime domain by increasing our intelligence collection and analytical capabilities through establishing maritime intelligence fusion centers and field intelligence support teams.

- Creating a single shared maritime common operational picture (COP) for U.S. ports and maritime approaches using a combination of sensors and data sources.

- Creating a layered defense extending from our inner harbors to the high seas. The layered defense employs the men and women working at our Sector

offices, specialized deployable maritime security teams, more capable inshore security boats, and the Deepwater project deliverables, which include: new offshore multi-mission cutters, new patrol boats, new fixed wing aircraft, and a very robust command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) infrastructure between the shore based command centers and the afloat and airborne patrol assets.

- Enforcing new Maritime Transportation Security Act (MTSA) regulations that require waterfront facilities and commercial vessels to create and abide by individual security plans, and quickly report transportation security incidents or suspicious behavior to the Coast Guard.

- Amending our regulations to require vessels to provide 96-hour advance notice of arrival at U.S. ports.

- Conducting port security assessments in the Nation's economic and strategic ports.

The conventions in Boston and New York presented an opportunity to employ new concepts for enhancing MDA. We seized the opportunity to fully integrate the Coast Guard into the regional intelligence infrastructure and to improve our sensors, sensor processing, and command and control capabilities in our port level command centers through installation of the Hawkeye system.

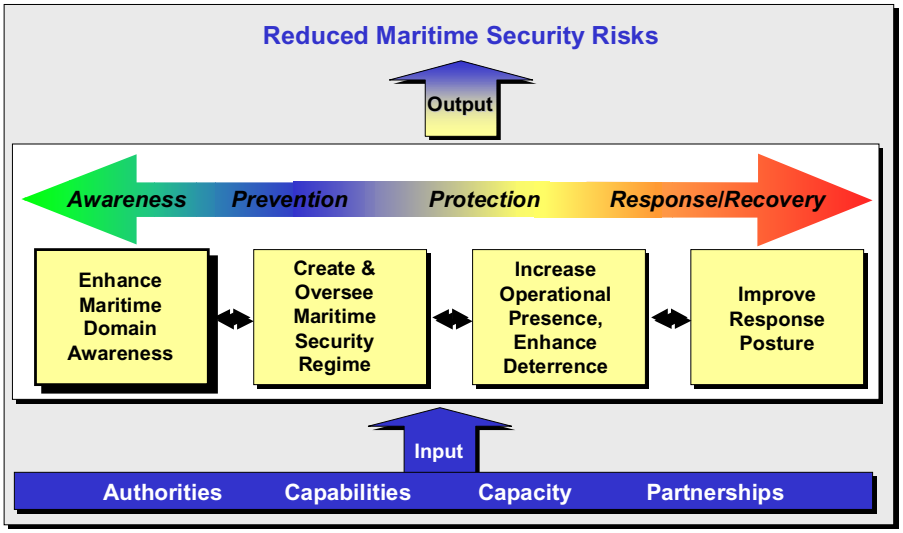
MDA - Intelligence

As a new member of the National Foreign Intelligence Community, the Coast Guard is rapidly growing an organic intelligence capability. In both Boston and New York we have created new field intelligence support teams (FIST) to collect intelligence on all maritime threats, exchange information through relationships with government and private entities, conduct first order analysis, and disseminate tactical and operational intelligence directly to port level commanders, as well as other Coast Guard units and government agencies. The FIST currently have a small number of permanently assigned billets. Recognizing that we needed a robust intelligence program for the conventions with 24/7 coverage at the Joint Terrorism Task Force (JTTF), Maritime Unified Command Post, and local agency intelligence nodes, we deployed additional analysts and Coast Guard Investigative Service Agents into the local intelligence infrastructure in each city. This proved a smart investment as it improved our human intelligence (HUMINT) collection capability, increased our participation in the JTTF and Maritime Unified Command Center, and enabled decision makers to be better informed with respect to asset allocation and mission focus. The JTTF remains the key intelligence center in each city.

MDA - Hawkeye

An effective sensor suite and core command and control (C2) system that can develop and share the COP with all operational units and command centers is the foundation for MDA. New York's vessel traffic service provided a fairly robust set of sensors throughout New York Harbor, but they were optimized for vessel traffic safety and not for port security. Prior to this summer, Boston did not have any sensors deployed to enhance MDA. To overcome those shortfalls we installed security focused sensors in key port areas and fed them into the

Maritime Security Strategy



Homeland Security

Coast Guard's prototype Hawkeye system that was installed prior to the conventions. Hawkeye is a Global Command and Control System - Maritime (GCCS-M) based application that provides a real-time common operational picture for all maritime traffic and events within a port. Hawkeye operators used cameras, radars, blue-force tracking transponders, and automatic identification system (AIS) feeds to develop a complete COP that was automatically shared with the higher echelon commands at the Coast Guard's District, Atlantic Area, and headquarters levels–as well as with the field commanders assigned as task unit leaders on our small cutters underway in the harbor and at local law enforcement agency command posts. We proved that the system greatly improves MDA for everyone with visibility to the COP. We also identified that we need more types of sensors in critical areas to address additional threats, the ability to share the COP with all the patrol assets on the waterway (not just the cutters), improved automated correlation software, permanent well-trained Hawkeye operators, and redesigned command centers for maritime security focused around multiagency response efforts.

MDA - Layered Defense: DEEPWATER

A layered defense is the key to a successful security operation. Many people saw the convention security mission as strictly an inner harbor operation. From "day one" we did not take that approach. We focused on the harbor, coastal, offshore, and on-shore components to develop a comprehensive overarching security plan for each convention. Threats in the offshore or near shore environments need to be intercepted and mitigated before reaching the main theater of operation in the inner harbor. Our plan used a combination of fixed and rotary wing aircraft, medium endurance cutters, patrol boats, multi-mission aids to navigation cutters, small boats, specialized security and hazmat teams, and command and control personnel to execute the operational mission. The planning and execution of the security plan for the convention highlighted again the need for interconnectivity between our aircraft, cutters, small boats, and C2 centers. It is today a significant operational limitation. Assets operating in the different environments (offshore, near shore, inshore, onshore) did not have a common system for maintaining situational awareness. We could not share imagery or the COP between all elements of the organization in real-time. The Commandant has recognized this as one of our top priorities to address. He is actively leading the Deepwater effort to recapitalize our aging high and medium endurance cutter fleets, fixed wing aviation assets, patrol boats, and C4ISR systems to address the shortfalls experienced during the conventions. Every Coast Guard mission we execute, whether it is a large operation such as security for the conventions or a major migration in the Caribbean, or to relatively small operations like our four to five cutter joint living marine resources enforcement mission on George's Bank, clearly highlight the need for better interconnectivity between our units and the need to bring Deepwater on line as soon as possible. Deepwater is an MDA sub-system.

"COMMUNICATING TO THE TOP"

Similar to the other military Services, the Coast Guard has a hierarchical structure for passing information from the deck plate level to the senior decision makers. For the conventions, as with other large operations, there were several layers of organizational structure to process information through to get it to Coast Guard Headquarters. Of course, we are rarely just providing information up the chain. Analysis of the information and intended actions often accompany the raw information so that any questions raised are immediately answered. The media does not have the organizational constraints or need to develop the analysis or future actions before hitting the airwaves. In addition, the Principal Federal Official (PFO) from the USSS, who was coordinator of security for each NSSE, had direct communications with Secretary Ridge. While that line of communication was definitely important to the overall management of the conventions by the Department of Homeland Security, it meant that any maritime issues rising to the level of the PFO needed to be briefed throughout the Coast Guard's chain much more rapidly. The timely reporting of accurate information was a vital component of the NSSE security operation. While we identified information flow as a critical process during the planning evolution for the conventions, our process required time to mature before reaching the desired levels as the conventions began in earnest. Senior operational personnel thoroughly familiar with the multiagency operational orders, normal port activities, and information needs of the chain of command must be assigned to the task of managing the information flow. For past major events, we assigned personnel with that experience level to billets exercising operational control of the mission. That left the role of information reporting to more junior personnel who did not have the

requisite skill sets. We must continue to mature the information flow process while also elevating the responsibility of information reporting to senior operational personnel well versed in the operational plan, daily port activity, and chain of command information needs.

"TIME TO LEARN"

I was extremely proud of the performance of the hundreds of men and women who came together to plan and execute the maritime component of each convention's security plan. The lessons identified during previous large security operations for OpSail 2000 and the International Naval Review, and the 9/11 response, were incorporated into the planning for both the Democratic and Republican National Conventions. Many lessons identified in July at the Democratic Convention were incorporated into the final planning efforts for the Republican Convention in August. Those lessons that indicated room for improvement were acted upon with nearly all of them showing marked results, and those lessons that we identified as having worked well in Boston were repeated in New York with the same great success. If I had to sum up our efforts at each convention into a single overarching statement it would be, "the Coast Guard and maritime security partners deployed new capabilities, implemented new technologies, and executed a concept of operations that reflected lessons learned since 9/11 and, as a result, was more ready than ever to provide a layered defense guided by improved awareness of the threats to our maritime region."

About the author:

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A Coast Guard armed helicopter conducts a security patrol over New York Harbor during the Republican National Convention Aug. 29, 2004 in New York City.

The Proliferation Security Initiative and Exercise CHOKEPOINT 04

Lt Col Michele M. Cook, U.S. Air Force
CDR John N. Leonard, U.S. Coast Guard
LT Kent G. Sieg, U.S. Coast Guard

Introduction

The United States has been a leader in responding to the growing challenge posed by the global threat of weapons of mass destruction (WMD) proliferation. On 31 May 2003, President George W. Bush announced the Proliferation Security Initiative (PSI). He cited the PSI as a positive, proactive way to prevent dual-use materials and technology transfers from becoming accessible to potential adversaries and terrorists. In September 2003, eleven nations (Australia, France, Germany, Italy, Japan, the Netherlands, Poland, Portugal, Spain, the United Kingdom, and the U.S.) met to discuss proliferation security. This global proliferation conference resulted in the publication of the *Statement of Interdiction Principles* for the PSI. The PSI and its principles are now a means by which nations can cooperate together to effect successful prevention of WMD proliferation, and interception of dual-use materials that may be used in WMD. Today over 60 nations participate in the PSI focusing in the diplomatic, intelligence, legal, and operational arenas.

In late 2003 the U.S. State Department, Office of the Secretary of Defense (OSD), and Joint Chiefs of Staff began coordinating a series of PSI exercises aimed at improving counter-proliferation policy. By design, PSI involves activities, not an organization, as most proliferation related trafficking involves dual-use components rather than actual weapons.

PSI Exercise Overview

For two weeks in November 2004, twenty nations participated in CHOKEPOINT 04, a PSI maritime interdiction training exercise conducted via a command post exercise (CPX) in several locations worldwide, followed by a one day live interdiction and boarding exercise. This was the thirteenth PSI exercise and the first US-hosted combined military and law enforcement agency effort. The U.S. Coast Guard led the exercise, held in six different venues, including a Caribbean venue hosted by Joint Interagency Task Force-South (JIATF-S), a USSOUTHCOM counter-drug command in Key West, Florida. In addition to the original eleven PSI partners, representatives from nine other nations participated or observed portions of the exercise including Argentina, Canada, Chile, Denmark, Mexico, Norway, Panama, Singapore, and Sweden.

Objectives

The exercise was designed to test maritime chokepoint interdiction operations and information sharing between PSI partner nations. The objectives of CHOKEPOINT 04 were to:

- Initiate a collaborative multilateral effort to deter or stop the proliferation of WMD;
- Improve PSI operational capabilities for both law enforcement and military;
- Explore policy and operational issues associated with multilateral law enforcement and military WMD maritime interdiction operations;
- Examine the use of bilateral boarding agreements in multilateral boarding operations;
- Support international PSI outreach efforts.

A key exercise objective was to use existing law enforcement and military operations centers to coordinate and execute short notice national and international PSI response operations. It provided the nations involved in PSI a chance to test procedures and raise issues that might be encountered during real-world events.

Structure

Exercise CHOKEPOINT 04 was conducted in two phases. Each PSI nation had the opportunity to voluntarily participate in any part of the exercise area in which they possessed vested interests, expertise, and resources. Each nation also had the opportunity to expand the scenario to exercise national objectives and procedures within the PSI framework.

In Phase I, the CPX was held over a one-week period in five of six regional venues, controlled by the Coast

Guard's Atlantic Area Headquarters (USCG LANTAREA) in Portsmouth, Virginia. Participants in the North Sea/Baltic Sea venue, Mediterranean Sea venue, Indian/Pacific Ocean venue, and North Atlantic venue each utilized the CPX format. The purpose of the CPX was to establish communications, coordination, and information sharing practices between participating countries, and to enhance the level of coordination between PSI participants.

During Phase II, an exercise seminar coordinated by USCG LANTAREA, held at Key West, Florida took place over three days that allowed participants to present debriefings on regional CPX results. Each of the five exercise venues developed a plenary session presentation regarding information sharing activities, coordinated courses of action, and challenges within their respective scenarios, and presented these briefings to the rest of the participants.

A one-day PSI field training exercise (FTX) was conducted during the second week using JIATF-S as the operations center. FTX CHOKEPOINT 04 ships and aircraft rendezvoused in the Caribbean Sea venue, established communications between participating assets, and deployed forces to intercept and search cargo containers aboard one suspect vessel, a live container ship. While listening to the FTX in real-time at JIATF-S, PSI participants discussed FTX issues from their respective areas of subject expertise, asked questions, and kept the seminar coordinator apprised of their suggested courses of action. JIATF-S operating procedures for counter drug operations are similar to those required for counter-proliferation, although legal authorities change.

PSI Exercise Scenario

PSI activities call for partner nations to monitor suspect networks that engage in the transportation of dual use WMD-related materials and technology to non-partners and terrorist groups. Various intelligence scenarios and exercise event injects were devised for PSI interaction with and briefings to senior officials in partner nations. All PSI partners were given small amounts of background information indicating that a WMD network from a threat nation was increasing its activity to inform decisions within their venues.

CHOKEPOINT 04 Phase I (CPX) began on 8 November 2004 with a several day test of information and intelligence sharing between the participating nations. French collection efforts uncovered credible information of imminent dual-use WMD material proliferation. Based upon this information, British and American maritime analysts then concluded which specific ships could potentially be carrying the materials. The exercise intelligence involved six container ships (A-F) departing from an African country suspected of proliferation, enroute to six different destinations worldwide. The first phase involved the sharing of information on five ships (A-E) between the partner nations in five regional venues. Intelligence indicated containers on board several vessels might have been transferred to other ships. During the CPX, most suspect cargo was inspected by PSI nations during port calls enroute and found to pose no threat. Information was shared with partner countries as it was developed in each venue. Each nation used existing national and international laws to execute their participation and PSI avenues to share information.

Coast Guard Cutter HARRIET LANE approaches a cargo ship suspected of carrying WMD materials during PSI exercise CHOKEPOINT 04.

Phase I culminated with the identification of the sixth vessel (F) believed to have dual-use WMD materials onboard. Intelligence indicated that Ship F had suspect dual-use WMD materials in a container deep in its cargo hold, and another on the ship's weather deck. Ship F was tracked and detected in the Caribbean Sea, and a decision was made to interdict before the ship reached a trans-shipment point in Panama or its final destination. As Phase I ended, the controllers "froze" the exercise on 13-14 November to allow PSI participants to travel to Key West and continue the exercise's second phase with an FTX and seminar.

An international boarding team led by the U.S. Coast Guard boards a cargo ship suspected of carrying WMD materials.

Interdiction Execution

Phase II (15-18 November) focused the exercise participants on discussing results of the five CPX scenarios, and on monitoring the FTX interception of suspect Ship F in the Caribbean Sea.

Coast Guard District Seven (Miami, FL) standing orders for cutters on Caribbean patrol allow for shifting tactical control (TACON) to JIATF-S for detection and monitoring of suspect vessels. JIATF-S may then task assets with operations, either to detain or board suspect vessels, and transfer TACON for interdiction to the appropriate law enforcement agency. On 17 November, south of Hispaniola, British and Dutch naval vessels, US Coast Guard cutters, and French aircraft intercepted a large commercial freighter playing the role of a Liberian-flagged cargo ship. The USCG Cutter Harriet Lane led the on-scene interdiction portion of the multinational exercise. In a true team effort the multinational assets overcame rough seas and high winds to safely board the vessel and search the suspect cargo. The boarding team discovered dual-use technology that may be used for WMD stored in the containers that had been identified by intelligence sources.

Exercise Results

Exercise CHOKEPOINT 04 concluded with a working-level seminar in which all participants briefed their lessons learned and recommendations for future PSI exercises to an audience that included senior U.S. OSD officials and flag officers from the Coast Guard, SOUTHCOM, and the UK. All agreed that the exercise provided an outstanding opportunity to test international PSI coordination, communications, agreements, and cooperation, and to refine operations procedures in a tactical scenario. The exercise resulted in numerous tangible accomplishments, including greater awareness of PSI activities throughout the U.S. military and U.S. law enforcement agencies, partner nations, and potential partners.

PSI Lessons Learned

The major lessons learned of Exercise CHOKEPOINT 04 are:

1) *Diplomatic:* Nations must work together to combat WMD proliferation, and identify rapid

communication channels between countries and leaders to facilitate rapid action.

2) *Intelligence:* Sharing intelligence between PSI partners greatly improves an individual nation's capability to successfully track, intercept, and interdict a suspect vessel.

3) *Legal:* Bilateral agreements are an integral tool for PSI operations.

4) *Operational:* Improved understanding of military and law enforcement capabilities of each PSI partner is needed to successfully interdict proliferation related shipments.

5) *Information Sharing:* Secure and non-secure communications must be exercised, and the global PSI partners must improve communications at all levels involved in the interdiction process.

6) *Command and Control:* Development of coordinated courses of action, regional areas of responsibility, and defining lead agency and supporting agency roles are necessary to improve PSI activities. Communications only venues should be developed for future PSI exercises.

7) *Technical Support:* Reach-back capability for obtaining technical expertise is critical to timely identification of dual-use WMD materials in an operational environment.

8) *Future Exercise Activities:* Proposed end-game scenarios must also be exercised, including prosecution of suspects and disposition of cargo in ports or other locations. PSI should also be expanded to encompass air and land scenarios.

9) *Information Operations:* Promote media involvement both locally and internationally; PSI adds a new tool for deterring suppliers and customers by making proliferation costly and more difficult.

10) *Partners:* PSI international outreach efforts must be enhanced to include more nations and industry outreach, which is key to establishing timely interdiction procedures.

Conclusion

PSI is an initiative that, over time, will establish an international network of counter-proliferation partnerships to prevent trade in dual-use WMD delivery systems and related materials. This was the first PSI exercise to include the U.S. law enforcement community, and one that very effectively used Department of Defense and international naval assets in a supporting role. It emphasized teamwork and information sharing not only between command levels, but also throughout all partner nations who were effectively included in the exercise. CHOKEPOINT 04 was an early "home game" that will help drive improvements in proliferation security worldwide.

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The Coast Guard Port Security Unit as a Deployable Asset in National Defense

LT Ronzelle L. Green
LT Kevin L. Richardson
U.S. Coast Guard

The PSU as a security asset

The U.S. Coast Guard is a branch of the armed forces that provides support to naval operations during times of conflict. Port security units (PSU) continue the historic Coast Guard mission of providing port and shore-side security, as well as a small boat operations force for the military. The PSU is a deployable asset that can provide an important security function within four days, and can remain deployed for an entire month without resupply. PSU conduct operations outside of the Continental United States and provide protection to key Department of Defense (DOD) assets at the termination/origination point of the sea lines of communication.

The Coast Guard's PSU included the following units: PSU 305 at Fort Eustis, Virginia; PSU 307 at St. Petersburg, Florida; PSU 308 at Gulfport, Mississippi; PSU 309 at Port Clinton, Ohio; PSU 311 at San Pedro, California; PSU 313 at Tacoma, Washington; a PSU training detachment at Camp Lejeune, North Carolina; and originally PSU 302, which was a battle-rostered composite unit.

PSU are staffed primarily by reservists. Even when there is no global conflict in which to participate, the demands on unit members are high. Reservists in PSU perform a minimum of sixty drills and two weeks of active duty a year. Normally, PSU have a complement of 140 reservists and five active duty personnel, with six 25-foot transportable port security boats (TPSB). The mission of the TPSB is to provide waterside protection to key high value assets (HVA) such as U.S. warships and military supply vessels in foreign ports, and may include the port, harbor, or pier itself.

PSU are capable of worldwide deployment, in national defense regional contingency environments, with the exception of polar regions or areas with ice-covered water. Operating environments are from shore sites or barges. And normally, the PSU will operate independently, but may operate with other naval coastal warfare (NCW) units or Coast Guard patrol squadrons.

Unit structure

In terms of its tactical unit organization, the PSU is divided into various divisions. The boats division is probably the most visible element of a PSU and ensures the functioning of the unit's assets. Each of the PSU's TPSB is crewed by three to four enlisted personnel, usually boatswain's mates, machinery technicians, or port security specialists. The engineering and logistics departments are responsible for upkeep on these TPSB, as well as other utilized vehicles, and the stocking of general supplies for the unit. These functions are absolutely vital to the successful operations of the PSU. Also somewhat behind the scenes is the security division, which is not only tasked to provide protection to vessels in security zones and pier areas, but also to provide security for internal unit needs such as the command center, communications center, berthing areas, entry control points (ECP), vehicle control points (VCP), and traffic control/vehicle movement. The security division provided security for the entire PSU and assisted the joint rear area commander's security forces in protecting joint command areas. The PSU security division consists of a variety of port security specialists led by the unit security officer. It is subdivided into squads with 3 four-person fire teams each. Each squad and fire team has a designated squad, or fire team, leader.

Security personnel are also trained in defensive position construction, individual movement and patrolling, and assorted weaponry including the M16 rifle, M9 pistol, M203 grenade launcher, M870 shotgun, M60 machine gun, and M2 .50 caliber machine gun. The weapons division maintains this arsenal. The members of PSU use a variety of light and crew-serve weapons. It is the weapons division's responsibility to ensure that the unit is fully armed and trained for any exercise, operation, or incident that may arise. This division consists of a weapons officer (WEPO), a gunner's mate first class (GM1), and two gunner's mates third class (GM3).

Training

PSU train to provide port security, harbor defense, and security operations for U.S. and allied naval ships deployed overseas. To meet this mission, port security

units have taken advantage of the other Services' programs for some basic training elements. For example, the Coast Guard utilizes the Air Force's Phoenix Readiness Training program to learn how to secure HVA, primarily in foreign countries, and to maintain force protection while establishing security operations. Participating in other Services' training has vastly improved the unit members' knowledge and understanding of DOD counterparts, as well as the capabilities of state and local authorities. Additional joint training and education will only serve to enhance operations of the unit in today's environment.

At the individual level, PSU personnel receive specialized training during regular inactive duty for training (IDT) availabilities, and normally participate in an exercise during annual active duty for training (ADT) periods. Personnel assigned to PSU generally undergo prerequisite training as well as minimum training for personal qualification standards (PQS). These requirements include in-rate training, which is very important, as a certain degree of specialization is needed in areas such as corpsman, supply functions, electrical and electronics, mechanics, boat handling, and food service support. Additionally, some resident training has been identified. These needs include load master training, required for developing a capability to load military gear on aircraft and ships for deployment.

Also, in addition to the expected indoctrination and skills associated with any Coast Guard unit, the majority of the training requirements are covered by a comprehensive PQS program and an on-the-job training (OJT) package specifically developed for the PSU. This PQS/OJT program includes basic military indoctrination, weapons training, field skills training, PSU boat tactics, security procedures, and command and control. A basic skills course has been developed by the PSU special mission training center (SMTC) that includes relevant material from Army, Air Force, and Marine Corps courses. However, it is tailored to the PSU mission-specific requirements and joint DOD operations.

Materiel

As noted, each PSU has six fast and maneuverable TPSB. These boats are 25-foot Boston Whalers outfitted with two 175 horsepower outboard engines. Initiatives to upgrade these assets include an alternate fuel source for the outboard motors that is supportable in theater and can also provide the necessary horsepower. Each boat is equipped with one .50 caliber and two M60 machine guns. The PSU have a large suite of weapons to include: the Browning submachine gun .50 caliber M2; the M60 machine gun; the M16A2 automatic rifle; 12-gauge riot shotguns; M9 9mm service pistols; and M203 40 mm grenade launchers.

To be compatible with DOD counterparts, PSU also carry tri-band PRC 117 portable radios with embedded encryption devices. These radios are used aboard boats and at the base sites. Each unit is also outfitted with spare material, pick-up trucks and vans, boat trailers, transportable kitchens, generators, and tents. PSU maintain an inventory of equipment and spare parts to sustain operations for up to thirty days. Ongoing logistics support provides routine replenishment. All personnel have required individual gear for field operations and chemical, biological, and radiological protection.

PSU 305

PSU 305 was formally commissioned on 19 August 1995, at the U.S. Army Transportation Center, Fort Eustis, Virginia. PSU 305 is a Coast Guard naval warfare unit assigned to Commander, Coast Guard Atlantic Area, and Commander, Maritime Defense Zone Atlantic. Throughout its short existence, PSU 305 had notable deployments to Turkey and Egypt.

But in the aftermath of the 9/11 attacks, PSU 305 successfully met the challenging schedule of increased deployments that ensued. On 13 September 2001, PSU 305 had been activated for duty in New York City, New York, in the aftermath of the World Trade Center attacks. Working around the clock to prepare and load equipment, the PSU had left Fort Eustis just 54 hours after being put on notice. Once in New York City, the PSU commenced operations with DOD and other federal, state, and local entities. Of note, in New York Harbor, PSU 305 provided waterborne antiterrorism and force protection. After two months of service, PSU 305 returned home. In a mere few months, the PSU would face another deployment to provide support to detainee operations in Guantanamo Bay, Cuba (or GTMO).

Case study: GTMO deployment

As a result of Operation ENDURING FREEDOM, the U.S. military took charge of a significant number of enemy combatants. On November 2001, U.S. Southern Command (SOUTHCOM), one of the nine DOD

combatant commands, activated Joint Task Force (JTF) 160 to head detainee operations at GTMO. When PSU 305 arrived at GTMO, the task force was under the command of Marine Brig. Gen. Michael Lehnert from Camp Lejeune, North Carolina. JTF 160's primary mission was handling these captured enemy combatants from the Global War on Terrorism. Camp X-ray was established in support of detainee operation activities as the holding facility for Al Qaeda, Taliban, or other terrorist personnel. JTF 160 also provided support to JTF 170 that was stood up by SOUTHCOM to coordinate U.S. military and government agency interrogation efforts in support of the Global War on Terrorism.

On 11 January 2002, PSU 305 was called to active duty and directed to deploy to the U.S. Naval Base at Guantanamo Bay. Approximately a hundred of the men and women assigned to PSU 305 departed Virginia on 16 January 2002 to support Joint Task Force 160 (JTF 160). The Coast Guardsmen of PSU 305's Detachment Delta joined more than 1,000 U.S. Service members from the Army, Navy, Air Force, and Marine Corps deployed to GTMO. To a much greater extent than it had recently done in New York City, PSU 305 provided antiterrorism and waterside force protection/security to military vessels in the bay, and land-based protection to amphibious off-load ships.

Command organization

PSU 305 operated as a component of Naval Station Guantanamo Bay and JTF 160. While the PSU can be employed independently, the concept of operations provide for close coordination with Navy mobile in-shore undersea warfare units (MIUWU), in-shore boat units (IBU), explosive ordnance disposal (EOD) units, mobile underwater demolition and salvage units (MUDSU), Marine Corps fleet antiterrorism and security teams (FAST), and Army military police (MP) units. Command and control (C2) of the various harbor defense components rests with the naval coastal warfare (NCW) squadron. The NCW squadron is a Navy C2 unit normally deployed to provide all C2 to maritime entities, and is jointly staffed with Navy active duty and reservists–and, given the mission and statutory relationships between the sister sea Services, also Coast Guard reservists.

PSU 305 was for all practical purposes an operating element of this NCW organization. PSU 305, along with the U.S. Naval Reserve MIUWU 208 from Miami, Florida, made up the Joint Maritime Patrol Group (JPMG) that was responsible for law enforcement, search and rescue, and guarding the waters around GTMO. PSU 305 worked closely with MIUW 208 to provide seamless command and control capabilities in the area of responsibility (AOR). In February 2002, MIUWU 208 had deployed to GTMO to provide support to port security and harbor defense efforts, and generally operated high in the hills surrounding GTMO to provide it a tactical advantage.

Effecting the mission

In GTMO, PSU 305 provided vigilant escort and patrol techniques of U.S. detainee transfer operations, high level dignitary arrivals and departures, and U.S. and foreign vessel transits. During its tour of duty, PSU 305 utilized all of its six TPSB to provide surveillance and interdiction capability to monitor activities on the water. These TPSB were piloted by Coast Guard coxswains in conjunction with command and control from tactical action officers. As various U.S. and foreign flagged vessels transited through GTMO's AOR, TPSB were required to "shadow" each vessel. Even recreational vessels were closely monitored.

As the key maritime security force, PSU 305 also participated in waterside detainee transfer operations. Working alongside DOD counterparts, PSU 305 provided waterside barriers to mitigate all foreseeable disruptions incumbent to detainee transferring. These operations were the sole method of moving what eventually were over 430 detainees from the point of their arrival to the island and onto their final location at the secure facilities at Camp X-Ray.

PSU 305's force protection mission was not only limited to the water. On the shore, members of the Security Division/Shore Side Security section manned entry checkpoints. As experts in security operations and land combat techniques, they controlled the entry and exit of vehicles, people, and detainees transiting to Camp X-Ray and Camp Delta.

Overall assessment

The PSU has proven itself to be a valuable military asset in the post 9/11 era. In our case, PSU 305 spent five months providing security for the base holding 434 Al Qaeda and Taliban detainees. It returned home via Langley Air Force Base after being replaced at GTMO

by PSU 307. PSU 305 had provided effective security and anti-force protection for the GTMO operations. Regardless of the continuous high operations tempo, during its deployments PSU 305's morale remained at the highest of levels. As a pivotal time in the commencement of the Global War on Terrorism, PSU 305 answered the call to serve the country. Without hesitation, reservists deployed to New York City and GTMO (and later in theater support of Operation IRAQI FREEDOM), always ready to answer the call for its specialized skills.

About the authors:

LT Ronzelle L. Green is a Coast Guard reservist attached to the U.S. Joint Forces Command. Previously, he was the Engineering Officer at PSU 305. During his tour at PSU 305, he deployed to New York City and GTMO in support of Operation ENDURING FREEDOM, and to Rota, Spain, in support of Operation IRAQI FREEDOM. As a civilian, he works as a contractor supporting the Maritime Domain Awareness Directorate at Coast Guard Headquarters in Washington, DC. **LT Kevin L. Richardson** is a Coast Guard reserve officer attached to PSU 305. He has served in various operational assignments at PSU 305 and staff assignments at Coast Guard Headquarters. During his tour at PSU 305, he deployed to New York City and GTMO in support of Operations NOBLE EAGLE and ENDURING FREEDOM. As a civilian, he is a management official and Special Assistant to the Deputy Administrator for Compliance and Analysis, Agricultural Marketing Service, U.S. Department of Agriculture, in Washington, D.C.

PSU 305 TPSB patrolling coast

Embracing a Wartime Mission: Coast Guard Aviation and the Challenge of Homeland Security

CDR Dave Hartley
U.S. Coast Guard

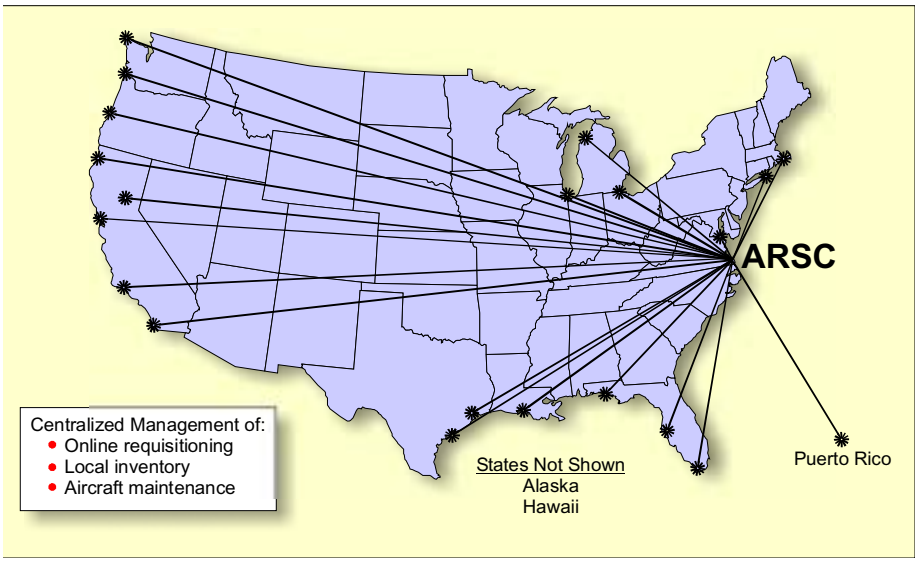
Supporting Coast Guard aviation missions is more critical than ever as the organization emerges as the lead logistics support activity within the Department of Homeland Security (DHS). The Aircraft Repair and Supply Center (ARSC) is the aviation logistics center supporting a fleet of nearly 200 aircraft at 25 air stations. Established in 1939, it grew substantially at Elizabeth City, NC, during WWII as the hub of aviation logistics. Again, the organization has shifted quickly for sustained increases in operations tempo (OPTEMPO) as we muster the nation's resources in the War against Terrorism. As leadership charts the organization's course, determining new ways of becoming the "vendor of choice" are a natural outcome as Coast Guard (CG) Aeronautical Engineering better positions itself for leading rather than following the ensuing wave of change.

ARSC continues to redefine ways to be more responsive to the evolution of aviation missions and opportunities as DHS and Deepwater Acquisition priorities challenge a 'business as usual' approach. On both fronts, ARSC is an emerging leader as it hones its core strengths in:

- Procurement – manages over 180 contracts valued at $450 million
- Reliability Engineering – integrates aging, corrosion with non destructive inspections and maintenance scheduling
- Overhaul and Repair – performs depot maintenance on 20 aircraft and overhauls 300 components daily
- Inventory Control – 3 acre warehouse that ships 620 parts daily
- Technical Support – 4 product lines respond to over 100 engineering questions daily

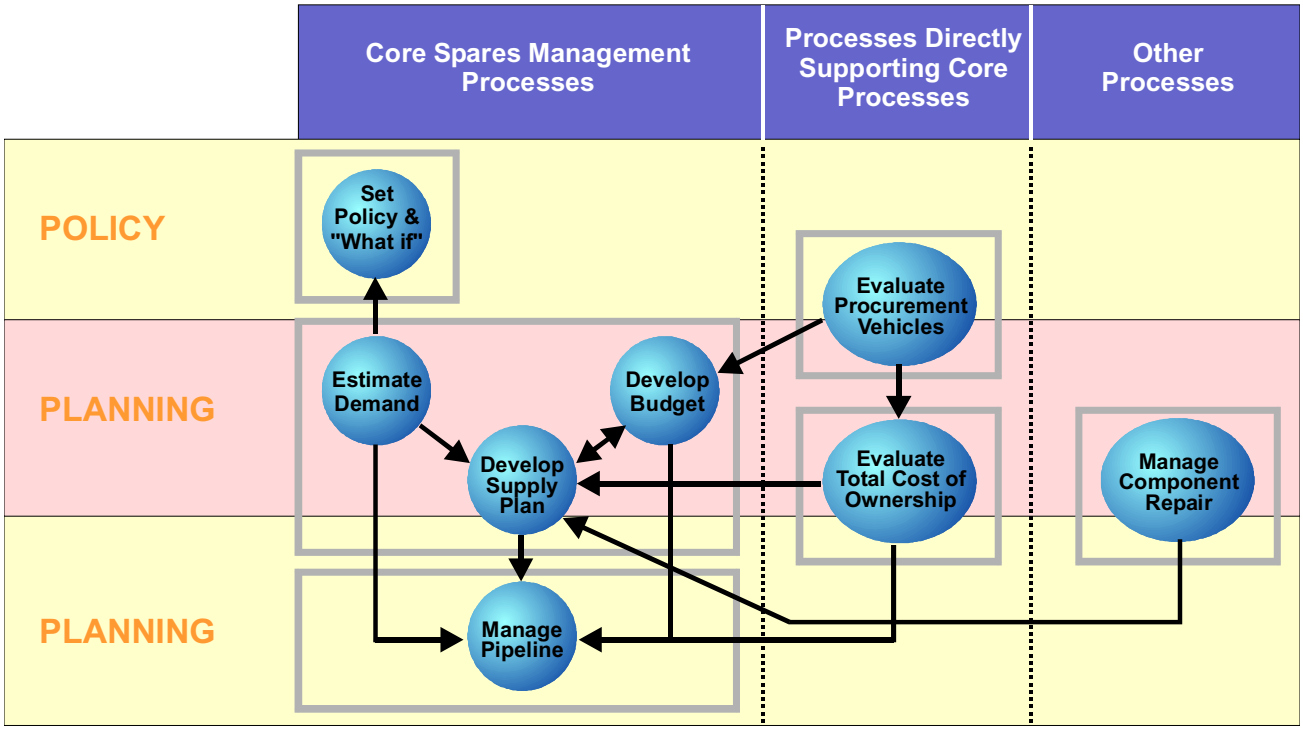
These competencies are translated to an interactive system view across three tiers: 1) Policy, 2) Planning, and 3) Operations. These decision-based activities cross divisional boundaries and continue to be the center of business issues as we strive to meet our shifting mission requirements.

In its new role as Deepwater "vendor of choice," ARSC is in a unique position to export its successful Aviation Logistics Management Information System (ALMIS) as the Coast Guard's gold standard in configuration management and logistics support activities. For example, the U.S. Immigration and Customs Enforcement (ICE) Air and Marine Operations are investigating the merits of Coast Guard aviation's maintenance management systems. ICE commissioned a pilot project and seeded personnel at ARSC to migrate specific aircraft within the maintenance scheduling system. This effort is consistent with our department's mandate to seek functional integration opportunities and reflects the organization's robust fundamentals. Strengthening our supply chain is consistent with our ability to lead — our ability to leapfrog comes from having a solid basis from which to jump.



Assessing Emerging Roles and Goals

Exacting the most from ARSC's base to meet newfound responsibilities is vital not just to



Aeronautical Engineering, but also to the security of our nation. To achieve this, we view ARSC through a post 9/11 lens, and ask, "What is required to meet the emerging demands?" The essence of the mission requires dexterity, balanced between capability and budget. The answer can be found in building a capability consistent with responsibly and responsively delivering value across critical decision paths (e.g., make, buy, or repair — when, how much, and where). When framed within a mission/business context, necessary business decisions are flushed out; that is, should warehouse space be displaced by repair capability; should certain vendors own more or less of the supply chain to enhance mission support; at what cost, at what expected outcome?

A recent investigation of these issues reaffirmed the incredible value the organization brings to the table. This study, "Spares Optimization Business Analysis," completed June 2002, boiled down ARSC's value in terms of how effectively the organization delivered reliable products. The organization is most successful where crisp hand-offs occur within the supply chain. Smooth hand-offs are aligned with visible, well-defined processes; however, less visible hand-offs are sometimes fumbled at considerable cost. This is expected, as priorities are constrained by human capital, budget, and time. The unwieldy accumulation of fumbles across the chain can be thought of as a system reaching or exceeding its control limits. This is often seen as chasing requirements rather than staging them. The benefits in strengthening the chain are highlighted:

Build Capability

Becoming more capable in supply chain hand-offs requires focused investments. In Fiscal Year 2003 (FY03), the Aviation Logistics Division sponsored a series of pilot projects to exploit the most critical gaps in the chain. The idea is to build analytical infrastructure as ALMIS enhancements, with pilots spawning viable tools within the ALMIS analytics tool suite. Three pilot programs were launched in FY03: 1) Demand Forecasting, 2) Strategic Performance Management, and 3) Procurement Management. Demand Forecasting, which reported out April 2003, has already validated the viability of the pilot approach.

Pilot Program 1 - Demand Forecasting

The first pilot program, Demand Forecasting, seized available technology to solve the questions, "how much" and "how often." To support this concept, the organization created a brain trust that became a clearing-house for requirements, market research, and decision tool rapid prototyping. As plank owners, the first operations research shop hastened the creation of a viable product by forming a partnership, first with Decision Analysis Partners of Vienna, Virginia, then with SAS Institute of Cary, North Carolina. The forecasting pilot gave rise to

Benefit	Current Situation	Outcome of Benefit	Performance Metric
Right-sizing inventory levels	Some inventory levels are largely based on initial provisioning and are likely too high.	Reclaiming of storage space Reduction of related --indirect -- inventory management costs. Reclaiming of scrap value.	Inventory turnover
Right-sizing allowance levels	Allowance levels are inconsistent and are not backed by empirical evidence; less than 1/30 are established by an analytical method.	As safety stocks and cycle stocks begin to reflect true variability in demand and lead-time, the focus will shift to variability reduction.	Demand and lead time variability
Reduction of backorders	ARSC has not yet achieved total pipeline visibility and cannot balance actual and anticipated demand rates with stock positions in the pipeline.	Reduction of airfcraft on ground (AOG) and nonmission capable (NMC). Improved aircraft availability.	Order fulfillment ratio
Reduction of order fulfillment costs	Orders often have to be expedited to compensate for the lack of total pipeline visibility. This raises the fulfillment and repair costs.	Improved ability to meet budgetary goals.	Fulfillment costs vs. cost of issues
Reduction in administrative and repair lead times	ARSC does not manage the supply pipeline against operational goals; rather by the average of the past two years usage.	By managing to a supply plan, items managers will initiate efforts to reduce lead times in order to streamline the pipeline.	Administrative and repair lead times
Streamlined supply pipeline	The spares supply chain lacks agility because of the aging fleet and the obsolescence of many components.	Proactive stance in engaging in collaborative relationships for parts pooling, and in establishing strategic vendor relationships.	Cost of assets owned

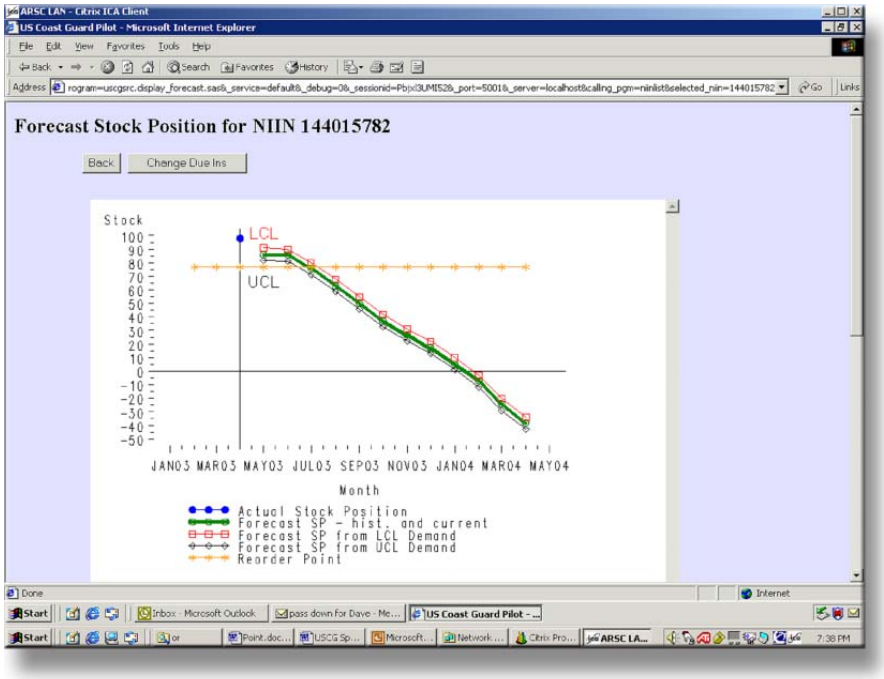
the first ever logistics data warehouse, where demand and procurement data are: 1) staged and infused with intelligence; and 2) bridged to several tools in the ALMIS Analytics Tool-Kit. This pilot program was launched via a web-based connection to inventory managers where a work queue is prioritized, what-if's are gamed, and forecasts are launched with a computer click.

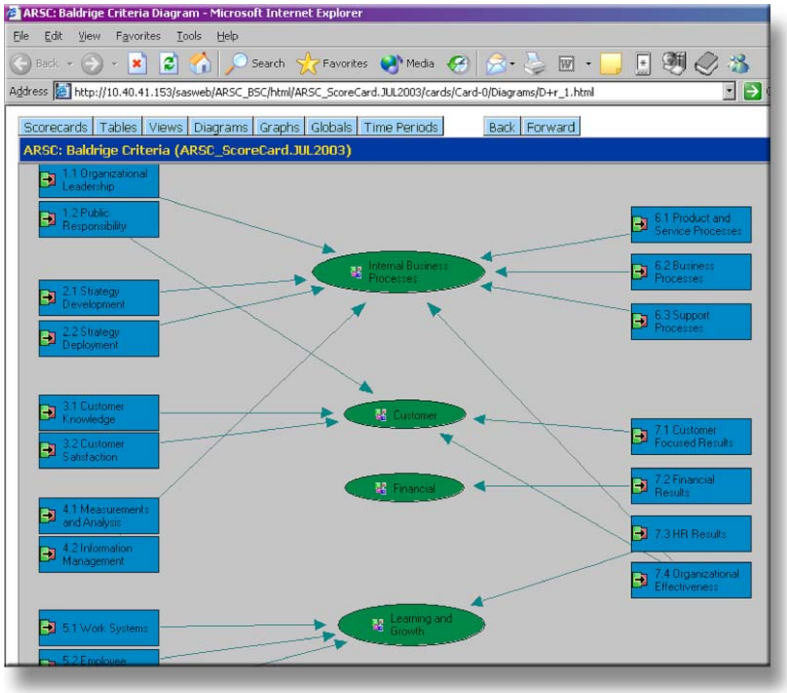
Items are graphically depicted with past and future stock positions. The prototype began with 15 items and expanded to hundreds as the pilot moved into production in May 2003.

Pilot Program 2 - Strategic Performance Management

The second pilot program, Strategic Performance Management weaves together a common view of the organization, linking strategic goals with organizational trends and metrics in a balanced scorecard. Leveraging implementations by the Federal Aviation Administration (FAA) Technical Center and the U.S. Marine Corps, ARSC leads the Coast Guard in illuminating clearly defined process trends. This web-based solution focuses on issues on the leading, rather than the trailing, edge of trends. The tool becomes the thread that connects the organization's far ranging objectives into a pre-packaged criterion such as the Baldridge Award.

Additionally, the scorecard brings the organization's strategic plan into a cohesive view:





Maximize readiness through systems performance - completing aircraft on time, zero repair discrepancies, optimizing aviation inventory, improving capital facilities, and producing reliable/maintainable aircraft.

Optimizing human resources - developing human capital, enhancing employee well being, satisfaction and safety, promoting environmental stewardship and community citizenship, and developing senior level continuity for business and human resource management.

Leverage best business practices to support core competencies - exercise good financial stewardship, becoming the maintenance center of excellence for the Department of Homeland Security, achieving ISO certification, aligning with e-Gov agenda, developing a standardized enterprise balanced scorecard, expanding vendor partnerships, and increasing customer satisfaction.

Pilot Program 3 - Procurement Management

This pilot program addresses the need to minimize admin and procurement lead-time delays within the supply chain. Because shorter delays translate into less inventory burden, this area holds much potential. The program emphasizes rigor in identifying items for specific contract action. The key objectives answer the following issues:

- Should an item be on contract; if so, what type?
- What criteria should be used to make the contract choice?
- Are vendors meeting required repair turn around targets?
- Which items managed by ARSC would be better managed by external vendor and vice versa?

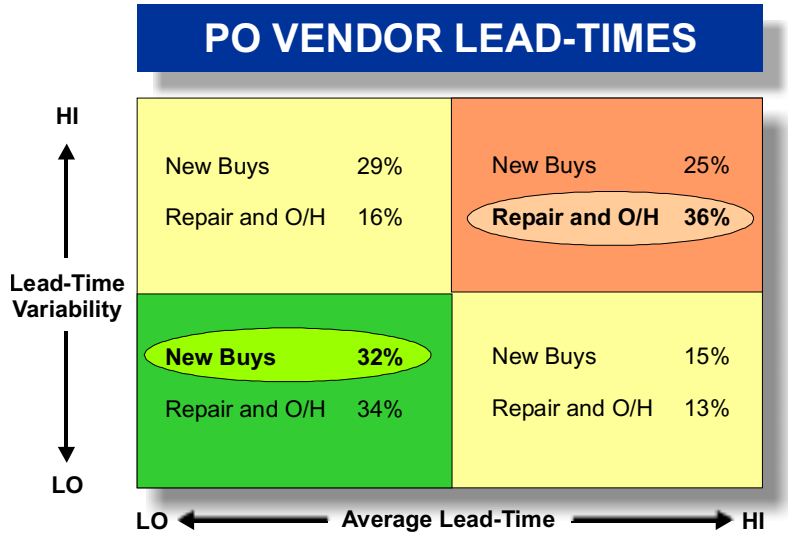
A first cut on the procurement area was completed in April 2003 using SAS Analytical Software, where a significant slice of purchase orders were identified as potential candidates for requirements contracts.

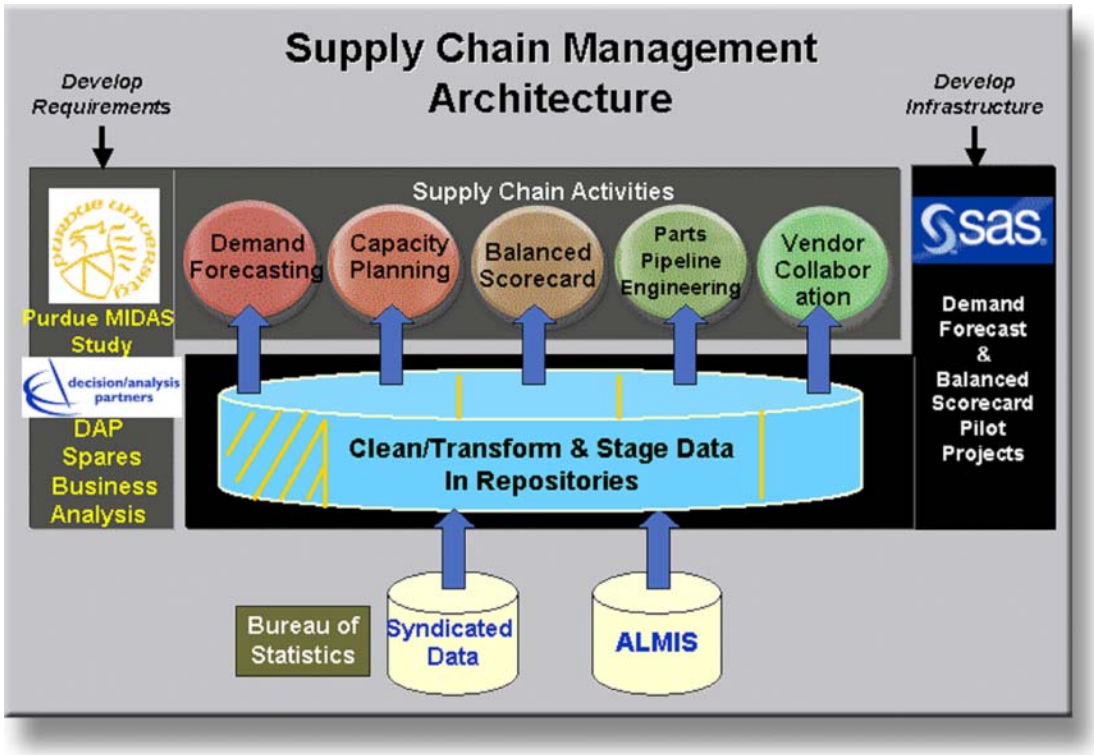
Demand forecasting and Procurement Management initiatives support vendor collaboration. By providing demand profiles to vendors, we manage expectations, reduce risk, and leverage predictability.

Moving Toward the Future Today

By working these pilot programs, we are addressing the organization's strategic supply chain objectives.

Building infrastructure that increases the viability and connectedness of the links within the supply chain





translates to more capability within the same capital outlay. The Aviation Logistics Analysis Office is actively building relationships with SAS Institute's Supply Chain Intelligence Group and Purdue University. Moving toward developmental partnerships brings new capability through evaluating and refining emerging tools of the trade. Relationships with SAS and Purdue further strengthen our ability to better integrate the links within our supply chain.

Linking and enhancing the right processes through straightforward industry decision tools are essential elements in ensuring we have the right stuff, in the right amount, and in the right place. Increasing operations research capabilities evolves the organization's ALMIS analytics tool-kit more quickly. The first ARSC statistician is now in place with a data warehouse programmer shortly behind. These organizational shifts will provide logistics managers the right information paired with the right decision-making tools to improve the quality and responsiveness of our supply chain.

Coast Guard Aviation is rising to the challenge to meet mission needs within the newly formed Department of Homeland Security. Our emerging role as aviation logistics leader provides opportunity to flex our core competencies in new and creative ways. The constant in this sea of change is the organization's fundamentals; solidifying them provides the potential to extend our influence. As we continue to improve our supply chain, we strive to reach a balance between cost and capabilities. And as we move into this new era, we will meet or exceed our requirements through continued investment in our supply chain: sound forecasting, spares planning and budgeting, and obsolescence management.

Editor's Note: A previous version of this article appeared in the Spring 2004 edition of the *U.S. Coast Guard System Times*.

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