

Combating Improvised Explosive Devices: Is America Ready for Another Boston?

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Abstract

As demonstrated by the Boston Bombings, the threat of Improvised Explosive Devices (IEDs) at home and abroad has not reduced since the end of major combat operations in Iraq and Afghanistan. It's been nearly three years since Boston. The President has published strategic policy to combat the threat, however actions taken by the Department of Defense to respond have been inadequate considering the threat and responsibilities. The DoD's roles and responsibilities must be more clearly defined while in support of the homeland. Explosive Ordnance Disposal response is needed by the Interagency, but better efficiencies from the explosive enterprise stakeholders must be gathered and embraced. Both federal law and DoD policies must be updated to focus on all threats, and increased cooperation and interoperability within the Interagency must be realized.

Combating Improvised Explosive Devices: Is America Ready for Another Boston?

There is something symbolically satisfying about a pure explosion, the emotional satisfaction and drama attached to it; calling everybody's attention to the fact that something has been done.

— Dr. John P. Spiegel¹

On April 15, 2013, two homemade bombs exploded near the finish line of the Boston Marathon. The explosions killed three individuals and wounded 264 nearby racers and spectators. Sixteen of the wounded persons experienced traumatic amputations. The unexpected attack closed the city of Boston four days while over 1,000 first responders searched for the suspects.² The homemade explosive devices used were constructed from pressure cookers, firecrackers, ball bearings, Christmas lights, and remote control car parts assembled by plans accessed from the internet via extremist literature.³ It is estimated the economic loss to the greater Boston area due to the shut down during the ensuing man-hunt exceeded \$333 million.⁴

It has been nearly three years since Boston. The ability to stop the “lone wolf” or the insurgent network bomb maker before an explosion is difficult, therefore security professionals project Improvised Explosive Devices will remain a threat for the foreseeable future.⁵ As bombs continue to be a criminal and terrorist weapon of choice, the need to defeat these devices requires an integrated and seamless coordination of government resources. In the U.S. there are approximately 18,000 police departments; however, there are only 465 public safety bomb squads equipped to handle explosive threats.⁶ The lack of civilian agencies trained and equipped to respond to explosive threats as well as their reliance on the military for assistance when their capabilities are overwhelmed highlights the need for increased interoperability between the Department of Defense and civilian agencies.

A seamless whole of government response to explosive threats while using interoperable procedures, training and equipment with clearly defined authorities and responsibilities will reduce the complications and risks encountered during Boston. That said, the authorities, training, equipment interoperability, and accessibility which is needed to support civilian agencies in defense of the homeland has not kept up with senior political leadership. Actions taken by the Department of Defense to improve interoperability have been inadequate considering the threat and intergovernmental responsibilities for public safety.

Background

Improvised Explosive Devices, also known as IEDs, have been around for centuries but most recently came into the spotlight during the Afghanistan and Iraq wars. The Joint Improvised Threat Defeat Agency (JIDA) estimates half to two-thirds of U.S. service men and women killed or wounded in Iraq and Afghanistan were a result of IEDs. To put that into perspective, it is estimated that there were over 3,100 killed and 33,000 wounded U.S. military personnel because of IEDs.⁷ IEDs became the insurgents' weapon of choice because of their relatively low cost build and their effectiveness against the most capable and technologically advanced military in the world. Examining domestic threats in the Homeland such as Boston, bombing motives and ideologies may be different, but the resources and training required to defeat the threats are the same.

The use of IEDs in America has a long history. Many remember the radical bombings of the 20th century such as Ted Kaczynski, the "Unabomber," the unrest of the Vietnam era, the Murrah Federal Building in Oklahoma City, and the World Trade Center Bombing in 1993. However it was much earlier in history, in 1886, when

improvised bombs not designed for military purposes started to be used as a weapon of terror, coercion, and for criminal purposes. The historical relevance, ideologies and employment of these weapons which produce such devastating physical and psychological effects provides perspective as the Department of Defense predicts future threats and determines if the right authorities are in place and if response forces are organized correctly to integrate with civilian counterparts.

On 4 May, 1886 at Haymarket Square in Chicago, union workers gathered to protest a police attack on a picket line where union members were injured and killed.⁸ When police began to disperse the crowd, the protesters threw a bomb near the police. The police responded by firing into the crowd, killing twelve.⁹ The motivation for early bombings in the United States can be attributed to the social labor movements during the second American Industrial Revolution. One of the more notable movements was coined “The Great Dynamite Conspiracy”.

The Great Dynamite Conspiracy was a bombing campaign that occurred in the United States from 1908 to 1911. Approximately 150 bombings were carried out by labor unions and anarchists who were upset that companies were not using union labor workers.¹⁰ The bombings targeted non-union jobsites and factories, and also targeted the social and media organizations that were considered “anti-union”.¹¹ One of the more devastating attacks was against the Los Angeles Times building in 1910 that killed 21 people, wounded over 100 more, and destroyed much of the building.¹²

The Times bombing was the culmination of a series of bombings conducted on behalf of John and James McNamara of the Iron Workers Union. Harrison Otis, Publisher of the Los Angeles Times was vocally anti-union and used the newspaper to

spread anti-union sentiments to its readers. The bomb placed in the Times building was expected to detonate when the building was empty, however it detonated prematurely and it was unknowingly placed near a gas main. The suitcase full of dynamite and the ensuing gas main fire caused the building to partially collapse. The “dynamiting” of the building led to great public resentment of the Iron Workers Union and the McNameras. Following their guilty pleas John McNamera bolstered on the effectiveness of his bombing campaign stating “You see?... The whole damn world believes in dynamite.”¹³ The ideology that you coerce an individual, government or private organization by threat of a bomb is seen today.

The anarchists who were active in bombings in the late 19th and early 20th centuries started as criminal elements rather than terrorist organizations. The earliest bombings started as sticks of dynamite planted to intimidate and extort Italian residents and merchant owners in New York City. The frequency of the attacks led the New York City Police Department to establish a bomb-squad in 1903. First known as the “Italian Squad”, their mission was to handle the sticks of dynamite reported to the police. The Italian Squad was renamed to the Anarchist Squad and finally in the spring 1931 the title “Bomb Squad” was coined.¹⁴ Whether bombings are carried out for criminal acts such as extortions and murder, or for terrorist acts such as anti-government sentiment or religious ideologies, the actions taken to render safe the threat are the same.

Bomb sophistication, complexity and lethality advanced from plain sticks of dynamite to more sophisticated devices with the ability to produce mass casualties. In mid-September 1920, the first documented vehicle borne IED (VBIED) terrorist attack against the New York financial system occurred. In the middle of Wall Street, in front of

the U.S. Assay Office across from the JP Morgan building, a bomb made of a horse drawn wagon loaded with explosives surrounded by metal fragmentation detonated at noon, killing 30 and wounding over 300.¹⁵ Although the case was never solved, the Bureau of Investigation (the predecessor to the FBI) suspected Italian anarchist as the perpetrators and the crime remains one of the worst bombings in the United States.¹⁶

Additional explosive attacks in the homeland grew from the 1920s to the 1940s, mostly in New York City. On September 11, 1938, two bombs exploded in New York City's fur district, and on June 20, 1940, two more bombs exploded in an office building near Battery Street.¹⁷ Two weeks later on the 4th of July, two bomb squad detectives were killed at the New York World Fair by a bomb planted near the British Pavilion.¹⁸ After the bomb was discovered, two New York City detectives transported it to a safe location. It blew up as they attempted to disarm it. As with most bombings during the period, the World's Fair bombing was used to send an anti-war message to the government.

Bombings continued to be a weapon of ideology through the middle 20th century. In 1940, George Metesky, also known as "the Mad Bomber" conducted 22 bombings in New York City, injuring 15 people. He was eventually caught in 1956 and placed on trial. His motivation behind the bombings was to highlight the perceived wrong doings of Consolidated Edison where he had worked. He was convicted and sentenced to a mental hospital.¹⁹

Race and religious tensions in the south during the 1950s-1960s manifested into violent protests and attacks. The first recorded religious ideology bombing in America occurred at an Atlanta Hebrew Temple in 1958.²⁰ Suspected white supremacists placed

50 sticks of dynamite in the entranceway at Atlanta's oldest synagogue. No one was injured in the blast, and it was rapidly condemned by President Eisenhower and by Atlanta's citizens, businesses and media. Collectively the Atlanta community raised funds to repair the temple and quelled anti-Semitism within the city.²¹ White supremacists also bombed a Birmingham church where civil rights leaders met in September 1963. The bomb killed four and injured 23.²²

By the late 1960s bombings became more prevalent against government and financial institutions as a result of the anti-war movement. In 1969 eight major bombings occurred in New York in a period of less than four months.²³ Eventually the FBI linked them to Samuel J. Melville, an anti-war radical. Others also chose to express their opposition to the Vietnam War by bombing. At the University of Wisconsin a van filled with high explosives detonated, killing one and injuring three others. The target was the Mathematics Department which had been conducting research for the U.S government.²⁴

By 1969, at the height of the American anti-war sentiment, frequent bombings caused widespread fear and anxiety and became a threat to national security.²⁵ Senator John L. McClellan led an investigation concluding that during the period of January 1969 to April, 1970 there were 4330 bombings in the U.S. that killed 43 and caused \$21.8 million in property damage.²⁶ Recognizing the threat to national security, the Department of Justice came to the Department of Defense for help. In June 1970 the Department of Justice formally requested assistance from then Secretary of the Army Stanley R. Resor to design and present a program to train civilian law enforcement to deal with bombs and bomb threats.²⁷

By June 1970 the Department of Defense bomb disposal program had accumulated 30 years of explosives training, experience and formalized education using lessons learned from WWII, Korea and Vietnam. Returning soldiers from Vietnam had encountered numerous booby trapped roads, packages and buildings, including underwater IEDS. Military personnel returning from combat had the resident expertise to support the FBI's request. In December 1970 the Army established the Hazardous Devices School at Redstone, Arsenal, AL to train federal, state and local police to render safe improvised explosive devices. This also began the longstanding partnership between military and law enforcement bomb disposal professionals.

Following the Vietnam era anti-war bombings, IED attacks continued to follow ideological themes such as the attack on the U.S. Senate building in 1983 which was in response to Military involvement in Lebanon and Grenada.²⁸ Ideologies varied, the Unabomber, Ted Kaczynski targeted individuals involved in developing technology as a form of "nature-centric anarchism". His seventeen year bombing campaign killed three and injured 23.²⁹ Responding to one of the Unabomber's mail bombs at the University of Utah is an example of the close integration of military and civilian agencies working together. There, the university police contacted the nearby Army EOD unit when a suspicious package was delivered to a business professor.³⁰ The availability of nearby Department of Defense EOD forces able to immediately respond off of the installation that day saved the lives of first responders and civilians.

Anti-Western extremist bombings events began to rise in the 1980s with the bombing of the Marine Corps Barracks in Beirut, killing 241.³¹ Following the first gulf war, Khaled Sheikh Mohammed, the al-Qaeda orchestrator of the 9/11 attacks also

coordinated the 1993 bombing of the World Trade Center that killed six and injured over 1000.³² Additionally, he was responsible for the December 2001 shoe bombing attempt on a U.S Airline in Detroit. Al-Qaeda was responsible for the bombing of the USS Cole in Yemen in 2000, which killed seventeen sailors.³³ The targeting of both military and civilian organizations and facilities by the same terror networks, and the response to the attacks highlighted the need for increased cooperation between military and civilian agencies. That cooperation was critical because it also incorporated forensic exploitation and intelligence of the device which was provided to the explosives enterprise and law enforcement community. The synchronized forensics conducted at home and abroad determined the same explosives used in the airline shoe bomb were later discovered in Afghanistan, allowing for further attribution and prosecution of terrorists.

Eric Robert Rudolph was a homegrown terrorist motivated by Christian Extremism and convicted of multiple bombings in the 1990s, including the 1996 Centennial Olympic Park bombing in Atlanta. His four bombs killed three and wounded 120 more.³⁴ Three of his bombings contributed to anti-abortion sentiment, and one to an anti-homosexuality sentiment.³⁵

Timothy McVeigh, who designed and executed the Oklahoma City bombing which killed 168 and injured over 500, believed the Federal Government was becoming too overbearing and compared it to the British prior to the American Revolution. McVeigh's anti-Federal establishment ideology was reinforced when he watched the Federal Government raid on the Branch Davidian compound on April 19, 1993, resulting in 74 men, women and children being killed. He chose April 19th 1995 for the Oklahoma

City bombing as it was the 2 year anniversary of the Federal Government raid on the Branch Davidian compound.³⁶

Terror networks, extremist, and home-grown “lone wolves” threaten the homeland, they disrupt the economy, cause catastrophic loss of life and property, and generate public fear. Without security, the United States’ economy is crippled. The Department of Defense played a role in the Boston Bombing response, but military and civilian cooperation was awkward. The response highlighted gaps in the whole of government response and improvements that are needed in the Department’s ability to defend the homeland, specifically with regards to communication, authorities, and first responder equipment.

Department of Defense Role

The Department of Defense (DoD) is responsible to provide Defense Support to Civil Authorities (DSCA) and Defense Support for Civilian Law Enforcement Agencies (DSCLEA) per Department of Defense Instruction 3025.21.³⁷ The Under Secretary of Defense for Policy (USD(P)) establishes Defense Support policy, and the Assistant Secretary of Defense for Homeland Defense and America’s Security Affairs (ASD(HD&ASA)) develops and coordinates the implementation of the USD(P) policy. This includes, but is not limited to coordinating with DoD’s General Counsel and consulting with the Attorney General for the deployment of military assets while in support of law enforcement activities.³⁸

Upon request by any federal, state, local or tribal agency, DoD officials, including local military commanders, may dispatch their Explosive Ordnance Disposal (EOD) personnel off installation in response to explosive, biological, chemical or nuclear threats and render the hazard safe or provide technical advice. There are two types of

authorities where the DoD may authorize deployment of EOD forces within the homeland, immediate, and non-immediate response.³⁹

Immediate response authority is exactly what it sounds like. It is a response to an emergency that poses an immediate threat to public safety, where the threat or potential threat could cost lives, cause human suffering, or great property damage. The DoD provides assistance to civil authorities when they find suspected military munitions, deteriorated or damaged explosives, homemade explosives or homemade improvised explosive devices.⁴⁰

Requests by civilian agencies generally occur in response to explosive items that were illegally removed from military bases, munitions found on property formally used by the Department of Defense, transportation accidents involving military munitions, and the unauthorized public possession of military munitions.⁴¹ Responding to non-military commercial explosives or other dangerous explosives are normally the responsibility of civil authorities, however, under immediate response criteria, DoD EOD forces can respond due to the danger to public safety.⁴² Immediate response authority is not limited to a time period, but a set of conditions in which the threat remains an emergency and a danger to public safety.

Non-Immediate response authority for EOD personnel or equipment resides with the Secretary of Defense. Non-immediate responses are typically requests for pre-planned events. This may involve assistance with serving warrants where there is a threat of explosives, use of EOD equipment such as x-rays or robots for national security events, or conducting searches for explosives and post-blast investigations where the explosive hazard is no longer an emergency, but technical advice is

requested. Secretary of Defense approval is not required for EOD support to pre-planned Secret Service support or while conducting unexploded ordnance and IED awareness training with law enforcement, emergency responders, or the public.⁴³

Military and Civilian Bomb Squad Capability

Bomb Squad capabilities have improved since the days of the Italian Squad. Today there are 465 civilian Public Safety Bomb Squads with over 3500 qualified civilian bomb technicians in the United States who were trained by the U.S. Army and are capable of responding to hazardous explosive devices.⁴⁴ In addition to the local and state public bomb squads, the Federal Bureau of Investigation and the Bureau of Alcohol, Tobacco, Firearms and Explosives maintain a robust forensics capability and are tasked as the lead federal agencies to investigate terrorist and criminal bombings. The Department of Defense has expanded bomb disposal capability to approximately 7500 active duty EOD qualified personnel. Approximately 3500 of the active duty EOD technicians are available in the U.S. and maintain explosive threat response capability to support civilian authorities.⁴⁵

DoD's capability to respond to explosive threats emerged in early 1941. With the war in Europe raging, the need for additional U.S. military bomb disposal experts grew. Prior to the attack at Pearl Harbor, the United States observed the trials of the British as Germany bombed their cities. London had been bombed and rocketed, and many of the bombs failed to explode but remained extremely hazardous. The United States expected to enter the war and realized there was a need to quickly respond to and defuse munitions that could potentially be dropped on America's cities and industrial base following an attack.⁴⁶

In light of the threat to national security, the Commanding General of the Army's Ordnance Training Center at Aberdeen Proving Ground established the Army Bomb Disposal School. Subsequently, in May 1941 the Navy established the Mine Disposal School, followed by the formation of the Navy Bomb Disposal School in December of the same year. In 1947 the Navy was designated to provide Joint Service basic EOD training.⁴⁷ Today, Naval School Explosive Ordnance Disposal is staffed with EOD instructors from all services, providing the foundation for all military bomb technicians. The basic EOD school spans 147 training days and covers U.S. and foreign military ordnance as well as improvised explosive devices.

The experience military bomb disposal technicians gained from WWII, Korea, and Vietnam allowed the Department of the Army to support the FBI's request of 1970. Hazardous Devices School was established to train law enforcement personnel to render safe explosive devices.⁴⁸ Today, all federal, state and local bomb technicians receive six weeks of training supplied by a cadre of Department of the Army Civilian Instructors and supplemented by an array of Army Explosive Specialists with experiences from Iraq, Afghanistan, Kosovo and Bosnia. Upon completion of the 30 training day course, civilian bomb technicians are certified by the FBI to conduct render safe operations in the U.S. The 47-year Army/FBI partnership is expected to end in 2017 when the FBI assumes full control of Hazardous Devices School from the Army.

Current Policies and Authorities

On February 23, 2013, marking the 20th anniversary of the 1993 World Trade Center bombing, President Obama released his *Countering Improvised Explosive Devices* Policy Statement. This statement was released just over a month prior to the Boston Bombings. The policy highlighted the rise in IED attacks and laid out the

President's plan to strengthen U.S. response. Studying the policy critically, it discusses the ends as "Leveraging, Integrating, and Aligning United States Government Efforts, Enhancing Our Focus on Protecting American Lives. Promoting Cooperation with Governmental, International, and Private Sector Partners." The ways are described as the employment of eight "policy to action" priorities.⁴⁹ The action items the President presented in the policy stressed standardizing equipment and training, IED exploitation and intelligence and maintaining our deployable counter-IED resources.⁵⁰

The policy did not discuss the means, however it did assign the FBI administered Joint Program Office for Countering IEDs as the agency that will "coordinate and track progress across the departments and agencies toward building these capabilities....and also provide metrics and assist departments and agencies in coordinating their priorities."

Roles and Responsibilities

Department of Defense Explosive Ordnance Disposal units have a distinctive responsibility to operate both on and off installations. It is unique because DoD forces are normally associated with operations overseas, and also because of federal law prohibits the military from conducting active operations in the United States. Posse Comitatus, otherwise known as 18 U.S. Code § 1385, prevents "execution of the laws includes the arrest or detention of criminal suspects, search and seizure activities, restriction of civilian movement through the use of blockades or checkpoints, gathering of evidence, and certain uses of military personnel as undercover narcotics officers".⁵¹ That said, on average the Department of Defense responds to requests from civil authorities for Explosive Ordnance Disposal Support over 800 times per year.⁵² When

called, EOD will support explosive emergencies but are not allowed to search for explosives or gather explosive evidence.

The Department of Defense is required to respond to explosive emergencies under immediate response authority in accordance with DoDI 3025.21 when requested by federal, state, and local agencies. When a military munition is discovered by a government agency they are trained to call the nearest military EOD unit for support. These civilian agencies rely on DoD to provide explosive response in a timely manner.

DoD responses to explosive threats have declined since 9/11 for a variety of reasons. The primary reason is absence of available forces. Until 2013, the Army was the service responsible for all military EOD responses throughout the United States. During the surges in Iraq and Afghanistan, DoD EOD units were deployed overseas, making their availability to civilian agencies unreliable. In FY07, the Army began to consolidate EOD forces that were located on 36 installations geographically dispersed across the U.S. onto eleven military bases as a result of 2005 Base Realignment and Closure Act (BRAC) in an attempt to better prepare maneuver forces to conduct counter IED operations while deployed. The result left civilian law enforcement and DoD installations without EOD units to find other support options, such as contractor support, thereby costing the Department of Defense millions of dollars annually.

Additionally, EOD response vehicles and equipment such as robots, communications, and electronic countermeasures have not been standardized to be interoperable with civilian counterparts. This fact is highlighted annually when the Military EOD and Public Safety Bomb Squads train together during Exercise Raven's Challenge. Exercise Raven's Challenge is an annual interoperability exercise located at

four locations nationwide, incorporating federal, state and local bomb squads with Military EOD units from all four services. Post exercise reports raise concerns of robot and countermeasure interoperability, as well as communication interoperability increase.⁵³

The consolidation of EOD units puts lives in danger. TRADOC installations, Army Material Command Test Installations, as well as munitions storage depots are left without dedicated EOD support. Government agencies that relied in the past on the military to respond are left to find other solutions for explosive hazards. While it is the responsibility of the military to respond when called, it simply isn't as practical as it once was due to time and distance factors. Although civilian law enforcement has closed some of the capability gap, with the exception of a few large metropolitan areas, the United States depend on its military to respond. This was demonstrated at Boston, when capabilities were instantly overwhelmed.⁵⁴

Boston Bombing Response

During the Boston Bombing response, Military Bomb Technicians from the Massachusetts Army National Guard, Air Guard, and U.S. Navy responded to approximately 68 suspicious device calls.⁵⁵ Additional calls were provided by federal, state, and local public safety bomb squads. The EOD command and control was very successful as an EOD command was quickly established, but the active duty military responders lacked appropriate authorities to continue providing support, such as conducting searches for explosive threats or supporting checkpoint operations. Active duty military EOD were required to re-deploy after the second day due to a lack of response authorities.⁵⁶ In addition to the multiple suspicious package calls, many explosive device search requests were made. The military cannot search without the

President's or Secretary of Defense's approval as it is violation of Posse Comitatus.⁵⁷

The inability to call for additional assets was identified in the After Action Report. It stated "there needs to be a planned process that provides for immediate response from nearby agencies."⁵⁸

The study concludes the Department of Defense does not have the authorities to provide resources during an emergency absent Presidential or SECDEF approval, which may not be authorized in a practical or timely manner. There are many exceptions to the Posse Comitatus Act, such as counter drug operations, border protection operations, weapons of mass destruction response and protecting the President, however there are no exceptions for counter bomb operations.⁵⁹ In order to change the policy to allow for counter bomb operations, Congress would have to amend the Posse Comitatus Act.

Capability Gap Growth

The pre 9/11 history of IEDs was significant in U.S. history. That said, the post 9/11 America was revolutionary for IED defeat technology, material development, and spending. It is estimated that the Department of Defense spent over \$75 billion to counter IEDs on the battlefield.⁶⁰ Organizations were created within DoD to supply material and training to help defeat the threat. Today the Department of Defense is better equipped to handle the IED threat than it was in 2002, however counter-IED (CIED) technologies fielded in theater, such as electronic counter measures, and CIED pre-deployment training were cut following the Iraq and Afghanistan drawdowns. In addition, the EOD units created to handle the IED threat for the next conflict were cut by a third due to the Budget Control Act of 2011. In the case of similar overseas contingencies where the threat of IEDs exist, this now leaves the Geographic

Combatant Commands with less trained and equipped forces available to neutralize explosive hazards, similar to what was experienced from 2002-2010.

The primary organization responsible for synchronizing IED defeat efforts within the Department of Defense was the Joint Improvised Explosive Defeat Organization (JIEDDO). JIEDDO grew from a 10 person task force in October 2003 to 3000 personnel in 2006 with an annual budget of \$3.7 billion.⁶¹ Today, JIEDDO has been re-designated as the Joint Improvised-Threat Defeat Agency (JIDA) and reduced to 1000 personnel with a \$500 million dollar budget.⁶² By the end of 2016, JIDA will change from a Combat Support Agency to an office within the Defense Threat Reduction Agency.⁶³ In the 2016 National Defense Authorization Act, Congress reduced their funding to zero.⁶⁴ Given Congressional and Department of Defense actions, it appears as both see the IED threat going away. According to the National Consortium for the Study of Terrorism and Response to Terrorism, IEDs were used in 207 terrorist plots in the United States from 2001-2011.⁶⁵ Following the Boston attacks, law enforcement officials predicted there will be a rise in bombings within the U.S. It is also expected that IEDs will be used by the enemy in future conflicts. There are currently 21 non-DOD federal programs supporting IED defeat national policy within the Interagency.⁶⁶ While there is published national strategy, it appears the Department of Defense is not synchronized with it.

Recommendations

The first recommendation is a change to the Posse Comitatus Act to insert Counter-bomb exception language much like counter-drug and border control operations. This proposal would offer an exception to the Act that allows for Department of Defense EOD assets to provide assistance to civilian government agencies, using

their full capabilities. Many elected representatives in Congress agree military EOD should be allowed to respond. Representative Michael McCaul of Texas was quoted as saying "To me it's crazy that the guy who is the expert on IEDs overseas can't coordinate with the Texas Rangers...The military is unable to coordinate with state and local law enforcement, leaving a gaping hole in our security."⁶⁷ Arkansas Representative Rick Crawford's testimony to the House Armed Services Committee during the 2015 National Defense Authorization Act was quoted as saying "it is vital that...our EOD forces provide increasingly needed and immediate support to our civilian law enforcement agencies".⁶⁸

Congress should authorize merging JIDA and the Joint Program Office for Countering IEDs (JPO-CIED), creating an interagency organization with a line of accounting. Combining the civilian and military explosive response enterprise effort would create efficiencies in technology development and standardized training. It would also coordinate the 21 government agencies and multiple industry partners focused on the counter-IED enterprise. Presidential Policy tasks the JPO-CIED organization as responsible to "coordinate and track progress across the departments and agencies toward building these capabilities....and also provide metrics and assist departments and agencies in coordinating their priorities", however offers no means to do so. The addition of an accounting line to fund interoperability exercises, research and common technology and training would synchronize efforts within the interagency reducing redundant capabilities and efforts.

Streamlining government efforts would reduce redundancy and save taxpayer dollars. A 2010 Government Accounting Office Report found there are legacy redundant

capabilities that exist between the FBI and ATF.⁶⁹ The GAO report determined defining the lead federal agency jurisdiction caused confusion among federal, state and local law enforcement.⁷⁰ Representative Crawford highlighted the same efficiency concerns within the Department of Defense. He recommended “the Secretary of Defense to Establish a Program Element on “Emerging Threats – Explosive Ordnance” under the Office of Secretary of Defense, Special Operations and Low Intensity Conflict (SOLIC)”.⁷¹ Establishing lead federal and lead defense organizations that are combined and synchronized would increase interoperability.

Explosive enterprise stakeholders share many of the same material solutions. Ensuring interagency and Department of Defense material interoperability profile (IOP) compliant equipment compatibility would save the taxpayer millions and create much more interoperable environment. The balance of defending the homeland and limited budget resources remains a challenge for the Department and Interagency. There are two specific examples of why material compatibility is critical with regard to response, robotics and Electronic Counter Measures.

Robotic standardization will increase interoperability and reduce cost. The Joint Program Office (JPO) for Robotics is leading the Department of Defense’s development of ground robotic platforms. Since 2002, JPO Robotics estimates the Department of Defense has spent over \$700 million dollars for 7500 commercial off the shelf platforms. The robots were fielded to all the services to all types of military units. The open architecture built into these robots ensures compatibility when multiple robots are used in the same area. It also ensures when they are used in conjunction with communications and electronic countermeasures equipment, they function properly.

The challenge is none of it is compatible with civilian first responder equipment due to frequency conflicts and technology gaps.

Designating the Communications and Electronics Command (CECOM) as the lead federal agency for ground electronic countermeasures would ensure that military and civilian responders have interoperable equipment programmed for the latest threats. Electronic Counter Measures (ECM) are jammers that create a safer working environment for first responders. EOD and public safety bomb squads rely on countermeasures for protection against IEDs at home and abroad. Currently military and civilian ECM is not interoperable and in many cases not available. The federal ECM program is managed in conjunction with the Federal Bureau of Investigation.⁷² CECOM and the federal ECM program need to ensure electronic counter measures are standardized and fielded for to all bomb squads in the U.S.

The Secretary of the Army should consider reversing the cuts to EOD force structure and relocate Army EOD units to better serve the whole Department and the Interagency. In 2013 the Army completed Total Army Analysis which eliminated 980 Army EOD positions, roughly 1/3 of the force. This was after revolutionary growth from 2004-2011 due to an unprecedented loss of life and equipment due to IEDs in Iraq and Afghanistan. The next conflict will see a delayed EOD response due to the cuts, putting lives at risk.

EOD formations should be relocated across the Army to pre-9/11 locations to increase safety and save the Army millions of dollars per year by eliminating travel costs and contract support. Since Army EOD units were consolidated, the Army has spent millions of dollars keeping an EOD platoons on temporary duty status to respond to

explosive incidents on and around the busy training bases, depots and test sites. Depots at Anniston, Umatilla, and Pine Bluff Arsenal have spent millions contracting EOD support when it used to be free. Test centers such as Aberdeen, Redstone, and White Sands additionally have spent millions contracting EOD support for government test operations when it used to be provided at no cost. Additionally, large National Guard training facilities at Camp Shelby, Fort McCoy, and Fort Indiantown Gap are without EOD support, disrupting training and mobilization activities.

Finally, interoperability training between military and public safety bomb squads must be sustained. Following the Boston Bombings, the FBI Deputy Director met with Vice Chief of Staff of the Army. Following that meeting the Army G3, in conjunction with the ATF and FBI sponsored a large Public Safety Bomb Squad, Military EOD interoperability exercise. In June 2015, New York Governor Cuomo announced that “bomb squads, explosive detection canine teams, and tactical teams representing groups from New York and several states, federal entities, and Canada are participating in the Raven’s Challenge emergency response training...designed to enhance cooperation between public safety bomb squads and military explosive ordnance disposal technicians”.⁷³ Federal funding to this program should be programmed in the base budget for the Department of Defense as it is the only exercise of its kind that “provides national-level leadership an opportunity to monitor events as they unfold and make preemptive decisions to lessen the impacts of a potential IED campaign.”⁷⁴

Conclusion

“The Boston bombings serve as a stark reminder of the threat of the terrorist detonation of explosives in the United States and have revealed gaps in the Nation’s ability to defeat a sustained bombing campaign in the homeland”.⁷⁵ Since the three

years that passed since Boston, there have been advances in cooperation and interoperability, but the programmatic, authorities and policies between the Department of Defense and Interagency have not kept up with the threat or with Presidential Directives. Information sharing, equipment moderation and exploitation capabilities must be better coordinated between the Department of Defense and the Interagency to realize whole of government efficiencies.

Department of Defense Explosive Ordnance Disposal response is needed by the Interagency, but better efficiencies from the explosive enterprise stakeholders must be gathered and embraced. Both federal law and Department of Defense policies and instructions must be updated to focus on all threats and the lessons learned with blood and treasure must not be forgotten.

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