PREVENTING AN IMPROVISED EXPLOSIVE DEVICE (IED) TERROR CAMPAIGN IN THE UNITED STATES

by

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This thesis will propose how to prevent a domestic IED terror campaign by utilizing the intelligence triggers indications and warnings, and open source intelligence as well as placing increased emphasis on the importance of international and interagency cooperation.

The benefits of this thesis could be the development of a methodology for intelligence sharing between federal agencies, state authorities, and local U.S. law enforcement personnel against an aspect of terrorism that has not yet affected America.
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ABSTRACT

U.S. Counter IED (C-IED) efforts continue to be directed at combating IEDs in Iraq and Afghanistan; however, as terrorists broaden their target selection standards, so too should the U.S. broaden its C-IED efforts. IED attacks and IED terror campaigns are currently occurring all over the world, yet America is unprepared to prevent an IED terror campaign in the homeland.

This thesis will propose how to prevent a domestic IED terror campaign by utilizing the intelligence triggers indications and warnings, and open source intelligence as well as placing increased emphasis on the importance of international and interagency cooperation.

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It is my hope that the time and effort spent on this thesis will assist the United States in preventing an IED terror campaign on American soil.
I. INTRODUCTION

A. THE PROBLEM

Since September 11, 2001, America has been facing new and difficult challenges to its national security, specifically homeland defense and security. Homeland security issues have transformed from defending against conventional militaries and nation states into defending against unconventional threats executed by non nation state actors. America must prepare to defend against threats and terror campaigns executed by determined terrorists, both foreign and domestic. On 9/11, it was made abundantly clear that America was no longer protected by two vast oceans and two friendly neighbors. Terrorists are capable of executing catastrophic attacks or terror campaigns on American soil using resources and planning from within the continental United States. For a possible weapon or tactics, terrorists need to look no further than the headline news to determine that an Improvised Explosive Device (IED) would be an ideal weapon in launching a terror campaign within the United States. Amazingly terrorists only need the Internet and a few household chemicals as a resource to execute IED attacks.

The IED is most commonly defined as “a device placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic, or incendiary chemicals and designed to destroy, incapacitate, harass, or distract. It may incorporate military stores, but is normally devised from nonmilitary components.”

With the success insurgents have achieved using IEDs in Iraq and Afghanistan, the popularity of these devices has spread rapidly around the Middle East and throughout the world. “January 2007 witnessed the highest

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1 Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, April 12, 2001 (as amended through June 13, 2007), 252.
number of worldwide IED incidents (outside Iraq) with 305.”² It is not difficult to understand why IEDs have increased in popularity as the weapon of choice by terrorists. “They are cheap, easy to make and hide, and their employment tactics techniques and procedures are very flexible and difficult to counter.”³ The execution of an IED terror campaign within the United States would not require a large number of incidents or fatalities in order to paralyze the nation with fear; “the sense of vulnerability from an unseen enemy created by the employment of IEDs provides a much greater effect.”⁴ The bottom line is America is not prepared to prevent an IED terror campaign and the threat is all too real.

1. Literature Review

There is little unclassified scholarly work done on how information and intelligence designed to combat IEDs can be gathered and shared between Federal, State, local, and tribal personnel. Despite this lack of scholarly research on that specific topic, certain schools of thought can assist in understanding why information is not being shared, and what elements of cooperation, if properly exercised, can assist U.S. authorities in preventing an IED terror campaign in America.

Since IEDs are the leading killer of coalition soldiers in Iraq, the Department of Defense has expended much effort and resources to defeat these lethal devices.⁵ Recognizing that IEDs were a new threat facing service


⁴ Ibid., 2.

members in Iraq and Afghanistan, DoD created the Army IED Task Force in October 2003, which has since evolved. In January 2006, DoD created the Joint IED Defeat Organization (JIxEDDO) to manage IED information and develop countermeasures “in support of the Combatant Commanders’ and their respective Joint Task Forces’ efforts to defeat the Improvised Explosive Devices as weapons of strategic influence.”

DoD efforts to combat IEDs will and should continue to be focused primarily on Iraq and Afghanistan; however, little effort has been made to develop effective measures to prevent IEDs from being used in the United States.

Terrorist use of crude IEDs have been documented in America, but in most cases over the past few decades they have been used as a weapon of the anti-abortion or environmentalist movement activists and not as indiscriminant or random weapons of terror. However, it is likely only a matter of time before sophisticated terrorist movements use these lethal devices indiscriminately in America against American citizens.

Unfortunately, the information from all the DoD research and development done on understanding and defeating these devices abroad remains stove piped and is not fully shared with all appropriate Department of Homeland Security and law enforcement organizations responsible for protecting the homeland. Vast amounts of intelligence that could assist in preventing an IED terror campaign is available using open sources such as the Internet, yet leveraging these open sources has not been fully absorbed by domestic intelligence or law enforcement personnel. Obviously not all Department of Defense Tactics, Techniques and Procedures are applicable to defending America against an IED threat, but sharing available JIEDDO knowledge as well as knowledge and assets from the

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intelligence community would be a valuable start and could significantly narrow this intelligence gap and help prevent an IED terror campaign in America.

This section will discuss three schools of thought that contribute to understanding substandard information sharing. The first school of thought is primarily concerned with organizational politics, the second school deals with the ability to share information with other organizations with personnel with different levels of security clearances. The third school of thought is concerned with ineffective communication between involved organizations. Existing research literature regarding the first school of thought states the political and organizational failure to share information is attributed to factors such as “agencies generally engaging in cooperative action only when there is also some reasonable expectation of achieving self interest goals…internal benefits, improve its public image, or expand its influence over others.”

The second school of thought is concerned with the ability to share secret information among organizations where individuals possess different levels of security clearances. Sharing secret intelligence with agencies or individuals who do not hold the appropriate clearances and whose facilities lack the appropriate security accreditation is an aspect of security that has and will likely always be present. However, literature by the United States government accountability office studying this problem suggests the issue can be overcome in regard to homeland security as evidenced by the Coast Guard’s efforts with regard to maritime security.

The third school of thought of ineffective communication has been addressed by existing literature relating directly to combating the IED threat within the Department of Defense. “The quick and informal nature in which many

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of the counter IED cells were created was not conducive to the long term storage and retrieval of the information for future use.”\textsuperscript{10} Because of the hasty manner in which these organizations and task forces were created to meet the rapidly growing threat they were not built to complement each other and often existed without the knowledge of other organizations doing similar research and analysis. “At one point over 300 organizations were producing products focused on the counter IED effort” but due to ineffective communication these organizations were not learning from and building off the efforts of each other. \textsuperscript{11}

Since 2006 JIEDDO has assumed the role “as the focal point for all efforts in the Department of Defense to defeat Improvised Explosive Devices” and there has been significant progress made in sharing this valued information.\textsuperscript{12} This improvement is promising, but again these efforts are focused on protecting service members overseas from IEDs, not on protecting citizens in America from terrorists using IEDs.

The problem addressed in this thesis is the lack of preventive planning, coordination, and overall defense against an IED terror campaign in the United States. It would be beneficial to have systems in place for our government and law enforcement personnel to prevent, and if necessary, respond to an IED terror campaign before our citizens or law enforcement personnel are attacked and America’s economy and society are forced to react to a new terrorist threat.

\textsuperscript{10} Lepore, 5.
\textsuperscript{11} Ibid., 5.
B. RESEARCH QUESTIONS

This thesis will answer the following questions:

1) Have any terrorist or criminal organization shown interest in using IEDs in America?

2) What lessons can be learned and applied from instances of IED terror campaigns against other nations?

3) Should, or can, indications and warnings (I&W) and open source intelligence (OSINT) provide a significant piece of the answer to combating a domestic IED threat?

4) Would a domestic IED terror campaign be more likely or lethal without effective international and interagency cooperation?

These questions will be revisited and answered in the concluding chapter complimented with recommendations on how to prevent an IED terror campaign in the United States.

C. ORGANIZATION OF THESIS

This thesis will examine the evolution of the IED terror threat, previous counter IED efforts (C-IED) both foreign and domestic, and a proposed solution to prevent an IED terror campaign in the United States. The organization is intended to make the reader aware of the broad global IED threat by discussing the background of the threat and C-IED efforts in foreign countries and America. The focus will then narrow to how the U.S. federal, state, and local authorities can prevent an IED terror campaign in America. Chapter II is designed to help readers understand the threat focusing on asymmetric warfare, economical factors, effectiveness of the device, psychological, and propaganda effects of IEDs, recruitment factors, as well as explaining why it will likely happen in America. Chapter III discusses the IED terror threat and response in Britain, Spain, and Israel where IEDs are commonly used by terrorists. Chapter IV
covers the evolution of U.S. C-IED efforts for the military and for homeland security. Chapter V details the recommendations and the conclusion by discussing intelligence triggers, interagency and international cooperation, answering the posed research questions and instilling a sense or urgency to implement the recommendations made before America is the victim of a paralyzing IED terror campaign.

D. PROPOSED SOLUTION

As DoD and JIEDDO continue to develop C-IED capabilities for the military in Iraq and Afghanistan and for future conflicts, so too must the government develop countermeasures for a domestic IED threat. This thesis will propose how to prevent a domestic IED terror campaign by utilizing the intelligence triggers indications and warnings, and open source intelligence as well as placing increased emphasis on the importance of international and interagency cooperation. The benefits of this thesis could be the development of a methodology for intelligence sharing between federal agencies, state authorities, and local U.S. law enforcement personnel against an aspect of terrorism that has not yet affected America.
II. EVOLUTION OF THE IED TERROR THREAT

In order to combat a threat there must first be a thorough understanding of the threat. In the case of IEDs, it is not only important to understand current tactics, techniques, and procedures of the devices employment, it is important to understand the history and significant aspects of the threat. This chapter provides the background necessary to help understand the IED threat facing the United States.

A. DEFINING THE THREAT

As defined by DoD in the introductory chapter, an IED is “a device placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic, or incendiary chemicals and designed to destroy, incapacitate, harass, or distract. It may incorporate military stores, but is normally devised from nonmilitary components.”13 If the definition is not vague enough, to further complicate matters there are three general categories of IEDs. The first category is package IEDs. Roadside bombs and IEDs placed inside backpacks for use on a bus such as the case in the 2004 Madrid train and 2005 London subway / bus bombings are examples of package IEDs. The second category is Vehicle Borne IEDs. This second category is essentially a car or truck bomb, however, when an individual is in the vehicle when the IED is detonated the IED is considered a suicide VBIED. The third and final category is Suicide Bomb IEDs.14 This category of IEDs encompasses the use of IEDs through suicide vests, backpacks, or any instance when the IED is placed on or very near the suicide attacker.

13 Department of Defense Dictionary of Military and Associated Term, 252.

While this thesis is primarily concerned with package type Improvised Explosive Devices and Vehicle Borne Improvised Explosive Devices, the reader must also be cognizant of the suicide bomb IED which could potentially be used as it has been in Israel and Britain.

The potential IED threat in America is vastly different from the IED threat posed to service members in Iraq and Afghanistan. In Iraq and Afghanistan for example, IEDs are used as a counter mobility weapon and attrition weapon. IEDs are also used for elaborate propaganda, fund raising, recruiting and to undermine the morale of opposing forces. In America, however, the primary reason for terrorists to utilize IEDs would be to create terror. This is not to say a successful attack would not help with recruitment or lower the morale of U.S. citizens because it would; but the reasoning for using IEDs in America is fundamentally different from why IEDs are used in Iraq and Afghanistan.

B. UNDERSTANDING THE THREAT

To fully comprehend the IED threat posed to the United States homeland one must first understand the threat as it has existed throughout history and most importantly today in Iraq and Afghanistan. The reason IEDs must be understood as they exist in Iraq and Afghanistan today is because Islamic extremists pose the greatest threat to America. While organizations such as the IRA use VBIEDs, the likelihood of the IRA or another organization attacking the United States using IRA TTPs is unlikely. After examining the fundamentals of IED usage in Iraq and Afghanistan, the similarities and differences of who, what, when, and why can be evaluated in comparison to the United States.

Before discussing the main differences of an IED threat in America and Iraq and Afghanistan, the similarity between the three should be identified. The similarity would be the target of the attack, because in both circumstances the target is usually iconic / symbolic. In Iraq and Afghanistan the iconic targets tend to be military or religious in nature, individuals and their mosques of a certain sect, Iraqi Security Forces (ISF) personnel or operating bases, buildings
developed with U.S. direction or assistance, government buildings, areas of commerce, etc. A terror campaign in America would likely target commercial, religious, or other iconic targets. Likely targets in America include government buildings, malls, professional sporting events, financial institutions, and of course large numbers of American civilians. The logic behind iconic targets is not too difficult to understand. Attacks against such targets would be highly publicized, rewarding the terrorists with “the biggest bang for the buck” so to speak.

Now that some of the similarities have been highlighted, it is beneficial to highlight some of the differences. The most important of all considerations is determining at what level of capacity the perpetrators will most likely be able to operate. In this respect, the operating tactics terrorists would likely employ in America would vary significantly from the standard operating procedures insurgents use in Iraq and Afghanistan. In Iraq and Afghanistan, most individuals involved with IED operations are linked by a complex tribal or family affiliation or something of the sort, as part of a larger IED network. Furthermore, there are thousands of willing participants, both Iraqi and foreign, to assist in terrorist activities in the war in Iraq. With the overwhelming number of volunteers it is no surprise that there is popular support in Iraq for IED operations and as a result the ease and simplicity of which terrorists can perform IED attacks plays in their favor. Despite the large number of willing and capable terrorists to perform these attacks, the IED cells usually consist of only a five to ten man team. The size of the basic IED element is the only similarity the U.S. would likely see if an IED attack occurs. In America there will be no vast popular support network for an IED terror campaign, and there definitely are not thousands of volunteers ready to perform such attacks. However, there are some disgruntled individuals in this country who could perform IED attacks. How these individuals find each other would differ greatly from Iraq and Afghanistan. The chances of their being a large family or tribal involvement between the perpetrators of a terror campaign in America is unlikely. Odds are the individuals involved will find each other in a social network manner or will be recruited in prisons.
The largest single reason America might be able to prevent an IED terror campaign is the fact that terrorists often broadcast their intentions. In Iraq and Afghanistan, IEDs occur every day executed by many different groups of individuals on a wide array of targets. With IED attacks an every day occurrence committed by such a large number of actors, the perpetrators do not need to broadcast intentions of attack sites and personnel in Iraq. In contrast, Al Qaeda and other radical Islamist terrorist organizations engage in extensive propaganda and may telegraph their intentions for supporters and financiers.

Another large difference would be the type of IED constructed and used in America compared to Iraq and Afghanistan. In Iraq and Afghanistan, IEDs are commonly built out of discarded military ordnance and a small percentage are expertly constructed devices such as an Explosively Formed Projectile (EFP) in order to penetrate armored vehicles. Obviously, terrorists in the United States would have a more difficult time getting access to military ordnance, also there is no need for them to have an IED capable of penetrating up armored vehicles. When the goal of an IED attack is a terror campaign and not destructing American military vehicles, simple household chemicals and materials are more than adequate to accomplish the task. To create an IED for use in America, a terrorist would only need items available at a Home Depot store.

1. Asymmetric Threat

Terrorist organizations by their very nature are left with no viable option but to use asymmetric weapons and tactics in their operations. Terrorists do not have the capabilities to terrorize U.S. citizens using conventional weapons of war such as tanks, aircraft, and howitzers. As a result if terrorists wish to impose fear on America or any enemy who is technologically superior they are forced to use asymmetric weapons and tactics.

The benefit of using an asymmetric threat to terrorize a society is the widespread fear generated which encompasses more than the victims of the attack. The goal of the 4th generation warfare tactic is to undermine the
legitimacy of the government being targeted through terrorizing its citizens. The Bush administration has been under pressure to reduce troop strength in Iraq and Afghanistan due to the perception that little progress has been made in the region and the conflict continues to be drawn out. Coupled with the fact that IEDs are the largest killer of service members overseas, an IED terror campaign in America would certainly play into the 4th generation tactic and possibly increase pressure against the current administration.

2. Economical and Effective

One reason IEDs are an ideal weapon for terrorists to execute a terror campaign is that they are extremely cost effective and yet can achieve devastating casualties and instill widespread fear. IEDs can be constructed out of any number of household items so the economic benefit alone for using these devices might be reason enough for a terrorist to pursue an IED terror strategy. When one combines the low costs of building an IED with the effectiveness of the devices, their appeal is obvious.

With regard to the IED’s effectiveness, one should look at it two ways. First is the ability of the devices to cause fatalities and destruction. Take for example the 1995 Murrah Federal building bombing in Oklahoma City by Timothy McVeigh. A second reason an IED can be effective is because of the widespread terror it imposes on a society. Knowing an attack can occur anywhere at anytime is enough to paralyze a society with fear. Those who doubt this need only to look back at the random yet persistent threat the D.C. snipers imposed on D.C. and surrounding areas. John Muhammed and Lee Malvo in 2005 killed only ten individuals with a rifle in three weeks yet managed to cause such a state of fear that parents were keeping their children home from school and hiding behind their cars when filling up with gas.
3. The Psychological and Propaganda Effects of IEDs

IEDs can be an effective weapon in a terror campaign in the United States. IEDs can have a devastating psychological impact especially when used in conjunction with propaganda or even a crude IO campaign.

“While IEDs typically do not inflict mass casualties, they create an atmosphere of insecurity, fear and demoralization in the region they are employed.”15 This fear is magnified more in a country where the population live their lives relatively free of fear, such as the United States, as opposed to a country where the population live in a constant state of fear, such as Israel. Obviously a suicide bomber attack at a mall in Chicago will have a greater psychological impact on the citizens of Illinois and the United States than a suicide bomber attack on Israelis in a market place in Israel.

Another reason there would be a greater psychological impact on Americans would be due to media coverage. Not only have terrorists become extremely effective with the use of propaganda both before and after an attack, the 24 hour American media coverage would flood the airwaves with raw, detailed footage entering the living rooms of households across the country. The impact of the 2005 sniper attacks in D.C. and surrounding areas by John Muhammed and Lee Malvo should again be used as a guide. The media gravitated toward the sniper attacks not because of the number of resulting fatalities but because they were asymmetric, random, and could happen to anybody. As a result the attacks were broadcast around the country.

If an IED terror campaign was executed in a manner similar to that of the Washington D.C. snipers, and possibly on a broader scale, those responsible would likely have video of the pre-attack effort posted on the Internet before any kind of governmental response to the attack was possible.

15 Lepore, 9.
The extensive media coverage would report the attack and its results in a manner that would benefit the attackers of the terror campaign.16

4. Recruitment

For the United States to be successful in preventing an IED terror campaign, our government and law enforcement officials must have a thorough understanding of why and how an individual can be driven to perform terrorist acts and where these terrorists are being recruited. The former Director for Britain’s Security Service (MI-5) responsible for protecting the United Kingdom against threats to national security assessed what motivates Islamic extremists. Dame Eliza Manningham-Buller, assessed that Islamic extremists are “motivated by a sense of grievance and injustice driven by their interpretation of the history between the West and the Muslim world.”17 Current U.S. policy in Iraq, Afghanistan, and Israel is viewed by many Muslims as anti-Muslim and has aided terrorists in their recruitment efforts.

Under the assumption that extremists are driven by the injustice between the West and the Muslim world, Manningham-Buller explains that “more and more people are moving from passive sympathy towards active terrorism through being radicalized or indoctrinated by friends, families, in organized training events here (England) and overseas, by images on television, through chat rooms and websites on the Internet.”18

In addition to the methods of radicalization or indoctrination mentioned by Manningham-Buller, Michael Waller testified before the subcommittee on terrorism, technology, and homeland security, “on terrorist penetration of the U.S. military and prison systems via corruption of the chaplain programs, and how it fits in with a larger foreign-sponsored campaign to build terrorist support

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16 The chapter title and subtitles of this chapter mirror Chapter II of Lepore’s master’s thesis.


18 Ibid.
networks inside this country.” Amazingly Waller discovered “foreign states and movements have been financing Islamism within America’s armed forces and prisons which preaches intolerance and hatred of American society, culture, government, and the principles enshrined in the U.S. Constitution and whose adherents directly and indirectly spawn, train, finance, supply and mobilize terrorists who would destroy our system of government and our way of life.”

Perhaps the issue is not where extremists are recruiting because the answer appears to be everywhere, but what is the best way to counter recruitment propaganda.

C. AN ENDURING THREAT

The use of IEDs has been a significant and very real threat worldwide for several decades. The IRA use of IEDs in Northern Ireland has been well documented since the 1970’s; by the Red Army at Ramstein Air Force base in 1981; the U.S. embassy in Beirut by Islamic Jihadists in 1983; and recently in London in 2005 to name a few. Although IEDs have been used as a terrorist weapon in recent decades, to date IEDs have not posed a significant threat to the United States. However, since the first American casualty from an IED attack in Iraq in mid-2003, terrorists and future adversaries of the United States have been taking particular notice of the device. Our future adversaries have been investigating how IEDs could be a beneficial weapon against the U.S. military. Even more troubling is the fact they have been exploring using these devices for use against civilian populations, as evidenced by the recent attacks in Britain and Spain.

With the successful use of IEDs in Iraq and Afghanistan against both military and civilian targets, and with the U.S. military’s difficulty countering the insurgents’


20 Ibid.
IED tactics, techniques and procedures, the United States should expect to encounter the use of IEDs in America primarily as a weapon for a terror campaign.

D. WHY IT WILL HAPPEN IN AMERICA

The most compelling reason IEDs will be used in America is because America is leading the effort in the global war on terror, and as a result has become a symbolic target. Additionally it will happen because of all the reasons discussed in the thesis up to this point: IEDs are cheap, easily built out of household goods, and effective in the sense of destructive capabilities and psychological impacts on the intended targets. Additional reasons IEDs will be used in America can be found by looking at how they have been used earlier. It is beneficial to highlight how and when IEDs have been used in America in the past and who has publicly stated their intentions of using IEDs or performing a terror campaign in the United States.

1. Historical Examples

There have been literally hundreds of recent IED attacks in the United States. IEDs have been most commonly used by members of several organizations such as the Animal Liberation Front (ALF), Earth Liberation Front (ELF) and members of various anti-abortionist movements, for example the Army of God.

While these organizations claim responsibility for the majority of these types of attacks, the most devastating and well known IED attacks have come from the “Liberation Army Fifth Battalion” and Timothy McVeigh’s attack in 1995. The threat America must prepare to prevent today and in the future comes primarily from Islamic extremists. The Liberation Army Fifth Battalion was responsible for the first attempt to bring down one of the World Trade Center towers on February 26, 1993. Timothy McVeigh is responsible for parking a truck bomb outside of the Oklahoma City Murrah Federal building and claiming
168 lives. The following is an example of some of the IED attacks which have occurred on American soil since the McVeigh attack in 1995.

- Animal Liberation Front (ALF) attacked Business target (Mar. 12, 2000, United States)
- Animal Liberation Front (ALF) attacked Business target (Mar. 27, 1999, United States)
- Army of God attacked Abortion Related target (Jan. 29, 1998, United States)
- Earth Liberation Front (ELF) attacked Business target (Dec. 25, 1999, United States)
- Earth Liberation Front (ELF) attacked Educational Institutions target (May 21, 2001, United States)
- Earth Liberation Front (ELF) attacked Other target (May 21, 2001, United States)
- Earth Liberation Front (ELF) attacked Private Citizens & Property target (Dec. 19, 2000, United States)
- Earth Liberation Front (ELF) attacked Private Citizens & Property target (Dec. 29, 2000, United States)
- Earth Liberation Front (ELF) attacked Private Citizens & Property target (Dec. 9, 2000, United States)
- Other Group attacked Abortion Related target (Jan. 16, 1997, United States)
- Other Group attacked Business target (Feb. 21, 1997, United States)
- Other Group attacked Business target (Feb. 13, 1997, United States)
- Revolutionary Cells Animal Liberation Brigade attacked Business target (Sept. 26, 2003, United States)
- Unknown Group attacked Abortion Related target (June 11, 2001, United States)
- Unknown Group attacked Business target (Aug. 28, 2003, United States)
- Unknown Group attacked Business target (Jan. 12, 2005, United States)
- Unknown Group attacked Business target (Nov. 1, 1999, United States)
- Unknown Group attacked Government target (Nov. 5, 2001, United States)
- Unknown Group attacked Private Citizens & Property target (Dec. 27, 2004, United States)

Figure 1. Examples of IED attacks on American soil from the Memorial Institute for the Prevention of Terrorism (MIPT) Knowledge Base

Fortunately, America has yet to experience an IED attack similar in nature to the subway bombings in London on July 7, 2005, perpetrated by Islamic Extremists in Europe. However, IED attacks have occurred in the United States over the past several decades and many non-state actors possess the intentions to attack and terrorize America; therefore the realization of the threat is becoming more self evident.
2. Intentions

Since well before September 11, 2001, America has known the U.S. is a target for terrorist organizations. The fact that America is concerned about future attacks is evident by improvements made in aviation security, maritime security, and critical infrastructure protection. Intentions to attack America are being initiated by Osama Bin Laden and attacks can be carried out by Al Qaeda, Al Qaeda splinter organizations, or any other extremist terrorist organization.

An indication that the current administration is concerned that terrorist organizations may use IEDs, is the new Homeland Security Presidential Directive (HSPD) 19 which “establishes a national policy, and calls for the development of a national strategy and implementation plan, on the prevention and detection of, protection against, and response to terrorist use of explosives in the United States.”21 In February, 2007 when the Presidential directive was issued, the White House was conducting a rehearsal for a domestic IED attack.

Not all of the American public recognizes the intentions held by terrorist organizations to perform an IED terror campaign; however, our Government acknowledges the threat and the initial phases of understanding the threat and evaluating our countermeasures are occurring.

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III. IED TERROR THREAT AND RESPONSE IN FOREIGN COUNTRIES

One way to better understand the threat suicide bombings and other forms of IEDs pose to America is to study how they were employed in foreign countries. Such understanding is paramount if America is going to be successful in preventing an IED terror campaign against the homeland. Britain, Spain, and Israel all have experience with combating an IED threat posed by Islamic extremists and much can be learned from their experiences. Although there are dozens of countries that must contend with an IED threat, Britain, Spain, and Israel were selected for case studies because of their similarities to American society. Any major U.S. city could be the scene of the next London, Madrid, or Tel Aviv type attack.

A. BRITAIN

Britain has several decades of experience combating the IED threat posed by the IRA, and as of July 2005, the British have experience combating the IED threat posed by Islamic extremists. A summary of the July 7, 2005, London bombings will serve as an example of the threat posed to Britain. Portions of the subsequent July 21, 2005, attempted attack will also be discussed to assist in fully understanding the threat as part of a campaign.

1. Background of Perpetrators

The background of the terrorists responsible for the London attacks should be of particular importance to American authorities. All of the terrorists involved were “homegrown”, but did have ties to Pakistan. Three of the four suicide bombers involved were British nationals of Pakistani origin and the fourth bomber
was British of west-Indian origins.\textsuperscript{22} None of the terrorists had criminal records and three of the four did not register on any intelligence watch lists.\textsuperscript{23} All lived middle class lives and were radicalized through an Islamic youth center.\textsuperscript{24} One of the terrorists, Mohammad Siddeque Khan, explained his reasoning for the attack in a farewell video message. “Until you will stop the bombing, gassing, imprisonment and torture of my people, we will not stop this fight.”\textsuperscript{25}

2. Target Selection and Method of Attack

The target selection and method of attack should also be of great concern to American authorities as both could be easily duplicated in America. The targets chosen were “because of national and global symbolism”, and were committed during rush hour.\textsuperscript{26} The attacks occurred in the subway system and on a bus to affect the transportation system as a whole. These targets were selected because they are easy to attack and because they are heavily used. The terrorists used backpacks filled with 2kg to 5kg of peroxide-based explosives, a substance easily made at home.\textsuperscript{27}

3. Part of a Campaign?

The unsuccessful attempted attack on July 21 was essentially the same as the attack on July 7, including the composition of the IED, which has left British authorities attempting to determine if the follow on attack was part of a campaign or if it was a copycat. Regardless of whether it is determined the

\begin{footnotesize}
\begin{enumerate}
\item Ibid.
\item Ibid.
\item Gregory, “The London Bomb Incidents of 7 and 21 July 2005: ‘New Normality’ or just as Predicted?”
\item Ibid.
\end{enumerate}
\end{footnotesize}
attacks were part of a campaign or a copycat; there are lessons to be learned from the British authorities. While the British were not successful in preventing the attacks, they were rather successful with their response to the attacks. Lessons learned from the British response could potentially assist America in the prevention of an attack so it is important to understand the British response.

4. Response

Needless to say the British controlled the area, and shut down the transportation system initially. There was excellent emergency response and information control. While those are natural responses to an emergency, the reason Britain was successful in their response can be divided into four categories. Those categories are experience, preparedness, practice, and informed citizens. As mentioned in the beginning of the chapter, British authorities have been combating the use of IEDs by the IRA both in England and Northern Ireland for several decades and are well rehearsed in detection, response, and recovery. Through their experience combating IEDs, British authorities have devised sound planning over the years including a crises management apparatus and a clear delineation of responsibility. Exercises are often performed by authorities to rehearse responsibilities and to gauge the effectiveness of systems in place. Finally but certainly not least, the British have informed citizens. The security consciousness of British citizens can also be attributed to the IRA IED threat but also because of efforts by MI5, the British Transportation Police, and other such organizations to keep citizens informed.28

The MI5 director during the 2005 bombings gave a solemn speech in 2006 articulating procedures taken since 9/11 that have contributed to Britain’s success in preventing terrorists attacks with the exception of the July bombings. Dame Eliza Manningham-Buller, the former MI5 director explained she increased her staff to almost 3000 personnel in an attempt to keep up with the daunting

amount of work required to prevent terrorist attacks. In regard to new procedures and tactics, “often to protect public safety the police need to disrupt plots on the basis of intelligence but before evidence sufficient to bring criminal charges has been collected.” In response to the increased threat facing the nation, MI5 is faced with the need to prioritize threats. This prioritization which changes every day includes, “whom to follow, whose telephone lines need listening to, which seized media needs to go to the top of the analytic pile.” With the increased staff, new tactics, techniques, and procedures, Manningham-Buller claims the MI5 was tracking near 30 plots to attack the United Kingdom during 2006.

Jonathan Edwards replaced Manningham-Buller as the MI5 director in April 2007 and recently stated the terrorist threat to the UK is on the rise. A recent address by Edwards emphasized the rise in terrorist recruitment of young children, the fact that the attacks on London were part of a “deliberate campaign”, and the importance of tackling the “root causes” of the growing extremism. “There are at least 2000 people in the UK who pose a threat to national security because of their support for terrorism...a rise of 400 since November 2006.” Edwards did not specify how the UK will attempt to minimize terrorist recruitment efforts nor the “root causes” of extremism, but acknowledged these phenomena pose a larger threat to the UK now then they have in the past.

5. Lessons Learned

There are many aspects of the 2005 London bombing which can assist America in preventing an IED terror campaign. Those aspects include detecting the radicalization effort of young men (and women) in the homeland;

29 Manningham-Buller, “The International Terrorist Threat to the UK.”
30 Ibid.
31 Ibid.
33 Ibid.
understanding the demographics of potential terrorists; identifying potential symbolic, iconic, or likely targets; the use of peroxide-based explosives, and method of delivery. America does not have over 30 years of experience combating IEDs per se, but American authorities can still learn from Britain’s experience with the IRA and current tactics, techniques, and procedures. Additionally the U.S. can learn from Britain the need to increase planning for IED attacks, perform more rehearsals, and increase public awareness of the IED threat to America.

B. SPAIN

The March 11, 2004 bombings and the events of March 12, April 2, and April 3 in Madrid, Spain share several characteristics with the July 2005 London bombings; however, there are several aspects of the Madrid bombing that are different from the London bombing and should be recognized. In a manner similar to the Britain case study, the Spain case study will provide insight into the background and recruitment of the bombers, target selection and method of attack, the Spanish response, and what the United States can learn from the attack.

1. Background of Perpetrators

One of the greatest differences between the London bombings and Madrid bombings is the background of the terrorists. The key perpetrators were criminals, specifically drug traffickers, who had origins in a Moroccan Islamic combatant group. Many of them were radicalized or began planning the operation while in the Spanish prison system. With criminal backgrounds the terrorists provided expertise in fund raising, explosive procurement, covert

activities and criminal contacts.\textsuperscript{35} As a result of the terrorist’s criminal past, Spanish law enforcement did have intelligence on several of the perpetrators.\textsuperscript{36}

2. Target Selection and Method of Attack

Like the London bombings, the March 11 Madrid bombings focused on the transportation system during peak hours. There were four separate attacks with each attack being comprised of one to four backpacks filled with nitro glycerin based explosives.\textsuperscript{37} The attacks occurred during morning rush hour between 7:39AM and 7:54AM and killed 191 people. The advanced composition of the IEDs required the explosives to be acquired as opposed to making them at home using household chemicals.

3. Part of a Campaign?

The primary IED attack was on March 11, 2004; however, this attack was likely part of a larger terror campaign with follow on attacks attempted on March 12 and April 2. On March 12 and April 2, bombs were found on the railway system and diffused, assisting authorities in forensic collection and analysis. On April 3, Spanish authorities surrounded the apartment building of the suspected terrorists but the terrorists committed suicide by detonating several explosives. The failed attacks can be confirmed as part of a larger terror campaign because the DNA of one of the terrorists, Asir Rifat Anouar, from the apartment building explosion was found on the bag concealing the IED of the attempted April 2 attack.\textsuperscript{38}

\textsuperscript{35} Phil Williams, “Terrorist Finances: From Funding Networks to Self-Financing Terror,” (PowerPoint presentation at the University of Pittsburgh, June 2007). CAPT Timothy Doorey e-mailed presentation to author, October 10, 2007.

\textsuperscript{36} “Madrid Bombing Accused 'Under Watch since 2002'.”

\textsuperscript{37} Williams, “Terrorist Finances: From Funding Networks to Self-Financing Terror.”

\textsuperscript{38} Ibid.
4. Response

The immediate Spanish responses to the Madrid bombing were similar to the British. The transportation system was shut down, the areas were cordoned off, and law enforcement and emergency services were on scene. However, this is where the similarities between the British response and the Spanish response end. Initially the Spanish government accused ETA with the March 11 attacks because they have been combating ETA since 1959 and IEDs are a common weapon of the terrorist organization. Additionally, the Spanish general elections were to be held on March 14 and ETA had threatened to conduct a bombing campaign before the election. Despite placing the initial blame on ETA, the Partido Popular lost the election and the newly elected Partido Socialista Obrero Español’s response to the Madrid bombings was a rapid withdraw of troops in Iraq. In addition to the troop withdraws in Iraq, the only other response of the Spanish government was to increase investigation on potential threats. There is not as much to learn from the government response in the Madrid attack as there is to the London attack, however, there is much to learn from different aspects of the attack.

5. Lessons Learned

There are several important aspects of the Madrid bombing that could potentially assist in preventing an IED terror campaign in the United States. First, not all terrorists are “homegrown”. While Morocco is close to Spain, the perpetrators were not Spanish, although they had lived in Spain for many years. Terrorists and potential terrorists are not limited to certain demographics and can come from anywhere. Second is the realization that criminals can also be radicalized and turned into terrorists capable of performing unspeakable acts. Often, criminals are a greater threat than extremists. Radicalized criminals are not only motivated but they bring with them money, expertise in covert activities, and contacts. It is this criminal radicalization factor that made the Madrid
bombings more effective than the London bombings. Criminal activities can be an indication of potential terrorist activities. The third aspect is the importance of cooperation between intelligence agencies and law enforcement. Since criminal activities can be an indication of potential terrorist activities it is critical that intelligence agencies and law enforcement cooperate and especially with intelligence sharing. If these different organizations fail to communicate effectively with each other valuable intelligence will be missed and the chances of disrupting terrorist attacks decrease. Fourth and finally, this attack demonstrated the evolution of terrorist financing from fund raising, transfer, and spending (FRTS) to fund raising, and spending (FRS) also known as self-financing. This implies self financing is sufficient in conducting large scale terror campaigns and outside donations are not necessary.\textsuperscript{39}

C. ISRAEL

Due to the multitude of factors and complexity of the Israel-Palestine conflict, this case study will examine the IED threat in Israel in the broadest sense and extract only information that can assist the United States in developing preventive measures. The most important aspect of the Israel case study is that unlike Britain and Spain, IED attacks, specifically suicide IED attacks, occur often in Israel due to the ongoing Israeli-Palestinian conflict. IEDs are used as both a weapon of attrition in Israel, and as an instrument in a terror campaign, since there is a considerable psychological impact on Israeli citizens. Israel, has nearly fifteen years of experience responding to the IED threat inside their borders, the occupied territories and in Lebanon and has developed countermeasures that could assist the U.S. in developing preventive measures.

1. **Background of Terrorists**

The IED attacks that occur within Israel are executed by a multitude of organizations including Hamas, Hezbollah, the military portion of Fatah, and the

\textsuperscript{39} Williams, “Terrorist Finances: From Funding Networks to Self-Financing Terror.”
Popular Front for the Liberation of Palestine (PFLP). The motivation for the IED attacks can be attributed to the Israeli-Palestinian territorial issue which has since turned into a religious conflict. A simple Google search of “suicide bombers and Israel” will return dozens of hits detailing the willingness of young Palestinians to “martyr” themselves in Israel if they believe God wills it.

2. Target Selection and Method of Attack

The majority of attacks are executed on civilians at locations and times that will result in the greatest number of casualties. The suicide IED is most commonly used and the method of attack has been extremely effective causing more than 739 deaths as of 2006. The composition of the IEDs being used varies. The most likely cause for the variety of IEDs is the multitude of organizations and actors involved in executing the attacks.

3. Part of a Campaign?

The use of suicide IEDs in Israel is part of a campaign. “The vast majority of suicide bombings (98%) are part of an organized campaign.” The campaign against Israel is a terror campaign; the same type of campaign America is aiming to prevent.

4. Response

The core of Israel’s unclassified response to the IED threat is comprised of one detrimental and two beneficial measures. Examining the detrimental responses to a threat is as important as examining the beneficial or effective

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41 Ibid., 100.


43 Ibid., iii.
responses to a threat because often times more can be learned from failure than success. When discussing the IED threat response in Israel, the massive numbers of attacks each year and the geopolitical climate must not be forgotten.

a. Detrimental Response

Since the IED threat is a cross border threat between the occupied territories and Israel proper, Israel’s primary response to the threat has been increasing border security. This measure includes the building of a security fence which essentially “demarcate(s) nearly the entire border between Israel and the purported Palestinian state.” The logic behind building a security fence is rational; however, the effects of such an action are detrimental and will be discussed in the lessons learned portion of the case study.

b. Beneficial Response

Another response taken and arguably a more constructive response in the long run was to regulate the precursors of homemade explosives. Because of the common use of acetone in the explosives used against Israel, acetone was closely monitored and was made essentially impossible to acquire. Limiting the availability of such key precursor chemicals to a terrorist can disrupt the planning cycle and reduce the frequency of attack.

A second beneficial response of the Israeli’s was infiltrating the terrorist organizations responsible for suicide attacks in Israel. This response allows for the early detection of future attacks with the added benefit of learning who the responsible terrorists are; how they are operating; where they are planning and operating; where they are receiving funding and resources; etc.


45 Roger Davies, phone interview by author, October 20, 2007.

46 Ibid.
5. Lessons Learned

Although only two responses made by Israel are mentioned, they are both extremely important and both can help the U.S. prevent an IED threat. There is nothing wrong with increasing border security; however, there are issues with erecting a wall that builds boundaries and establishes territory. By building the security wall Israel is further alienating certain communities. The issue is not the security wall itself; the issue is the alienation of certain communities created by the wall. Alienating or segregating certain communities or sects can be detrimental to building the relations required to defeat or overcome the issue at hand. Islamic extremists pose the largest IED threat to America, but that does not mean that alienating the Muslim community in the United States would help reduce the threat. The opposite is true.

The measure of clamping down on homemade explosive precursors is vital. In the United States, as in Israel, the government has recognized the importance of such actions, and has recently published literature on the indications of homemade explosive precursor production. The U.S. government has learned from the Oklahoma City bombing and is familiar with the use of common chemical precursors in the production of explosives in foreign countries, but that knowledge alone is not enough. America must develop effective measures to clamp down and monitor the sale of those common chemical precursors. According to a joint homeland security assessment by DHS and the FBI, terrorist interest is growing in peroxide-based explosives.47

IV. EVOLUTION OF U.S. COUNTER-IED EFFORTS

U.S. C-IED efforts began in response to the increase of IED attacks and coalition fatalities in Iraq during Operation Iraqi Freedom in 2003. To date, U.S. C-IED efforts continue to be directed at combating IEDs in Iraq and Afghanistan, however, as terrorists broaden their target selection standards, so too should the U.S. broaden its C-IED efforts. The U.S. has made some progress in identifying and responding to enemy IED activities in Iraq and Afghanistan, but little has been done to develop C-IED efforts for use within the United States. The vast majority of military C-IED technological efforts are not applicable for domestic use; however, the Joint IED Defeat Organization (JIEDDO) retains knowledge and expertise that can assist in preventing a domestic IED terror campaign.

A quick background of military C-IED efforts and practices should provide the foundation necessary to understand where certain aspects of domestic C-IED measures should be focused.

A. MILITARY COUNTER-IED EFFORTS

The following table lists the most significant events leading to current U.S. military C-IED efforts:

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 03</td>
<td>Initial invasion of Iraq</td>
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<tr>
<td>Jul 03</td>
<td>First recorded U.S. death from IED in OIF</td>
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<td>Oct 03</td>
<td>Army IED Task Force created</td>
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<tr>
<td>Apr 04</td>
<td>Army proposed the activation of an Asymmetric Warfare Regiment to oversee IED response and counter-terrorism profiles (later designated Asymmetric Warfare Group AWG)</td>
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<tr>
<td>Jun 04</td>
<td>Gen Abizaid calls for a “Manhattan Project” for countering IEDs</td>
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<tr>
<td>Date</td>
<td>Event</td>
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<td>----------------------------------------------------------------------</td>
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<tr>
<td>Jul 04</td>
<td>Pentagon renames and expands Army IED TF to Joint IED Defeat IPT</td>
</tr>
<tr>
<td>Jul 05</td>
<td>Pentagon renames and expands JIEDD IPT to JIEDD Task Force</td>
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<tr>
<td>Dec 05</td>
<td>GEN Meigs (Ret.) replaces BG Votel as head of the JIEDD TF</td>
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<tr>
<td>Jan 06</td>
<td>DSD England makes the JIEDD TF permanent renaming it JIEDD Organization, and gives it training and equipping authority</td>
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</tbody>
</table>

Figure 2. Counter IED Time Line. 48

JIEDDO’s approach to the IED threat in Iraq and Afghanistan is a three pronged effort. In no particular order, the efforts consist of defeating the device, attacking the network, and training the force. Currently JIEDDO is allocating over 60% of their efforts to defeating the device, and only 30% to attacking the network.49 Many individuals believe a stronger emphasis should have been placed on attacking the network due to the ingenuity of our adversaries, and over the past few years JIEDDO has come to the same realization. In fiscal year 2006, only 13% of JIEDDO’s efforts were concentrated on attacking the network while almost 80% was dedicated to defeating the device.50 The trend is moving in the right direction and eventually an appropriate balance will be found. The reason emphasis has been placed on defeating the network is because it is easier to defeat the threat if it is not in motion. By concentrating primarily on the defeating the device, the network has the ability to attack when and where it wants to. Logically speaking, if there is no IED network, there is no IED threat.

“Training the force” is an important aspect in neutralizing the threat in Iraq and Afghanistan, but it provides little insight on how to prevent the threat in the homeland, unless the training assists Federal, State, and local authorities identify

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48 Lepore, 16.

49 Keesee, “JIEDDO Cooperative Opportunities International Acquisition Forum – XXII: Attack the Network-Defeat the Device-Train the Force.”

50 Ibid.
the signals of a pending IED campaign. “Defeating the device” is also of minimal value primarily because the effort establishes that the device is being used and does nothing to prevent the IED threat from becoming a threat in the first place. “Attacking the network”, however, is extremely valuable in formulating measures to prevent an IED threat in America. Perhaps with the increased effort and some of the newfound methods used by JIEDDO to attack the network in Iraq and Afghanistan, our security personnel will become better prepared to prevent an IED threat in America. This includes monitoring Islamist terrorist propaganda and Internet chat rooms for indications and warning of a pending IED terror campaign.

B. DOMESTIC COUNTER-IED EFFORTS

The United States is in the beginning phase of learning how to deal with the IED threat. Since the U.S. is in the initial phase of C-IED effort implementation and because this thesis is unclassified, discussing the details of domestic C-IED measures is not possible. However, it is possible to examine what has been stated publicly about domestic C-IED efforts and this section will do so. There has been a presidential directive issued addressing the issue and a symposium held by Homeland Security Secretary Michael Chertoff warning America of the threat and what is being done about it. Specifically this section will examine the Homeland Security Presidential Directive 19 and comments made by Michael Chertoff in an October, 2007 address about the domestic IED threat facing America.

While there has not been significant progress in developing C-IED measures within the United States, the Bush administration, experts in homeland security, and many other individuals have acknowledged the possibility of an IED threat in America. To be better prepared for an IED threat in America, the White House ran an exercise in February 2007 “to test responses to the prospect of a
massive domestic terrorist attack involving IEDs." The rehearsal occurred only
two weeks after HSPD-19 was issued but months before the deadlines set forth
in the directive are to be met. The results of the exercise have not been released
to the public.

1. HSPD - 19

There are many critics of HSPD-19 and much of what is being said is true. The
directive lacks strategic guidance and has not provided government
agencies, state officials, local authorities, and the private sector with specifics on
what it needs to do to prevent IED attacks in America. With that said the
directive is still important because next to a few remarks made by Chertoff, it is
all America has. The directive must be reviewed in order to understand future
legislation and actions being taken by DHS to prevent the IED threat.

The Homeland Security Presidential Directive 19 was issued on February
12, 2007, and is currently the only policy which addresses defense against
explosives / IEDs. The directive focuses on policy and implementation actions
needed to support the policy. The policy set forth in the directive states:

It is the policy of the United States to counter the threat of explosive
attacks aggressively by coordinating Federal, State, local, territorial,
and tribal government efforts and collaborating with the owners and
operators of critical infrastructure and key resources to deter,
prevent, detect, protect against, and respond to explosive attacks,
including the following: analysis of potential threats of explosive
attacks; using the most effective technologies, capabilities,
and explosives search procedures, and applications thereof, to
detect, locate, and render safe explosives before they detonate or
function as part of an explosive attack, including detection of
explosive materials and precursor chemicals used to make
improvised explosive or incendiary mixtures; applying all
appropriate resources to pre-blast or pre-functioning search and
explosives render-safe procedures, and to post-blast or post-
functioning investigatory and search activities, in order to

51 Michael Isikoff, "White House Rehearses for a Domestic Attack," Newsweek, February 23,
2007).
detect secondary and tertiary explosives and for the purposes of attribution; employing effective capabilities, technologies, and methodologies, including blast mitigation techniques, to mitigate or neutralize the physical effects of an explosive attack on human life, critical infrastructure, and key resources; clarifying specific roles and responsibilities of agencies and heads of agencies through all phases of incident management from prevention and protection through response and recovery.52

The directive’s policy accurately addresses the key elements of preventing and responding to an IED attack / terror campaign, but more critical than the policy are the implementation actions. The guidance for the implementation actions states:

As soon as practicable and not later than 150 days after the effective date of this directive, the Attorney General, in coordination with the Secretary of Homeland Security and the heads of other Sector-Specific Agencies (as defined in HSPD-7) and agencies that conduct explosive attack detection, prevention, protection, or response activities, shall submit to the President for approval, through the Assistant to the President for Homeland Security and Counterterrorism, a report, including a national strategy and recommendations, on how more effectively to deter, prevent, detect, protect against, and respond to explosive attacks, including the coordination of Federal Government efforts with State, local, territorial, and tribal governments, first responders, and private sector organizations.53

Following that statement is a list of everything that shall be included in the report. It is directed the report include:

a descriptive list of all Federal statutes, regulations, policies, and guidance; an inventory and description of all current Federal Government assets and capabilities cataloged by geographic location, including the asset’s transportability and, to the extent feasible, similar assets and capabilities of State, local, territorial, and tribal governments; an inventory and description of current research, development, testing, and evaluation initiatives and recommendations for the best means of disseminating the results of such initiatives to and among Federal, State, local, territorial, and tribal governments and first responders; an assessment of our

53 Ibid.
ability to deter, prevent, detect, protect against, and respond to an explosive attack; recommendations for improved detection of explosive chemical compounds, precursor chemicals; recommendations for developing a comprehensive understanding of terrorist training and construction methods relating to explosive attacks; recommendations for protecting critical infrastructure and key resources against an explosive attack; a recommended draft incident annex to the National Response Plan developed pursuant to Homeland Security Presidential Directive-5 of February 28, 2003 (Management of Domestic Incidents), for explosive attacks, detailing specific roles and responsibilities of agencies and heads of agencies through all phases of incident management from prevention and protection through response and recovery; an assessment of the effectiveness of Government training and education initiatives relating to explosive attack detection; recommended components of a national public awareness and vigilance campaign; a recommendation on whether any additional Federal Government entity should be established to coordinate Federal Government explosive attack prevention, detection, protection, and response efforts and collaboration with State, local, territorial, and tribal government officials, first responders, and private sector organizations.\textsuperscript{54}

Following the approval of the report by the President, within 90 days the “Attorney General, in coordination with the Secretaries of Defense and Homeland Security and the heads of other Sector-Specific Agencies (as defined in HSPD-7) and agencies that conduct explosive attack detection, prevention, protection, or response activities, shall develop an implementation plan.”\textsuperscript{55} Finally the implementation plan should “implement the policy set forth in this directive and any recommendations in the report that are approved by the President, and shall include measures to coordinate the efforts of Federal, State, local, territorial, and tribal government entities to develop related capabilities, allocate Federal grant funds effectively, coordinate training and exercise activities, and incorporate, and strengthen as appropriate, existing plans and procedures to communicate

\textsuperscript{55} Ibid.
accurate, coordinated, and timely information regarding a potential or actual explosive attack to the public, the media, and the private sector.”56

As of October 2007 the report due to the President detailing the implementation actions has not been filed. One can speculate the reasons why the deadline for the report has not been met, but it does not matter because the fact remains America still lacks the direction needed to confront a domestic IED threat.

The foundation of America’s domestic C-IED preventive measures and responses not covered in HSPD-19 will be based on two factors. The first factor will be learning from foreign state C-IED efforts; and the second factor will be learning from America’s mistakes.

2. Chertoff’s Remarks

On September 20, in Philadelphia “before an audience of federal agents, bomb squad officers, and first responders” Department of Homeland Security secretary Michael Chertoff attempted to raise awareness of the IED threat.57 One month later in Washington D.C., Chertoff once again addressed the IED threat but also addressed how the United States is dealing with it. The speech was organized into four sections. The first section contained four points of emphasis, the second section addressed prevention, the third section tackled detection, and the fourth section covered target hardening. Although Chertoff spoke of prevention separately from detection and target hardening, there should be an understanding that any action taken disrupting the detonation of an IED can be considered a preventive measure.

Before discussing how the U.S. will prevent, detect, and harden targets, Chertoff covered certain points of emphasis explaining “how we look at IEDs.”

As his first point of emphasis, Chertoff identifies the need to meet the threat ‘left of the boom’. That expression “captures and articulates this concept; that before we actually have the explosion, there are a series of intervention points, when if we can prevent something from happening, we can stop that boom from taking place.” He refers to ‘left of the boom’ on a spectrum because “it’s easy to view the issue of IED prevention in a very narrow focus; to look only at the issue of what do we do on site to prevent people from actually bringing in the bomb and detonating it.” Such emphasis was placed on the ‘left of the boom’ concept because “the more we can do left of boom, the less we’re going to have to do as we get closer to boom.”

The second point of emphasis was a warning that the IED threat extends well beyond the federal level. He cautions all levels of the government, state officials, local authorities, and the private sector are participants in dealing with the IED threat. Unfortunately “how we integrate the private sector with various levels of government in this enterprise is one of the key challenges for Homeland Security as we move forward.”

The third point of emphasis was on the importance of intelligence. Needless to say, accurate and timely intelligence is needed to prevent terror threats, but Chertoff spoke of intelligence to address the issue of civil liberties in a round about way. “The more focused our intelligence gathering is, the more we

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59 Ibid.
60 Ibid.
61 Ibid.
62 Ibid.
can respect the privacy and the way of life of the vast majority of people because we can be very targeted in what we do.”63

The fourth and final point of emphasis was the importance of public observation. The disruption of VBIEDs this summer in London and Glasgow, and the stopping of the shoe bomber Richard Reid in 2001 were used as examples to stress the importance of public awareness.

The preventive measures discussed were detecting foreign terrorists, making it harder for domestic terrorists to get the materials (chemicals) needed to make an IED, information sharing, and funding through grant programs. Chertoff’s “optimal strategy against IEDs” is identifying foreign terrorists using intelligence and forensic analysis.64 He supported this preventive measure by identifying a terrorist who killed 124 people in Iraq with a VBIED who years earlier was denied access into America and fingerprinted before deportation.

If the terrorist is not a foreign terrorist but a homegrown terrorist, Chertoff stated the most desirable preventive measure is increasing the difficulty of acquiring dangerous chemicals. Chertoff recognizes an IED can be constructed using chemicals from a Home Depot and very little can be done about that, but “we can at least minimize some of the highest-consequence risks: dangerous chemicals.”65 Minimizing the highest-consequence risks can be addressed by “fleshing out our regulations under the chemical security laws.”66

The third preventive measure discussed was the application of information sharing between the federal, state, local, and private sector. The system in place to provide this preventive measure is TRIPwire, and although Chertoff spoke confidently about the sharing portal he neglected to mention its success to date.

63 Chertoff, "Remarks by Homeland Security Secretary Michael Chertoff at a Symposium on Improvised Explosive Devices in the United States."
64 Ibid.
65 Ibid.
66 Ibid.
The final preventive measure mentioned was the grant programs that provide funding to help increase the capacity of communities, ports, and other government agencies to deal with IEDs. There were no details provided on how those organizations are increasing their capacity with the funding.

The detection aspect of dealing with the IED threat relies on explosive detection systems, behavioral observation, and canine teams. While these measures do not prevent the construction of an IED, they can be useful in preventing an IED from being detonated.

The final section was target hardening and covered physical architecture (buffer zones), port security, including containers and boats, and “general aviation coming in from overseas.” As with many of the previous sections, there were no details given on what measures are being taken to harden these targets.

Chertoff’s speech was unclassified, so the lack of evidence and detail is understandable. However, there are several measures that could be successful C-IED tools that were not mentioned such as preventing the recruitment and radicalization of impressionable individuals in America and international coordination.

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67 Chertoff, "Remarks by Homeland Security Secretary Michael Chertoff at a Symposium on Improvised Explosive Devices in the United States."
V. RECOMMENDATIONS AND CONCLUSION

Using lessons learned from the British, Spanish, and Israeli case studies as well determining how prepared the United States is to deal with an IED threat based on HSPD-19 and Chertoff’s symposium, recommendations can be made to assist in developing domestic C-IED measures. The following recommendations are made because without these measures being exercised it would be impossible for the United States to prevent an IED terror campaign.

A. INTELLIGENCE TRIGGERS

Recommendation – The United States must increase the use of the intelligence triggers I&W and OSINT.

A higher level of attention must be given to intelligence triggers in the United States. Intelligence relating to terrorism is rarely adequate, detailed, or timely so it is paramount that Indications and Warnings (I&W) and Open Source Intelligence (OSINT) are given the highest level of attention. The bottom line is addressing perceived vulnerabilities through these intelligence triggers is more beneficial than waiting for a warning through the intelligence community. These intelligence triggers apply to worldwide trends and are often more beneficial than current intelligence. Terrorists may broadcast their intentions to terrorize the United States, and Chertoff has stated the IED is the terrorist’s weapon of choice. With that intelligence as a starting point, I&W and OSINT are likely the best opportunity of gathering information that can help the United States prevent an IED terror campaign. Since OSINT does not require security clearances, it allows all officials and law enforcement agencies to participate and share information.
1. I & W and OSINT

The current method for obtaining and distributing open source intelligence and indications and warnings relating to IEDs is though TRIPwire. “TRIPwire (Technical Resource for Incident Prevention) is a secure, online information-sharing network for law enforcement, bomb squads, and other first responders to learn about current terrorist bombing tactics, techniques, and procedures, including improvised explosive device (IED) design and emplacement.”68 In addition to sharing tactics, techniques, and procedures, TRIPwire combines “expert analysis and reports with relevant documents, images, and video gathered directly from terrorist sources, to help homeland security professionals anticipate, identify, and prevent bombing incidents.”69 The network provides “near real-time information on improvised explosives and IEDs, relevant news, and threat alerts.”70 The network was launched in 2007 by the Office for Bomb Prevention (OBP) in DHS so there is expert validated information with federal level oversight. TRIPwire is an excellent start in sharing and distributing intelligence triggers on current IED trends, however, there appears to be several issues with the concept and the handling of intelligence triggers in the United States.

The first issue concerns what type of I&W and OSINT is being broadcast on TRIPwire. TRIPwire is a technical resource, but if the network was designed to prevent explosive incidents DHS must be willing to post more than technical I&W and OSINT. There are several I&W and OSINT factors not being broadcast on TRIPwire (such as criminal activity as a precursor to terrorist activity, indications of recruitment efforts and radicalization, and the movement towards self financing) because they are not technical in nature. There are a number of

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69 Ibid.
70 Ibid.
indications and warnings as well as OSINT that are less than technical in nature but can assist in preventing the threat and they too must be posted on TRIPwire. A failure to monitor and distribute all available indications and warnings and OSINT whether learned from foreign states or derived for the U.S. specifically provides an incomplete view of the threat which can have disastrous results.

The second issue with TRIPwire and the distribution of intelligence triggers is the fact that the network is only available “to members of the bombing prevention community.” Without doubt there are certain pieces of intelligence that should only be available to the bombing community, however, the vast majority of indications and warnings and OSINT should be available to personnel outside of the bombing community. One of Chertoff’s points was the importance of the private sector in preventing the IED threat. The private sector controls around 80% of the critical infrastructure in the United States but because they are outside of the bombing community the private sector is not privilege to indications and warnings or OSINT on TRIPwire. The situation is unsatisfactory and needs to be improved.

At the very least the indications and warnings shared with an individual can depend on where they exist in the level of prevention. The average U.S. citizen should be aware of likely targets and the methods of delivery. Law enforcement personnel should be cognizant of criminal activity as a precursor to terrorist activity, the radicalization of criminals in prison, and the social networking aspect of recruitment in addition to what the average citizen should know. State officials should be tracking developments across the country and internationally as well as feeding information and intelligence from the local level up. The national level should be tracking old I&W and developing new I&W through constant OSINT monitoring.

71 Department of Homeland Security, "TRIPwire."
C-IED efforts must utilize the intelligence triggers I&W and OSINT more often and effectively and determine the appropriate distribution for this information.

B. INTERNATIONAL AND INTERAGENCY COOPERATION

Recommendation – The United States federal agencies must increase international and interagency cooperation.

Without interagency and international cooperation, there is little chance the U.S. can prevent an IED terror campaign. Currently America is not doing well in this area. International cooperation is valuable for providing lessons learned, current trends in foreign countries, and disrupting future plots. Interagency cooperation is essential in sharing what was gained from exercising international cooperation, gaining access to DoD level resources to combat IEDs, and addressing the threat in general because there is no single agency capable of preventing an IED terror campaign.

International cooperation is necessary for the United States to learn the tactics of IED attacks and C-IED efforts of foreign countries that have been subject to IED campaigns as demonstrated by the case studies in Chapter III. Many of the details about the London bombing, Madrid bombing, and Israel’s struggle are available using open sources, but international cooperation allows for a more specific analysis of the circumstances. Not only are specific details about recent IED attacks helpful to the United States, the experience gained by these countries over the past decades combating IEDs is valuable. America must retrieve and digest as much of the C-IED history of foreign countries as possible through communicating and cooperation. Anything less is putting the United States that much further behind in preventing an IED terror campaign.

International cooperation is also necessary to analyze current trends of potential IED threats and recent attacks in foreign countries in a timely manner. The current trends of potential IED threats would not be adequate using open
sources, so international cooperation is critical. The single most important aspect of analyzing current trends of potential IED threats is the time factor. Receiving the trends of potential IED threats in Germany two weeks in the wake of an attack in America does not provide much benefit. International cooperation would not only allow the United States to provide security for the homeland, it would likely increase security for the foreign countries America is cooperating with.

Programs initiated by the New York Police Department (NYPD) show there are issues with international cooperation between America’s federal agencies and foreign countries. The NYPD has liaison officers in select cities around the world that monitor terrorist activities in these countries and the region. After a terrorist attack, the liaison officer acquires the details of the event and forwards the information to the NYPD counterterrorism bureau where a report is quickly drafted with the information provided and the implications for New York City.\textsuperscript{72} Initiatives like this by the NYPD demonstrate the lack of confidence New York City has in international cooperation of U.S. federal agencies with foreign countries. If the FBI, CIA, or DHS were effectively communicating with foreign countries and providing information to State and local authorities in a timely manner, initiatives like NYPD SHIELD would not be necessary.

Obviously international cooperation and partnerships exist which is evident with the disruption of the plot to explode airliners heading to the United States from England in mid-2006, but the level of cooperation is still not where it needs to be. The level of cooperation must go beyond confirmed high level threats; the level of cooperation must transcend down to sharing potential threats as well.

International cooperation is absolutely critical, but interagency cooperation within the United States is even more so. There are two specific reasons

interagency cooperation is necessary. First, there is no single agency in the United States with the resources to prevent an IED terror campaign. Second, U.S. authorities have jurisdictional boundaries and terrorists do not.

No single agency in the United States poses the resources necessary to prevent an IED terror campaign. Low level state and local authorities are especially under resourced to prevent the IED terror threat. Interagency cooperation would allow lower level authorities’ access to DoD C-IED assets. The best time to locate and use DoD C-IED assets is not in the aftermath of an attack or terror campaign. The communication and cooperation needed to prevent this from occurring must take place before the attacks.

Each agency in the United States has its own duties and responsibilities providing certain services. Throughout the government and law enforcement in the United States there are jurisdictions. Individuals are experienced at what they do inside those jurisdictions but are not very good about communicating across jurisdictional boundaries. While America has jurisdictions, terrorists do not and they use it to their advantage. It is no secret that interagency cooperation and communication is not what it needs to be, but it is improving. The attacks on 9/11 provide an excellent example of the importance of interagency cooperation, the need to effectively communicate, and the ramifications of a failure to do so. The 9/11 commission report addresses the “Unity of Effort across the Foreign-Domestic Divide” in an effort to improve international cooperation because a failure to achieve such could result in another catastrophic attack.73 The value of interagency cooperation is best demonstrated using the following notional example.

Al Qaeda releases a video clip showing IED attacks in Iraq and says, “Soon America will taste this in the U.S.” Cars are reported stolen in Pennsylvania, New York, and Ohio. Homemade explosives are suspected of

being engineered in Delaware. A prison in New Jersey suspects inmates are being recruited for terrorist activity. These are criminal activities in separate states, but with interagency cooperation these activities can be viewed as possible precursors to an IED threat. Without different agencies sharing information there is nothing to stop the cars from being driven to Boston where they are equipped with the homemade explosives from Delaware and provided to four recently paroled terrorists from New Jersey.

International and interagency cooperation is absolutely critical in preventing an IED terror campaign in the United States. Foreign state assistance and cooperation is a force multiplier in the fight against IEDs and the nature of an IED threat extends across every U.S. jurisdiction. Without increasing the effectiveness of U.S. international and interagency cooperation terrorists will continue to operate within those seams and they will be successful.

C. IMPLEMENTING RECOMMENDATIONS

The single most important aspect of the recommendations offered is that the recommendations can be immediately implemented. A new domestic C-IED task force is not necessary, although new analytical jobs may be needed at key seams to monitor and distribute IED information over existing systems. The systems to monitor the IED threat already exists, as do the relationships required for international and interagency cooperation. All that is required to implement the recommendations is a willingness to foster and nurture the systems in place.

D. RESEARCH QUESTIONS ANSWERED

1) Have any terrorist or criminal organization shown interest in using IEDs in America?

YES! In past decades, domestic terror organizations such as the Animal Liberation Front (ALF), Earth Liberation Front (ELF), and members of the anti-abortion movement not only showed interest in using IEDs in America, they used IEDs in America. Today the greatest IED threat to America comes from Islamic
extremists who have broadcast their intentions to terrorize the United States. The IED is the terrorist’s weapon of choice.

2) **What lessons can be learned and applied from instances of IED terror campaigns against other nations?**

The Britain, Spain, and Israel case studies reveal there are a number of valuable lessons from IED terror campaigns against other nations. Some of those valuable lessons include detecting the radicalization of men and women; the varying demographics of terrorists and potential terrorists; the need to identify likely targets; the common use of peroxide based explosives; common methods of delivery; the overall experience of countries who have been battling the threat for decades; the concept of homegrown terrorists; the recruitment of criminals, especially in prison; criminal acts as a precursor of terrorist activity; the importance of cooperation between intelligence communities and law enforcement; the movement from fund raising, transfer, and spending (FRTS) to fund raising, and spending (FRS), also known as self financing; the ramifications of alienating a certain community; and the necessity to clamp down on chemical precursors to homemade explosives.

3) **Should or can indications and warnings (I&W) and open source intelligence (OSINT) provide a significant piece of the answer to combating a domestic IED threat?**

YES! Intelligence relating to terrorism is rarely accurate or timely so it is paramount that Indications and Warnings (I&W) and Open Source Intelligence (OSINT) are given the highest level of attention. The United States government also believes indications and warnings and open source intelligence provide a large piece of the answer because of the launching of and confidence behind the TRIPwire network. Addressing perceived vulnerabilities through indications and warnings and open source is more beneficial than waiting for a warning of an IED threat through the intelligence community.
4) Would a domestic IED terror campaign be more likely or lethal without effective international and interagency cooperation?

YES! The terrorists responsible for 9/11 were able to live openly in the United States without being monitored, take flying lessons in the United States, hijack four commercial airliners, and crash all four of them because international and interagency cooperation was ineffective. Executing an IED terror campaign in the United States today would be easier than preparing for a 9/11 type attack because flying lessons would not be required. Besides increasing the use of certain intelligence triggers the only way to prevent or reduce the likelihood or lethality of an IED terror campaign in the United States is to increase the effectiveness of international and interagency cooperation.

E. INSTILLING A SENSE OF URGENCY

Terrorists have shown every intention they will continue to attack America. IEDs are already the weapon of choice by terrorist organizations in many countries. Terrorists possess the capabilities necessary to manufacture and use IEDs. Spectacular IED attacks and IED campaigns are occurring all over the world, it just has not happened in America, yet. America will have a national election in a year’s time which will increase the country’s vulnerability and the likelihood of attack. These facts should instill a sense of urgency, but also consider the following statements:

"If terrorists initiated an IED campaign in America today, it could paralyze us."74 David Heyman, director of the Center for Strategic and International Studies.

"Terrorists' use of IEDs cannot be extrapolated into anything other than a major threat to this country."75 Supervisory Special Agent Barbara Martinez, a senior official at the FBI's Critical Incident Response Group.

“National coordination of IED prevention efforts is absolutely crucial.”\textsuperscript{76} Lt. Shawn E. Stallworth, a Michigan State Police detective and member of the National Bomb Squad Commanders Advisory Board.

“As we saw in London and Glasgow, Scotland, in June, this trend has already begun.”\textsuperscript{77} FBI Director Robert S. Mueller III.

The IED threat is knocking on America’s door. It remains to be seen if the United States government has learned the lessons of 9/11 and will take the necessary steps to prevent an IED terror campaign in America.

\textsuperscript{75} “Chertoff’s Gut Feeling ‘IEDs are Coming to America’.”

\textsuperscript{76} Spencer S. Hsu and Mary Sheridan, “Chertoff Warns IEDs a Rising Threat in U.S.”

\textsuperscript{77} Ibid.
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