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# THESIS

**FILLING THE GAP BETWEEN NIMS/ICS AND THE LAW ENFORCEMENT INITIAL RESPONSE IN THE AGE OF THE URBAN JIHAD**

by

Theodore J. Moody

September 2010

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The American urban policing model is well suited for response to ordinary domestic criminal activity and, through the use of command and control tools such as NIMS, works adequately for many unusual occurrences. The NIMS-based model alone, however, including the current *National Response Scenarios*, seems ill suited for response to acts of paramilitary terrorism. American law enforcement may require a supplemental response paradigm that envisions an effective initial response when faced with degraded communications capabilities and uncertain command and control structures.

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# FILLING THE GAP BETWEEN NIMS/ICS AND THE LAW ENFORCEMENT INITIAL RESPONSE IN THE AGE OF THE URBAN JIHAD

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# LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| ACP | Assistant Commissioner of Police |
| Addl.CP | Additional Commissioner of Police |
| Addl.DG | Additional Director General of Police |
| DCP | Deputy Commissioner of Police |
| EMS | Emergency Medical Services |
| EOC | Emergency Operations Center |
| HLEC | High Level Enquiry Committee |
| IAFC | International Association of Fire Chiefs |
| IAFF | International Association of Firefighters |
| ICS | Incident Command System |
| IED | Improvised Explosive Device |
| IPS | Indian Police Service |
| Jt.CP | Joint Commissioner of Police |
| LVMPD | Las Vegas Metropolitan Police Department |
| LAPD | Los Angeles Police Department |
| LE | Law Enforcement |
| LeT | Lashkar-e-Taiba |
| MACTAC | Multi Assault Counter Terrorism Action Capabilities |
| NH | North Hollywood |
| NIMS | Nation Incident Management System |
| NRF | National Response Framework |
| NRS | National Response Scenarios |
| NSG | National Security Guards |
| NYPD | New York Police Department |
| SCHSGA | Senate Committee on Homeland Security & Governmental Affairs |
| SWAT | Special Weapons and Tactics |
| USFA | United States Fire Administration |
| VBIED | Vehicle-borne Improvised Explosive Device |

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# I. INTRODUCTION

## A. PROBLEM STATEMENT

The National Incident Management (NIMS) and Incident Command Systems (ICS) are important tools that can be adapted to establish command and control in coordinating some aspects of the response and recovery phases of many major incidents, including some types of terrorist attacks. These command and control paradigms, however, are heavily reliant on communications technology and other social and organizational preconditions, and may fail to adequately support the initial law enforcement response to some types of incidents, such as the attacks that occurred in Mumbai, India, and Lahore, Pakistan. This thesis will suggest that recent developments in tactics employed by terrorists in India, Pakistan and elsewhere demand an urgent re-examination of the urban policing model currently employed in the United States (Kettl, 2006; Los Angeles Police Department [LAPD], 2009; New York Police Department [NYPD], 2008; Overseas Security & Advisory Council [OSAC], 2008; Robb, 2007; Senate Committee on Homeland Security & Governmental Affairs [SCHSGA], 2009; Sullivan & Elkus, 2009). The American urban policing model is well suited for response to ordinary domestic criminal activity and, through the use of command and control tools such as NIMS, works adequately for many unusual occurrences. The NIMS-based model alone, however, seems ill-suited for response to terrorist attacks such as have recently occurred in Mumbai, India, and Lahore, Pakistan. American law enforcement may require a supplemental response paradigm that envisions an effective initial response when faced with degraded communications capabilities and uncertain command and control structures.

NIMS/ ICS is a tool that is useful in managing *some phases* of the response to *some incidents* faced by law enforcement, but may not function well in the chaotic first phase of a law enforcement response to an extreme and novel event—such as an act of paramilitary terrorism. Donahue and Tuohy (2006) assert that first responders believe that "DHS mandates state and local governments to perform exercises they do not need" (p.

16). If first responders are performing the wrong exercises, then at best, they are doing the *wrong* things right. We do not have the luxury of failing to prepare ourselves as thoroughly as possible for an effective, immediate response. As New York Police Department (NYPD) Commissioner Raymond Kelly observed, "by far the greatest numbers of casualties occur within the first five minutes" of an active-shooter type incident (SCHSGA, 2009a, Kelly section).

At Columbine High School (1999), suicide pact actors Harris and Klebold shot at 11 students within five minutes, killing two and injuring six (Rosegrant, 2001a). Eight years later at Virginia Tech, the kill rate accelerated dramatically when lone actor Seung Cho killed nine and injured three within 10 minutes before going on to kill 32 people (Virginia Tech Review Panel, 2007). Yet, these disturbed killers were highly *inefficient* as compared to the well-trained, highly determined paramilitary terrorists who attacked Mumbai. An urgent question concerns the ability of the American policing model to respond effectively when confronting such well-planned, well-coordinated attacks on civilian populations.

Tallen (2008) observed that the large body of increasingly sophisticated official doctrine that has appeared since 2001 "are quite consistent in ignoring modalities of terrorist attack other than WMD, isolated IEDs, and suicide terrorism" (p. 3). Both the *National Response Framework* (which includes NIMS) and the *National Response Scenarios* are designed for "consequence management," and give no attention to "resolution of an ongoing terrorist incident," "Nowhere in the *National Planning Scenarios* is there a requirement for a tactical response to resolve an ongoing situation or disrupt terrorist actions in progress" (Tallen, 2008, p. 3). Donahue and Tuohy (2006) emphasize the need to use valuable time and other resources to conduct realistic training that focuses on "lessons the field has identified" (p.16); I take their observation further, suggesting that planning, training, and exercising should also consider lessons the field has *not yet* identified, or which have been partially identified elsewhere, such as in Mumbai, India. This thesis will explore these questions and the perception that NIMS alone, as currently designed, may not be the best strategy for *all* crisis types.[1]

[1] The title of Tallen's 2008 essay says it well: *Paramilitary Terrorism, a Neglected Threat.*.

## B. LITERATURE REVIEW

Literature pertaining to the topics being explored in this thesis falls into four primary, overlapping categories. First, there is the literature that pertains to the realization that a new type of threat is lurking on the horizon. Much of this literature has appeared in the wake of the horrifying November 2008 attacks against civilian targets in the Indian city of Mumbai. This body of recent work is important to our discussion, because it is precisely this perceived shift in tactical emphasis among some terrorists that proclaims the rather urgent call for a reexamination of existing crisis response protocols.

Second, there is the body of literature that questions the applicability of ICS to the range of crisis responses driven by law enforcement. This literature made its appearance relatively quickly following the development of ICS in California in the 1970s, but developed more during the 1990s. Its emphasis is *sector-based*, in that its core assertion challenges the effectiveness of NIMS/ ICS for use by law enforcement in general.

Third, there is a scholarly body of literature, drawing on the work of E.L. Quarantelli and others, which questions the ability of NIMS/ ICS to function equally well across all *crises* and all *work teams;* both of which can exhibit considerable variability in terms of intensity, complexity, familiarity, social context, and group dynamics. Its emphasis can be seen as *event-based* because it focuses primarily on characteristics that are unique to certain types of events and to the people who must resolve them. This literature is important to our discussion because NIMS—laid down by the federal government as the singular solution to crisis management in the decade since September 11, 2001 (9-11)—fails to address the demands expected to be associated with a paramilitary terrorist threat (Tallen, 2008; U.S. Department of Homeland Security [DHS], 2003; DHS, 2004, *HSPD-5*, p. 3; Wenger, Quarantelli, & Dynes, 1990).

Finally, there is the literature that deals with the possible response to our present dilemma. There is a lack of information in this latter category, but what does exist is inspiring; for it reminds us of an undying spirit that exists in American pubic service that will not rest. For example, Lieutenant John Sullivan of the Los Angeles County Sheriff's Department, writing for the West Point *CTC Sentinel*, courageously envisions a police

"operational art" in which small teams of police "move quickly through the city in a semi-autonomous manner" to engage and fix the enemy (Sullivan & Elkus, 2009, p. 6). Sullivan is alluding to what has become the focus of this thesis: the need in American policing for the development of initial response strategies that reduce the need for centralized command and control and awaken a renewed emphasis on small teams and front-line leadership. In the sections that follow, I will summarize the literature in order to identify gaps, if they exist, and to synthesize the information in order develop the research questions to be explored in this thesis.

### 1. Paramilitary Terrorism: A Neglected Threat To the Homeland?

The November 26, 2008, terrorist attacks in Mumbai, India (26–11)[2] served as a wake-up call for law enforcement agencies across the United States. Few had previously considered the possibility that Islamic terrorists might attack using readily accessible, conventional weapons, take hostages, and engage responding police officers (NYPD, 2008, pp. 4, 48; Tallen, 2008). For good reason, the dominant schema for a terror attack in the U.S. and abroad continued to feature suicide bombers and weapons of mass destruction (WMD) (NYPD, 2008; Overseas Security Advisory Council [OSAC], 2008; Pradhan & Balachandran, 2009; Rabasa et al., 2009, p. 6; SCHSGA, 2009a, SCHSGA, 2009b). Between March 1993 and July 2006, 12 serious bombing attacks using improvised explosive devices (IEDs) killed 516 people in Mumbai (Pradhan & Balachandran, 2009, p. 4). In its analysis of the Mumbai attacks the Overseas Security Advisory Council (OSAC) profiled 13 terrorist attacks occurring in India between March 2003 and September 2008, all of which were bombings (2008, p. 15). Thus, before 26–11, "All other terrorist attacks in Mumbai city were by use of IEDs" (Pradhan & Balachandran, 2009, p. 4).

Despite the narrow focus brought about by the predominance of suicide terrorism and bombings, the warning signs had been present. Lashkar-e-Taiba (LeT) launched its first attack in Kashmir in 1990 and has since extended its reach deep into the Indian

[2] During the week of December 7, 2009, the author visited all attack sites in Mumbai, India and met with numerous Indian police officials and line personnel. The attacks of November 26, 2008, are commonly referred to in India as "26–11," perhaps in reference to our own 9-11.

homeland. The group has reportedly maintained networks in Mumbai since 1999 and has been tied to multiple attacks and attempted attacks in the area (Fair, 2009). The Mumbai attacks epitomized the modus operandi (MO) displayed by LeT for at least 10 years. According to Ashley Tellis, Senior Associate of the Carnegie Foundation:

> …the attacks in Bombay[3] reflect the LeT classic modus operandi: Since 1999, the group has used small but heavily armed and highly motivated two to four-man (sic) squads operating independently or in combination with others on suicidal—but not suicide—missions that are intended to inflict the largest numbers of casualties. (SCHSGA, 2009b, Tellis section, p. 6)

The dangerous problem for Mumbai officials—and potentially for officials in the United States—was that these tactics had not, before 26–11, come *home;* leadership remained complacent. After Mumbai, some recognized the danger and spoke out.

New York Police Department (NYPD) Commissioner Raymond Kelly said that the Mumbai attacks represented a "shift in tactics" (SCHSGA, 2009a, Kelly section, p. 4), and that the attackers "displayed a sophisticated level of training, coordination, and stamina," with shots "fired in groups of three aimed at head level," "used hand signals to communicate across loud and crowded spaces," and were "sufficiently disciplined to continue their attack over many hours" (p. 2). The March 3, 2009 attack targeting the Sri Lankan cricket team in Lahore, Pakistan served to fuel concerns. The European Strategic Intelligence and Security Center (ESISC) described the Lahore attack as the second "urban jihad" (including Mumbai) in less than four months and stated that it "could be also a proof of the implementation of new terrorist tactics" (Interaction Systems Incorporated, 2009, p. 8). The Mumbai attacks resulted in the capture of a young Pakistani terrorist, and he provided information which shed more light on the nature and reality of the threat of paramilitary terrorism.

Ajmal Amir Kasab was the only terrorist taken alive following the attacks in Mumbai and provided the Indian authorities with disturbing insights into the training of the attackers, their mindset, and their activities in advance of November 26, 2008

[3] Mumbai was formerly known as "Bombay," and some, even among Indians themselves, still prefer this name.

(NYPD, 2008; OSAC, 2008). Kasab was trained by the LeT in camps "in Mansera and Muzzarafabad in Pakistani administered Kashmir," where he (and presumably other attackers) "spent one year focusing on small arms tactics" and "close quarter fighting" (Government of India, 2009, p. 1; OSAC, 2008, p. 9). If indeed paramilitary terrorism was to become a primary tactic in the service of global urban jihadism, then LeT, and presumably other groups, were clearly recruiting and training the soldiers for the urban jihad.

Prior to Mumbai, many people persisted in imagining a future attack that would feature suicide and/or covert bomb attacks (NYPD, 2008; SCHSGA, 2009a, SCHSGA, 2009b; Tallen, 2008). The enemy, however, had other ideas, including multiple terrorists armed with assault rifles, military explosives, and improvised explosive devices (IEDs) attacking civilians in public places. A few thinkers, like John Robb (2007), recognized the new threat even before the events in Mumbai. In his presciently entitled, *The Coming Urban Terror,* Robb clearly describes the vulnerabilities inherent to the urban environment. Robb warned with frightening clarity of the "productivity growth that lets small groups terrorize at ever higher levels of death and disruption," telling us that cities are both the most likely destinations of and points of origin for a lethal new breed of urban terrorist (p. 1). Some may be tempted to think that that the American homeland is beyond the reach of the urban jihadists; the evidence proves otherwise.

That terrorist organizations such as Hezbollah, Al Qaeda and others maintain a presence in North and South America is well established in the terrorism literature (Bergen, 2008; Dyer, McCoy, Rodriguez, & Van Duyn, 2007; House Committee on International Relations, 2006).[4] LeT, directly responsible for the attacks in Mumbai, may also have a presence in the U.S. Ashley Tellis, Senior Associate, Carnegie Endowment for International Peace, has said that LeT operatives are known to be engaged in "fundraising far and wide, including in…the United States," as well as in "the creation of sleeper cells for executing or supporting future terrorist acts in Europe, Australia, and likely the United States" (SCHSGA, 2009b, Tellis section, p. 5). Clearly, there is

[4] See specifically testimony of Dr. Eitan Azani, Christopher Hamilton, and Ilan Berman.

significant concern among various thinkers that the threat of low-tech paramilitary terrorism is a growing trend that could easily be exported into the United States. We cannot afford to ignore the possibility that such an attack may occur in a U.S. city.

### 2. NIMS/ICS: The Right Tool for Law Enforcement?

Numerous sources document the birth of ICS out of late 1960s and early 1970s California wildfire fighting efforts (Buck, Trainor, & Aguirre, 2006; Franco, Zumel, Holman, Blau, & Beutler, 2009; The National Response Team, n.d.; Wenger et al., 1990; Yates, 1999). ICS, a predecessor of NIMS, evolved from emergency response programs developed in the 1970s to manage the response to extensive California wildfires and is "a disaster management tool based on a series of rational bureaucratic principles" (Buck et al., 2006, p. 1). Following a series of devastating wildfires resulting in significant loss of life and destruction of property, numerous deficiencies in the overall response to such events were identified, particularly when the response involved multiple agencies (Yates, 1999). ICS, and ultimately NIMS, became the solution.

The federal government, in adopting ICS as part of the *National Response Framework* (NRF) and *National Incident Management System* implicitly acknowledges that ICS has worked well in the firefighting arena. However, some social scientists and practitioners agree that ICS has been "less successful with law enforcement" (Buck et al., 2006, p. 4; Howitt & Leonard, 2005; Wenger et al., 1990). Klein (1999), in his work on decision making under stress, closely studied the California wildfire fighting arena from which ICS emerged. Klein makes numerous observations regarding the characteristics of the core California leadership and management teams that ultimately invented ICS. For example Klein observed, "The people fighting forest fires have plenty of first hand experience…*They are fighting an adversary that does not change tactics or add new weapons so the experience gained one year applies the next* [emphasis added]" (1999, p. 237). The originators of ICS were people who had worked side-by-side for years, repeatedly making similar tough decisions together. Proficiency among this group resulted from experience, stability of leadership talent and leadership networks and, critically, from the *unchanging* nature of the adversary they faced year after year (Klein,

1999, p. 237). Klein noted that these factors are not present for military decision makers; neither are they, by and large, for those in law enforcement facing an extreme and novel threat executed by a sentient opponent.

An interesting aside for further consideration is Klein's conclusion that the very factors leading to the success of ICS within its originating work groups—stability of leadership, relationships, and networks—are unlikely to be present for many of the work groups on which the federal government now seeks to impose NIMS/ICS. For example, during the Columbine High School shooting, Littleton Fire Chief William Pessemier attempted to establish a unified command (Rosegrant, 2001a, p. 10). "We worked hard to integrate that operation," said Pessemier, "but part of the problem was that I had never met" the police incident commander "before in my life;" "we didn't have a real strong relationship with many of the law enforcement agencies in the local area" (Rosegrant, 2001a, p. 10). NIMS/ICS is represented as a command and control structure that can be readily implemented by ad hoc teams representing diverse sectors and organizations (DHS, 2003; DHS, 2004). If as Klein asserts, this was not the nature of the environment from which ICS actually emerged, then the unquestioned assumption that NIMS/ICS is a ready-to-serve command solution for *all* inter-agency work teams may be flawed and is a question for future research.

Howitt and Leonard (2005) highlighted the concerns with ICS and its application for law enforcement that are most relevant to our present focus on the emerging threat of paramilitary terrorism: "For firefighters, [N] IMS was a creative—even necessary—managerial invention…for law enforcement in the U.S., by contrast, the answer is less certain" (p. 41). Buck et al. (2006), in summarizing the findings of Howitt and Leonard (2005), make a critical observation:

> ICS works for the fire services because they have been able to reduce the level of uncertainty in their disaster responses. This bodes poorly for large disasters which often involve...multiple hazards occurring in close

> temporal and spatial succession…with multiple agent-generated demands.[5] (p. 5)

These types of problems were exemplified at Columbine High School, where "incident command seemed to have slipped" (Rosegrant, 2001a, p. 14). Undersheriff John Dunaway and Lieutenant Dave Walcher, Jefferson County Sherriff's Department, conceded to Rosegrant (2001a) that "the response did not meet a textbook case of incident command" and questioned "whether a more formalized structure would have been appropriate" (p. 14). The "fast evolving demands of the situation, the number of responding officers…argued against imposing a rigid structure under one lead agency" (Rosegrant, 2001a, pp. 14–15). Undersheriff Dunaway said, "I don't think incident command was ever intended to be used for combat operations and that is basically what we were dealing with" (Rosegrant, 2001a, p. 15).

Buck et al. (2006) make a strong case that ICS, "now for the first time a full-fledged federal bureaucracy," is dependent upon the characteristics of the incident *itself* for success, as opposed to effective *implementation* of a command structure such as NIMS/ICS. This suggests that the nature of the event is an important determinant of the applicability and success of NIMS, implying that the utility of NIMS/ICS is a variable whose value can be determined as function of the crisis type. They argue that ICS works when the crisis at hand is sufficiently "limited to allow an organized response to it, as well as to generate the sort of demands for which" first responders train (Buck et al., 2006, pp. 16–17).

Writing 16 years before Buck et al. (2006) and Wenger et al. (1990) offered an almost identical observation, noting frankly that the loss of communication, "conflicting directives, overlapping command, and confusion over decision making authority" they observed within ICS resulted not merely from poor planning or training but "from the problematical nature of disaster occasions themselves, the uncertainties and contingencies" inherent in crisis scenarios (p. 9). Some may argue that such observations recorded in 1990 are no longer relevant, but Donahue and Tuohy (2006), reviewing

[5] Agent-generated demands are "specific to the situation and cannot be entirely anticipated" (Buck, Trainor & Aguirre, 2006, p. 3); see pages 12–13 of this thesis for discussion.

multiple disaster events, made similar observations (p. 6). Thus, ICS, while perhaps well suited for managing the types of events for which it was originally developed, may not, in its present form, work well for *all* phases of *all* crisis types, such as the paramilitary attacks of 26–11 in Mumbai.

The attacks on innocent citizens in Mumbai unfolded so rapidly that numerous persons were already dead before a thought could be given to the establishment of command and control (Pradhan & Balachandran, 2009; Interaction Systems Incorporated, 2009; Las Vegas Metropolitan Police Department [LVMPD], 2010; NYPD, 2008).[6] Using call logs obtained from the Mumbai Police, Kamte (2009) describes the chaos and confusion that prevailed as authorities attempted to make sense of the information that poured into the police control center. From the time the attacks started until 0200, November 27, the Mumbai police control room was overwhelmed, receiving 4.5 calls per minute (Pradhan & Balachandran, 2009, p. 10). Initially, Mumbai police could not grasp the situation facing their city.

Due to the "sudden and enormity" of the tactics employed, the police thought there were far more attackers than were actually present (Pradhan & Balachandran, 2009, p. 10); "We thought there must have been 60 instead of only 10" (H. Roy, personal communication, December 8, 2009; Pradhan & Balachandran, 2009, p. 48).[7] There were five teams of two attackers in Mumbai on November 26, 2008, and each team initiated its attack on a different target commencing at approximately 2120 hours (Pradhan & Balachandran, 2009). Adding to the chaos, bombs had been placed in two taxi cabs, and detonated at other locations in the city[8] (LVMPD, 2010; NYPD, 2008; Pradhan & Balachandran, 2009).

Meanwhile, without benefit of effective centralized command and control, regular police officers around the city were doing their best against attackers employing superior tactics and weaponry. As NYPD Commissioner Ray Kelly correctly observed, in these

[6] Even suicide pact and lone actor "active-shooters" in the U.S. have generated such immediate death tolls; see Rosegrant, 2001a, and Virginia Tech Review Panel, 2007.

[7] The author visited Jt. Comm. Roy in Mumbai on December 8, 2009.

[8] Wadi Bunder at 2156 and Vile Parle at 2253 (Pradhan & Balachandran, 2009, p. 10).

types of attacks, “by far the most casualties occur within the first five minutes” (SCHSGA, 2009a, Kelly section, p. 4). During the minutes between 2120 and 2200 hours, most of the 166 people killed throughout Mumbai were likely already dead or dying as terrorist assault teams initiated simultaneous attacks against four locations throughout the city (LVMPD, 2010; NYPD, 2008; OSAC, 2008; Pradhan & Balachandran, 2009).

The initial chaotic response to these types of events will precede establishment of centralized command and control, therefore, additional focus is needed on training and preparation to address this critical, “neglected” area (Tallen, 2008). *HSPD-5, the National Response Plan, and the National Response Scenarios* presume a terrorist threat that falls somewhere within the suicide-WMD terrorism realm, with a focus on prevention and consequence management. This has “left America ill prepared to respond quickly and effectively to a terrorist paramilitary attack, which may be far more likely” (Tallen, 2008, pp. 2–3).

### 3. NIMS/ICS: The Right Tool for All Crisis Types?

In summarizing the discussion to this point, it is clear that there is concern that U.S law enforcement is not yet fully prepared to respond to acts of paramilitary terrorism, particularly multiple, simultaneous attacks. Buck et al. (2006), in discussing the utility of NIMS to the realm of law enforcement, concluded that ICS works well when the crisis at hand is sufficiently “limited to allow an organized response to it, as well as to generate the sort of demands for which” first responders’ train (pp. 16–17). The concern is that a gap exists in the current modeling which must be filled in order to help prevent unnecessary loss of life in the event of a paramilitary attack in the U.S. Such concerns may be seen by some as unjustified attacks against NIMS generally, but this reaction is not necessary. In this section, we will review a body of literature that provides insight into certain aspects of crisis events that makes them *unique* (just as a multiple, simultaneous, paramilitary attack scenario will be unique, quite *different* from anything experienced thus far in America) and which helps explain the need for innovation.

Hillyard (2000), in evaluating organizational response to crisis situations, identifies three variables which determine the "crisis typology" and thus the effectiveness of a given crisis response (p. 250). The *intensity* of a crisis is increased when multiple problems are present in the same event; *complexity* refers to the number of public safety sectors involved in the response; *familiarity*—which applies most directly to our problem—refers to the frequency of occurrence of an event type; that is, to the level of experience first responders have in responding to the particular crisis. Thus, an event that is low in intensity, low in complexity, and high in familiarity, is seen as the simplest type of crisis and the most likely to be quickly and effectively resolved. Crises of *low-moderate* intensity and complexity and *high* familiarity are the types of crises for which NIMS was designed; NIMS has worked well for these types of events in the past and may be expected to work well under these conditions in the future (Buck et al., 2006; Hillyard, 2000).

On the other hand, *highly intense, highly complex* and *low familiarity* crises are seen as extremely difficult to resolve and are considered to be "systems in chaos" (Hillyard, 2000, p. 251). NIMS did not emerge as tool for managing systems in chaos and was not specifically designed for novel crises involving low familiarity with the event type. Crises appearing on the extreme end of Hillyard's spectrum are likely to be the *least* amenable to NIMS-based principles, particularly during the first critical hours of the response. Earlier scholars arrived at similar conclusions.

Quarentelli (1999) identified two types of demands associated with major incidents: response-generated demands and agent-generated demands (Quarantelli, 1999, p. 3). Response-generated demands are "those created by the response to the disaster and are amenable to strategic planning;" agent-generated demands are "specific to the situation and cannot be entirely anticipated" (Quarantelli, 1999, p. 3). Quarentelli (1999) concluded that ICS is a good tool for managing response-generated demands but is less effective in addressing agent-generated issues. The worst- case scenarios depicting paramilitary terrorism more closely conform to Quarentelli's concept of less predictable, agent-generated demands (Giduck, 2005; Pradhan & Balachandran, 2009). In an effort to analyze the manner in which the response to crisis changes as a function of the changing

nature of the crisis itself, some authors have attempted to reduce crisis events to component phases or stages.

Harrald (2006) conceptualized four stages in the response to "extreme events:" *initial response*, *integration*, *production* and *demobilization and transition* (pp. 260–261). The initial response "is conducted by resources on the ground reacting to the situation created by the event" (p. 260). In an extreme and novel event, this is the phase during which we will likely encounter extreme versions of Quarantelli's "agent-generated demands" and may face Hillyard's "systems in chaos" (Quarantelli, 1999, p. 3; Hillyard, 2000, p. 251). Quarantelli (1999), in struggling to define the term "recovery," found that the "general referent…is to part of what goes on in the *post impact* stage at some point after the crisis time period" of the disaster [emphasis added] (p. 2). Quarantelli thus implied the existence of an *impact stage,* which can be understood as approximating Harrald's *initial response* phase for a given event. Therefore, the effectiveness of NIMS/ICS can be conceptualized as a variable that will be evolving and changing as a function of the evolving stage of a given crisis.

The discussion so far in this review has emphasized a law enforcement perspective, which naturally focuses on the extreme *front-end* of the event continuum. Others, however, not specifically related to law enforcement, have observed that the usefulness of NIMS might began to wane *later* in the crisis continuum, before the conclusion of the long-term, post-crisis recovery phase. Since these observations also tend to suggest a more limited applicability of NIMS, and since they establish that challenges to NIMS are not limited to those advanced by the law enforcement community, we examine them here briefly.

E.L. Quarantelli and Russell Dynes (1977), Ohio State University, provided a thorough review of available literature of the period pertaining to the complex social nature of disaster response. They praised the research trends of the time, which were moving toward definitions of a "more social nature" and away from disaster research that had previously focused on purely physical issues (p. 24). The authors identified an increasing interest among researchers in the social organizational features of disaster response, including a movement toward a focus on *groups* as opposed to *individuals* as

subjects of investigation and lauded what they perceived to be a greater focus on systems and related concepts. These foundational insights are important to us because they provide the platform from which later researchers would question the ability of NIMS/ICS to manage crises beyond the initial recovery phases of disaster response.

Wenger et al. (1990), questioning universal applicability of ICS nearly 20 years before Mumbai, observed that "certain procedures and structures [ICS] have been advocated in an almost fad like way by well-meaning officials and vested interest groups in the emergency arena." Furthermore, they recommended critical evaluation and empirical validation of ICS before the system should be advocated or implemented in "too many jurisdictions" (Wenger et al., 1990, p. 12). These authors asserted that the ICS "arrangement may be appropriate to purely or primarily fire suppression activities, such as wildfires. However, when other types of disasters occur that require a broad ranging response from a number of different organizations, ICS may work against coordination" (Wenger et al., 1990, p. 9). Moreover, the authors argued that ICS is "particularly weak in effectively integrating the activities of relief agencies and volunteers," which "were ignored" in the cases they studied (Wenger et al., 1990, p. 9).

Quarantelli (1999), in later attempts to define what is meant by the term "recovery," described it as the "post impact stage at some point after the crisis time period of the disaster" and wrote extensively regarding the role of informal networks and organizations, including families and volunteers. Quarantelli also touched on political considerations, which, he asserted, strongly affect the recovery process; one "would be naïve to think that…no political factors enter into the relevant decision making and the providing of recovery aid" (p. 9).

Recently, Buck et al. (2006) summarized the rather extensive body of literature which describes the social complexities involved in disaster recovery, concluding that "NIMS ignores the evidence that disaster reconstruction, recovery, and mitigation are intensely social processes dominated by preexisting social power differentials and economic and political interests" (p. 18). Donahue and Tuohy (2006), without attacking NIMS/ICS directly, arrive at similar conclusions. In their review of multiple disaster events occurring nationally, they describe organizations which refuse to coordinate,

cooperate and even "find themselves in competition" for scare recovery resources (p. 6). The *emergency operations center* (EOC), they assert as the "primary [ICS] mechanism for resolving resource-allocation struggles…is often ineffective" (p. 6). Thus, there is much in the literature to suggest that NIMS/ICS, as a structure, has been ineffective in coordinating the efforts of informal groups such as non-governmental organizations and volunteers, and furthermore, that the structural nature of NIMS/ICS teams may lead to a lack of authority and jurisdiction necessary to manage the deep processes of recovery through to completion.

Wenger et al. (1990) had begun expressing concerns about ICS long before the events of 9-11 or 26–11. They point out that ICS has been represented as a "cure-all" for all disaster situations and that "there are reasons to be skeptical of patent solutions" (p.8). Nearly 20 years later, Bellavita (2009) echoes those concerns, observing that the NIMS doctrine was "'laid down as true' in the early days of homeland security," and "was the policy equivalent of finding any needle in a haystack, instead of looking for the sharpest needle" (Moody & Bellavita, 2009, Introduction). This thesis suggests that NIMS is a good needle but is one which could be made sharper through informed debate.

### 4. Supplementing NIMS: Filling the Gap

Despite the recognition and articulation of a new type of terrorist threat, much of the national homeland security effort—at all levels—continues to proceed under the assumption that NIMS, with its focus on prevention and recovery, is the only necessary solution for an uncertain future (Tallen, 2008). Consequently, little has been written to call for redress. In reality, there is no need to believe that NIMS/ICS must be abandoned in its entirety; on the contrary, there is every reason to believe that its usefulness in managing crisis consequence and recovery, especially when multiple-jurisdictions are involved, can continue to evolve and to improve. The urgent need, however, is for discourse around the question of *when* and at what points in disaster response NIMS may be best applied, and what, if any, alternatives might be explored in order to fill existing gaps.

This thesis will focus on the extreme front-end of the continuum, the stage at which novel events arise and where the initial law enforcement response occurs; for it is here, during the sudden appearance of an extreme and novel event such as a paramilitary terrorist attack that the limits of centralized command and control, including communications technologies, will likely be exceeded. It appears that the window of opportunity for NIMS will begin sometime *after* commencement of the initial response phase. If NIMS/ICS is unable to define or manage the nature and parameters of the initial law enforcement response to an extreme and novel event, or to stimulate the type of preparation and training that law enforcement (indeed, that *all* first responders) will require, then it follows that more than NIMS is needed. It is the critical "more than NIMS" component of our equation that is has received the least attention thus far in the literature.

In their *Preventing Another Mumbai: Building a Police Operational Art*, John Sullivan and Adam Elkus (2009) remind us that we have yet to learn the lessons of Mumbai, which center on "command and control failures" and slowness and disorganization of tactical response" (p. 4). Sullivan and Elkus assert that these problems—for the police in Mumbai, and by implication, for police in the United States—were not simply the result of poorly trained or poorly equipped police forces. The problems, they argue, "are rooted in a central doctrinal flaw," which they see as the inability of conventional urban police forces to envision and to manage more than a single tactical event at a time (p. 4). Current urban policing models (yet uninformed by our growing awareness of a new threat) envision crisis response as involving "a series of tactical engagements," rather than a "campaign" in which they must engage "multiple incidents in multiple locations over time" (p. 4).

In fairness, Sullivan and Elkus (2009) point to other failures in these attacks, such as those in intelligence and counterterrorism capabilities; however, they ultimately emphasize the command and control failures that "allowed" the attack to succeed (p. 5). Most telling, however, is the fact that the solutions they recommend *do not* call for improving or strengthening NIMS/ICS or for other efforts aimed at strengthening existing command and control models. Instead, they recognize the need for ordinary law

enforcement personnel to train to respond to such events in the absence of ubiquitous centralized command and control. The U.S. Marine Corps (USMC) would concur.

The command and control doctrine of the USMC dismisses as invalid the pursuit of complete or "omnipotent" command and control, and accepts the reality that "commanders are not really in control" of widely dispersed often isolated resources (U.S. Marine Corps, 1996, p. 42). The "proper objective is not to be thoroughly and precisely in control" but to loosely influence field resources in a fashion that is "more akin to the willing cooperation of a basketball team" than to the "omnipotent direction of the chess player" (p. 42). Thus, "The aim is not to increase our *capacity* to perform command and control. It is not more command and control that we are after. Instead, we seek to decrease the amount of command and control that we *need*" (U.S. Marine Corps, 1996, p. 110). Sullivan and Elkus (2009) correctly assess that "small teams must quickly move through the city in a semi-autonomous manner" to engage the threat (p. 6), reminding us of what it is law enforcement responders must do *before* centralized command and control structures can be established. The authors conclude that much of the initial work will be the responsibility of "ordinary police," not specialized teams, who must be trained, as they have been in Europe and Israel, to provide "full-spectrum" policing (Sullivan and Elkus, 2009, p. 6). "Ordinary police," and not specialized tactical teams, will be required to "fix the threat in place," since local police cannot, when people are dying, afford to await the arrival of "high quality special operations forces" (Giduck, 2005, p. 361; Sullivan & Elkus, 2009, p. 6). Several important law enforcement leaders in the United States have initiated planning intended to fill this gap.

New York Police Department (NYPD) Commissioner Raymond Kelly testified that the Mumbai attacks represented a "shift in tactics" (SCHSGA, 2009a, Kelly section, p. 4); accordingly, the NYPD has played a leading role in adapting to the new threat. Echoing Sullivan and Elkus, Commissioner Kelly has said, "Part of the reason that members of Lashkar-e-Taiba were able to inflict severe casualties was that, for the most part, *the local police did not engage them* [emphasis added]" (SCHSGA, 2009a, Kelly

section, p. 4).[9] Kelly recognized the urgent need for the NYPD to alter its most basic tactics in order to meet the new threat. "Heavy weapons training" would occur "more widely among officers," meaning that patrol officers, and not just specialized tactical units, would be trained (SCHSGA, 2009a, Kelly section, p. 4). By December, 2008, NYPD "police recruits received basic instruction in three types of heavy weapons" (SCHSGA, 2009a, Kelly section, p. 4). Of critical importance is Kelly's realization that "multiple simultaneous attacks such as those in Mumbai" would spread NYPD tactical teams "too thinly," thus necessitating the need to develop new training and tactics for front line patrol officers (SCHSGA, 2009a, Kelly section, p. 4). America's largest urban police force had quickly realized that American tactical doctrine, which emphasizes reliance on specialized tactical teams, has its limitations. But this was not the first time in recent history that a fundamental American policing doctrine had been challenged.

The long-standing doctrine of *isolate, contain, and call SWAT* was shattered following the 1999 shooting at Columbine High School in Littleton, Colorado. There was sudden realization among police leaders and tacticians that the American urban policing model was *doctrinally* flawed; this resulted in a veritable watershed event in American policing. American police patrol forces would, under certain conditions, act immediately to engage "active" suspects. Shooters such as those involved in the Columbine incident, as well as in subsequent events reminiscent of Columbine, were dubbed by police tactical practitioners as "active shooters," and it was apparent that American law enforcement would need to rapidly adapt its tactics in order to address this trendy and deadly new threat.

"Active shooters" are assailants who are *actively* engaged in seeking out and firing on innocent victims, and the traditional American policing model (*isolate*, *contain*, and *call SWAT)* had proven indefensible in such cases. Tactical experts such as Frank Borelli (2005) noted, "'Surround and contain' became the patrol doctrine norm" in American policing, observing that for Columbine style active shooter incidents, "the law

[9] More accurately, due to systemic programmatic shortfalls, Mumbai police beat officers were unable to effectively engage the attackers; police officers did indeed engage the attackers, as evidenced by the fact 17 Mumbai and Railway police officers were killed and 35 injured in the immediate fighting following the initiation of the attacks (Pradhan & Balachandran, 2009, Appendix 2).

enforcement community has had to evolve again to depend on patrol officers to take aggressive action to resolve deadly situations" (see also Sullivan & Elkus, 2009, p. 5). Police officers responding to such events could no longer be trained simply to isolate, contain and wait for SWAT.

Fretz (2007a) has asserted, "There is an extreme urgency for patrol officers to know how to make entry and deal with these situations, rather than waiting and containing the scene in anticipation of SWAT's arrival" (p. 2). Even in large urban areas with full time tactical teams, response times for such teams would result in additional casualties, some of which would inevitably occur as patrol officers, lacking sufficient weapons and training, stood by, unable to intervene (Rosegrant, 2001a). Armellino (2007) noted, "It becomes the duty of the first responder to interrupt this murderous plan…at the earliest possible moment" (p. 2). The "original strategy of 'contain, isolate, and negotiate' fails in the active shooter situation. If you exist in a model that cannot work, you'll have a disastrous ending" (Fretz, 2009b, p. 4). The specter of paramilitary terrorism added sudden emphasis to the problem, spurring NYPD Commissioner Ray Kelly to demand further changes at the NYPD.

The NYPD was the first agency in America to take action to address flawed tactical doctrine, but it was not alone for long. By the spring, 2009, Los Angeles Police (LAPD) Chief William Bratton, former chief of both Boston and the NYPD, introduced a major effort to innovate significant change in police response doctrines, which were clearly not seen as sufficient when set against the events of 26–11. The *Multi Assault Counter Terrorism Action Capabilities* (MACTAC) project is a highly ambitious, multi-agency program specifically intended to counter the threat of paramilitary terrorism (LAPD, 2009). In stating that "The MACTAC project also involves officers and supervisors with special weapons expertise, counter terrorism tactics experience and several military personnel who have recently returned from tours in the Middle East" (LAPD, 2009) Bratton explicitly acknowledged the inadequacies of current American urban policing doctrine (LAPD, 2009).

Chief Bratton officially acknowledged that both the military, and more specifically, those who had served in the Middle East, had something to offer to an

anachronistic American urban policing model. Bratton could not have made the point more clearly:

> …when a multiple assault event occurs, the Department will immediately switch from our community policing patrol-ready mind set to a rapid response-ready capability in a matter of minutes, not hours. We have learned from our New York counterparts and those across the globe that minutes save lives during such events. (LAPD, 2009)

Clearly, when dealing with well-trained, highly determined paramilitary terrorists—urban jihadists—Chief Bratton believes American "community policing" is not the answer. Where, we must ask, does American law enforcement go from here?

## C. RESEARCH QUESTION

India's *High Level Enquiry Committee on 26–11* observed that "in general the Mumbai Police initially responded to multi-targeted attacks efficiently, but *in a manner that they usually respond to a law and order situation* [emphasis added]" (Pradhan & Balachandran, 2009, p. 10). This thesis seeks to explore the following primary question: Will it suffice for American first responders to simply respond in a manner that we "usually respond to a law and order situation" when faced with acts of paramilitary terrorism in the homeland? This question is investigated by examining several of its obvious corollaries:

- Has the time come, yet again, for American first responders to seriously question existing emergency response doctrine?

- Whether or not NIMS—or the federal government—has a role in helping to prepare U.S. first responders to confront the unimaginable challenges of an American version of Mumbai, Lahore or perhaps Beslan,[10] is there a need for innovation at the local level?

[10] On September 1, 2004, Middle School Number One, Beslan, North Ossetia, Russian Federation, was the focus of an overwhelming attack by Sunni Muslim Chechen separatists who took more than 1000 people hostage and murdered nearly 200, many of them children, before being killed by Russian Special Forces (Giduck, 2005).

- How should first responders—law enforcement as well as fire and medical services—plan to respond when facing multiple Fidayeen (high-risk commandos) attacking multiple locations with unimaginable determination and ferocity?

## D. METHODOLOGY

The methodology employed in this thesis is best described as a hybrid combination of *policy analysis*, *case study*, and *grounded theory* (Bardach, 2009; Leedy & Ormrod, 2005). NIMS, the National Response Scenarios (NRS), and the policies of most local first responder agencies in the United States do not yet address the gap this thesis purports to identify. This thesis asserts that first responder policy—at all levels of government—should begin to include an acknowledgement of the threat of paramilitary terrorism. Such policies, once crafted, should drive formulation of the training and tactics that first responders will need in order to respond safely, effectively and *immediately* should a Mumbai style attack be visited upon targets in the United States. Because the foregoing represents the primary assertions of this thesis, analyses of existing policy relating to issues including *NIMS/ICS, law enforcement, fire, and medical response doctrine*, as well as the doctrine and policies of the *Indian government prior to the attacks in Mumbai*, are included.

The case study component is perhaps the most straight-forward. The paramilitary attacks against the city of Mumbai in November 2008 have provided the impetus necessary to seriously engage a number of thinkers in the United States in examining current emergency response doctrine. Thus, I have relied heavily upon my own firsthand observations of the locations targeted in the city of Mumbai, the operations of the Mumbai city police, the Maharashtra Railway police, and the Indian Police Services in gaining an intimate understanding of the events that thrust that great city, her people and the threat of global paramilitary terrorism to the fore.

Many individuals within the police services of Mumbai, though quite restricted within the guarded bureaucracy of the Indian system, exercised impressive candor in sharing with me their experiences and observations about the attacks, the aftermath and

the future ramifications for urban law enforcement worldwide. With their trust and assistance, I have been able to locate several obscure official documents produced by the Indian government; wherever possible, I have relied exclusively upon these and other documents to establish key facts surrounding the Mumbai attacks.

Peering through the lens of the collective experiences and stories of Mumbai and her people, this thesis examines several mass shooting incidents that have occurred in the United States. No attack approaching the scale of Mumbai has yet occurred in the U.S.; however, in examining incidents that *have* occurred this thesis attempts to identify problems and challenges that U.S. first responders may encounter in a future paramilitary attack scenario. Building on the experiences of Mumbai, and through examination of the observations and experiences of many in the U.S. who have participated in mass shooting events in our own homeland, this thesis attempts to extrapolate from some of the collective lessons learned as a result of these experiences.

Finally, a primary methodological approach employed in this thesis has been to examine evolving social phenomena in an effort to suggest a future theoretical approach for application among the American first responder community. This type of practical approach, working from the ground up, is referred to as *grounded theory*, and its major approach is to "begin with the data and use them to develop a theory" (Leedy & Ormrod, 2005, p. 140). In order to "use" data "to develop a theory," one must necessarily subject data to interpretation. The interpretation of the data that is offered in this thesis is expected to be somewhat controversial.

Deeply entrenched and closely held dogma often become indistinguishable from the disciplines, organizations and individuals identifying most closely with them. NIMS/ICS, SWAT and other traditional response paradigms, such as *isolate*, *contain* and *call* in law enforcement and *tactical separation* of fire-medical assets from law enforcement, represent such dogma. Any data—or interpretation thereof—that is seen as challenging the status quo can be expected to encounter resistance from those who believe that current doctrine is adequate and that little or no change is necessary.

The analytical process involved compiling significant quantities of data from a variety of sources. From the existing literature, I complied and collated information pertaining to the Mumbai attacks themselves, as well as to mass shooting incidents that have occurred throughout the United States. The literature is replete with scholarly analyses of crisis events from inception to aftermath, and I drew heavily upon such analyses as well as on the recorded observations, comments and existing interviews of numerous practitioners who were present during the various crises examined. In addition, my work as a senior operations commander for the Las Vegas Metropolitan Police Department has provided almost unlimited opportunity for interaction and discussion of crisis response with a variety of experienced practitioners; these practitioners operate at all levels within many diverse organizations, including the Indian Police Service in Mumbai. In a decidedly qualitative process, the information was collated and coded and common themes and patterns were identified. These common themes and patterns form the basis for the arguments advanced in this thesis.

The overriding intent of this thesis has simply been to open the debate and encourage future study. Future research design might focus on the innovative new efforts now underway[11] to address the changing threat environment, and might seek to identify vulnerabilities and to suggest innovative new models—affecting command and control, first responder tactics, and inter-disciplinary tactical integration—which might help improve preparedness levels among the various disciplines within the U.S. first responder community.

[11] Such as the Multi-Assault Counter Terrorism Action Capabilities (MACTAC) concept discussed later in this thesis; see pages 52–53 for a discussion of this innovative new response program.

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# II. PARAMILITARY TERRORISM: POLICY IMPLICATIONS

## A. INTRODUCTION

The November 2008 terrorist attacks in Mumbai, India can be seen as a wake-up call for law enforcement agencies in Mumbai and across the United States (Pradhan & Balachandran, 2009; SCHSGA, 2009a,). Few had previously considered the possibility that Islamic terrorists might attack using readily accessible, conventional weapons, take hostages and engage responding police officers (NYPD, 2008, pp. 4, 48). As we will see, the dominant schema for a terror attack in Mumbai—and in the United States—had continued to feature suicide bombers and weapons of mass destruction (WMD). The failure of the Indian authorities to prepare for the *type* of attack carried out in Mumbai on 26–11 exacted a heavy toll: 166 innocent persons were killed—including 17 Mumbai City and Railway Police officers—and historic landmarks were scarred and forever condemned to stand as monuments to those who lost their lives (Pradhan & Balachandran, 2009). If the United States is to avoid a similar fate, we must heed the lessons of Mumbai.

## B. THE NEW URBAN TERROR: STEALTH BOMBS OR FIDAYEEN?

Neither India itself nor the city of Mumbai has been strangers to terror attacks. Lashkar-e-Taiba (LeT) launched its first attack in Kashmir in 1990 and has since extended its reach deep into the Indian homeland. The group has reportedly maintained networks in Mumbai since 1999, and has been tied to multiple attacks and attempted attacks in the area (Fair, 2009). Between March 1993 and July 2006, 12 serious bombing attacks using improvised explosive devices (IEDs) had occurred in Mumbai killing 516 persons; thus, before 26–11, "All other terrorist attacks in Mumbai city were by use of IEDs" (Pradhan & Balachandran, 2009, p. 4). In its analysis of the Mumbai attacks, the OSAC, 2008, profiled 13 terrorist attacks occurring in India between March 2003 and September 2008, all of which were bombings (p. 15). But these data do not tell a complete story. The LeT has employed the same modus operandi (MO) for at least 10

years. The dangerous problem for Mumbai officials—and potentially for us in the United States—was that these tactics had not come *home* before 26–11; leadership remained complacent.

The absence of Fidayeen assaults in Mumbai City "had perhaps led to a police mindset of thinking only of stealth bomb attacks" (Pradhan & Balachandran, 2009, p. 4). The "big incident" of November 26, 2008, which "created international sensation," was "different in nature ("Fidayeen" attack) from all other incidents which were bomb attacks through time devices" (Pradhan & Balachandran, 2009, p. 23). Consequently, security measures in India before 26–11 had focused on reducing vulnerability to explosives (Rabasa et al., 2009, p. 6). A similar mindset persists in the United States.

Prior to Mumbai, American policing collectively envisioned a future attack that would employ suicide bombers, vehicle borne improvised explosive devices (VBIED) or WMD (NYPD, 2008; SCHSGA, 2009a, SCHSGA, 2009b; Tallen, 2008). Even now, the *National Response Plan* and the *National Response Framework* "consistently profile the terrorist threat as a nexus of suicide terrorism and WMD," thereby serving to perpetuate an emphasis on covert attacks featuring explosives (Tallen, 2008, p. 3). The emergent paradigm envisions multiple terrorist teams armed with assault rifles, military explosives and IEDs attacking civilians in public places. Such tactics are known as "swarming" and are becoming all too common among terrorist organizations worldwide (Arquilla, 2010).

As General David Petraeus recently observed, attackers responsible for the January 2010 attacks in Kabul demonstrated "resilience and indeed a degree of sophistication" in executing "simultaneous attacks" against multiple targets (Shah, 2010, p. 1). The LeT has already proven in Mumbai that insurgent activities create "fungible skills that will eventually disperse throughout the world" (Jenkins, Crenshaw, Schmid, Weinberg, Ganor, Gorriti, & Gunaratna, 2007, p. 12). Arquilla (2010) describes Mumbai as "the clearest example" of the "gathering swarm." Some police leaders in the United States also recognized the danger and spoke out.

New York Police Department (NYPD) Commissioner Raymond Kelly acknowledged that the Mumbai attacks represented a "shift in tactics" and set the NYPD on a course to address the threat (SCHSGA, 2009a, Kelly, section, p. 1). Los Angeles Police Chief Bill Bratton said the LAPD is "developing doctrine to improve our readiness to respond to, and defend the City from attacks similar to that recently experienced in Mumbai" (LAPD, 2009). The European Strategic Intelligence and Security Center (ESISC) observed a pattern, referring to the March 3, 2009 attacks targeting the Sri Lankan cricket team in Lahore, Pakistan. The ESISC hailed Lahore as the second "urban jihad" (including Mumbai) in less than four months, asserting that it "could be also a proof of the implementation of new terrorist tactics" (Terrorism Open Source Intelligence Report [TOSIR], 2009, p. 8). Clearly, the events in Mumbai served to generate a justified new interest among some important Western law enforcement leaders and tacticians, but—as the Indian Police Service learned—*mere awareness can prove dangerously insufficient.*

Before 26–11, Mumbai police officials had considered the possibility of paramilitary assault and had attempted to implement programs intended to improve response capabilities for such incidents. In "the 1990s, Special Motor Cycle borne commandos" (sic) "were raised and trained" to prepare for a "response to terrorist strikes within the city;" these officers were trained in hostage rescue and in the use of special weapons, including the AK47 assault rifle (Pradhan & Balachandran, 2009, p. 18). As of "11/2/2000" the government had created 100 such "flying squads with two commandos each," of which Mumbai had been "allotted 46" squads (Pradhan & Balachandran, 2009, p. 18).[12] Furthermore, in 2003, Quick Response Teams (QRT), consisting of eight officers and 48 men,[13] were formed and received commando training from both the state and federal governments (Pradhan & Balachandran, 2009, pp. 11, 49–50). QRTs were

[12] Mumbai police officials are members of the Indian Police Service (IPS), and are subordinate to the Director General of Police for the state, in this case, the state of Maharashtra. The state government approves and regulates all local policing efforts, and had distributed "flying squads" to areas throughout Maharashtra.

[13] The officer corps of the IPS is distinct from line police personnel in much the same way the U.S. military officer corps is distinct from enlisted service members.

deployed in teams of one officer and 12 commandos, with a goal of responding to an incident within 10 to 40 minutes (Pradhan & Balachandran, 2009).

For various reasons, primarily a failure to recognize the importance of preparing for such attacks, these programs failed to play a significant role in confronting the attackers on 26–11 (Pradhan & Balachandran, 2009, pp.18, 49–50). Though on notice that such attacks were possible, the Indian "police mindset of thinking only of stealth bomb attacks" had resulted in a level of complacency that had allowed the state of readiness of these special teams to deteriorate (Pradhan & Balachandran, 2009, p. 4). In the U.S., we too are now on notice. As Arvada, Colorado, Police Chief Ron Sloan said after Columbine, "Once the unthinkable happens, then it's not the unthinkable anymore" (Rosegrant, 2001b, p. 8). A number of terrorist incidents involving assailants using conventional weapons have either previously occurred or have been planned in the United States. The planned attack on Fort Dix, New Jersey (2007) involved a "similar, low tech" tactic reminiscent of the Mumbai attacks (SCHSGA, 2009a, Collins section, p. 5), and both the Columbine High School (1999) and Virginia Tech (2007) shooting incidents resulted in high death tolls[14] exacted by assailants using conventional firearms (Rosegrant, 2001a; Virginia Tech Review Panel, 2007). An important difference, however, and one that demands our urgent consideration, is that the Mumbai terrorists were well-trained, well-armed, Islamist extremists, not the *lone fanatic* or *teenage suicide pact* actors seen previously in the United States (NYPD, 2008; SCHSGA, 2009a, SCHSGA, 2009b; TOSIR, 2009). In his, *The Coming Urban Terror,* Robb (2007) draws further parallels and cautions us to steel our cities against inherent vulnerabilities to "small-group terror and violence" (p. 1). The inability of the Indian authorities to predict and prepare for the coming storm would exact a high cost from the Indian people and their police services.

[14] Fifteen and 32 deaths, respectively.

## C. MUMBAI UNDER SIEGE: THE MULTIPLE, SIMULTANEOUS TERRORIST ATTACKS OF 26–11

On November 22, 2008, Ajmal Amir Kasab and nine other young Pakistani paramilitaries left the Pakistani city of Karachi on a terrorist mission to attack Mumbai, India (Government of India, 2009, p. 4; Pradhan & Balachandran, 2009; NYPD, 2008). Kasab, 22 years old, would to be the only terrorist taken alive following the attacks and would provide the Indian authorities with disturbing insights into the training of the attackers, their collective mindset and their activities in advance of November 26, 2008 (Pradhan & Balachandran, 2009; Overseas Security Advisory Council [OSAC], 2008; NYPD, 2008). Kasab had been trained by Lashkar-e-Taiba in camps "in Mansera and Muzzarafabad in Pakistani administered Kashmir," where he and other attackers "spent one year focusing on small arms tactics" and "close quarter fighting" (OSAC, 2008, p. 9; Government of India, 2009, p. 1).

Kasab was originally one of 32 candidates trained in a variety of subjects focusing on the knowledge and use of firearms, ammunition, grenades and other explosives, assembly of IEDs, counter-interrogation and pain-tolerance (Government of India, 2009, p. 2). Of the initial 32 candidates, 13 were selected for the operations in Mumbai; six however, were reportedly dispatched to Kashmir for undisclosed reasons, and three new members were introduced, bringing the group to its final configuration of five two-man teams (Government of India, 2009, p. 1). Ismail Khan, 25, of Pakistan's Northwest Frontier Province (NWFP), had been among the three newcomers, and became the mission leader (Government of India, 2009, p. 2). All attackers were from Pakistan and ranged in age from 21 to 28; the median age was 23 (Government of India, 2009, p. 2).

The group travelled at sea for several days, completing most of the trip aboard the hijacked *MV Kuber*, a fishing vessel of Indian registry and arrived at a point four nautical miles off the coast of Mumbai at 1600 hours, November 26, 2008 (Government of India, 2009, p. 5). Khan communicated with handlers in Pakistan, after which they killed the Captain of the *Kuber*, Amar Singh Solanki; the teams waited for darkness, then boarded an eleven-man inflatable dinghy and set out for the coast, arriving at Badhwar Park, in South Mumbai, at approximately 2030 hours (Government of India, 2009, pp. 4–5). The

attacks unfolded on the evening of November 26 as five two-man teams deployed into the crowded streets of Mumbai and calmly made their way to various predetermined targets throughout the city (Pradhan & Balachandran, 2009; Government of India, 2009; Las Vegas Metropolitan Police Department [LVMPD], 2010; NYPD, 2008).

The first report to police on November 26, logged at 2150, was of gunfire at the Café Leopold; two of the five teams had been assigned to target the Taj Hotel and made their way to their area using different routes (Pradhan & Balachandran, 2009; Government of India, 2009). Between 2130 and 2140 hours, the terrorists known as Hafiz Arshad and "Naser" took a brief detour from their trip to the Taj and entered the Leopold Café (Government of India, 2009, p. 6; Pradhan & Balachandran, 2009). Arshad and Naser threw at least one grenade and opened fire with automatic weapons, killing 10 and wounding many more within minutes (Government of India, 2009, p. 6). At 2150 hours, the attackers exited a side door into an alley and opened fire on several police officers who had rushed to the scene; police unit "Tourist 1 Mobile" reported by radio that "police driver was hit by bullet" (Pradhan & Balachandran, 2009, p. 31). Chaos and panic were already overtaking the Mumbai police as Arshad and Naser made their way down the alley to the nearby Taj Hotel.

Within a few minutes of the first shots at the Leopold, shots were being reported at the Taj. The terrorists known as "Shoaib" and "Javed" had entered the Taj through the main entrance at about 2138 hours (approximately the same time Arshad and Naser had attacked Leopold) and killed an estimated 20 people within "the first few minutes" of launching their assault (Government of India, 2009, p. 7). Taj Hotel security staff later explained that a mob of people had "attempted to rush into the hotel in panic when they learnt of the Leopold firing;" in the resulting confusion, Shoaib and Javed had most likely simply blended in with the crowds and were able to enter the Taj unmolested (Pradhan & Balachandran, 2009, p. 39). After attacking Café Leopold, Arshad and Naser quickly rendezvoused with Shoaib and Javed at the Taj, entering through a side entrance with access to numerous high-end retail shops; together the four made their way to the historic Heritage Taj tower, killing anyone they happened to encounter (Government of India, 2009, p. 7; Pradhan & Balachandran, 2009, p. 37).

By 2155 hours, four or five police officers armed with "one SLR, one .303" and their duty handguns had entered the Taj in hot pursuit of the attackers (Pradhan & Balachandran, 2009, pp.31–32, 36). The two terrorist teams had already attained the advantage of high ground by climbing the "royal staircase" of Taj Heritage from which they could engage the approaching officers (p. 37). In the resulting gun battle, one of the suspects appeared to have been injured by police gunfire, and Police Constable Rahul Shinde was killed by AK47 gunfire (p. 37). The terrorists continued to fire and drop grenades on the officers, who, despite injuries and significant tactical disadvantages, continued to engage the attackers for some four and one-half hours until the arrival of a team of Marine Commandos at 0227 hours, on November 27 (Pradhan & Balachandran, 2009, p. 37).

From the time the attacks started until approximately 0200 hours on November 27, the Mumbai police control room was overwhelmed, receiving 4.5 calls per minute (Pradhan & Balachandran, 2009, p. 10). Initially, Mumbai police could not grasp the situation facing their city. Due to the "sudden and enormity" of the tactics employed, the police thought there were far more attackers than were actually present (Pradhan & Balachandran, 2009, p. 10). Additional Joint Commissioner of Police Himanshu Roy recalled, "We thought there must have been 60 instead of only 10" (personal communication, December 8, 2009; Pradhan & Balachandran, 2009, p. 48).[15] Numerous calls for assistance from officers in the field overwhelmed radio channels and rendered them virtually useless, forcing field officers to attempt communication with the control room using cell phones (p. 10).

Meanwhile, similar events were unfolding at the Trident-Oberoi Hotel. At approximately 2155 hours, Police Inspector Bhagwat Kacharu Bansode, armed with only a revolver, entered the Trident in response to reports of explosions and gunfire that he had received at 2151 hours (Pradhan & Balachandran, 2009, p. 39). Upon entering the lobby, Bansode realized there had been a "big attack" (p. 39). All of the killings on the first floors of the two towers had already occurred; bodies were laying in and around the

[15] The author visited Jt. Comm. Roy in Mumbai on December 8, 2009.

lobby, several restaurants, and the systems room; IEDs left in the valet area outside Trident and near the Oberoi lobby would explode at 2215 and 2230 hours, respectively (pp. 39–40).

Other officers arrived, and together, they made their way across a lengthy passageway leading to the Oberoi, encountering more dead bodies along the way.[16] As they would do at all other primary attack locations, the attackers (identified as Abdur Rehman and "Fahadulla") had acquired the high ground, in this case by ascending the Oberoi atrium, which is open to and overlooks the lobby below. From their vantage point, they continued to fire and drop grenades on officers. Local police continued to return fire and evacuate injured until the arrival of Naval Commandos at 0200 hours on November 27 (pp. 40–41). Confusion and chaos reigned, both in the field and in the control room, as police personnel attempted to decipher the bizarre events which seemed to be consuming their city.

Joint Commissioner of Police (Jt.CP), Law and Order, K.L. Prasad, notified at home at 2147 hours by a personal contact, suspected a "gang war;" Prasad called the control room and ordered additional units into South Mumbai (Pradhan & Balachandran, 2009, p. 32). Simultaneously, police officers and citizens were inundating the control room with reports of shots fired, explosions and injuries to officers and citizens at multiple, disparate locations throughout South Mumbai. Commissioner of Police, Additional Director General (Addl. DG) Hasan Gafoor, upon learning of the firing at Leopold, also "thought it was a gang war, but when he heard a bomb blast he knew it would be a terrorist strike" (p. 33). Still, neither Gafoor nor any of his men could fully grasp the scope of the attacks underway.

At approximately 2120 or 2140 hours, Ajmal Kasab and his teammate had entered the Chhatrapati Shivaji train station (Pradhan & Balachandran, 2009). Additional Director General of Police (ADG) Raj Khilnani, Chief of the Maharashtra State Railway Police, said, "The station was crowded with people—families—sprawled on the floor waiting for commuter trains to take them to places outside Mumbai" (R. Khilnani,

[16] The Trident and Oberoi are separate towers, part of the same hotel complex; they are connected by a long narrow hallway.

personal communication, December 2009; Pradhan & Balachandran, 2009).[17] Kasab and his partner would have literally waded through a sea of people as they made their way to the public restrooms carrying a heavy burden of firearms and explosives.

Incredibly, each attacker had been able to conceal and carry an AK-56 assault rifle (Chinese-made version of the Russian 7.62mm AK-47) with several hundred rounds of ammunition, hand grenades and "4-5 kg of greasy black RDX"[18] explosives (Government of India, 2009, p. 10; LVMPD, 2010; NYPD, 2008; Pradhan & Balachandran, 2009). The two men exited the restrooms and immediately lobbed hand grenades into the throngs of unsuspecting people; explosions were followed by the sound of automatic weapons as Kasab and his partner began firing on the terrified crowds (Pradhan & Balachandran, 2009). Fifty-two people were killed almost immediately, and another 108 were injured inside the CST alone (LVMPD, 2010; NYPD, 2008; Pradhan & Balachandran, 2009).

Between 2200 and 2225 hours, it had become clear that were serious problems at Nariman House, a Jewish center located in the Colaba Wadi section. The terrorist team of Babar Imran and "Nazir" had planted two IEDs of eight to 10kg of RDX each, one at a nearby gas station and another inside the building at the base of the staircase, and had commenced firing outside (Duraphe, 2009; Government of India, 2009, Pradhan & Balachandran, 2009). At 2200 hours, ACP Issaq Bagwan heard a large explosion coming from near the narrow passage on which Nariman House is located (Pradhan & Balachandran, 2009, p. 34). Bagwan rushed to the scene and, arriving alone, discovered a large and growing crowd, one person dead outside and a narrow street filled with debris (p. 34). Imran and Nazir had already attained the high ground and were dropping grenades from above; Bagwan acted immediately to cordon off the area and stop traffic. So began the long siege of Nariman House.

[17] The author visited ADG Khilnani at Chhatrapati Station during the week of December 7, 2009.

[18] A nitramine; still considered to be an important military explosive (GlobalSecurity.org).

Chaos and confusion erupted violently upon the city of Mumbai; it seemed the sounds of gunfire and explosions were everywhere at once. At 2156 hours, an IED exploded in a taxi at Wadi Bunder; at 2215 hours an IED blew up in the valet at Trident-Oberoi; at 2230 hours in the lobby of the same hotel and at 2253 hours, another IED destroyed a second taxi at Vile Parle (Duraphe, 2009; Government of India, 2009, Pradhan & Balachandran, 2009). None of the 10 attackers would attempt to negotiate surrender, and none would surrender voluntarily. It would be nearly 60 hours before the nightmarish scenario of 26–11 was ended by commandos of the Indian National Security Guards (NSG) commandos with the killing the last of the attackers inside the Taj Hotel (Pradhan & Balachandran, 2009, p. 39). After the event was ended, it would be months before India—and the world—began to gain a true understanding of what had occurred in Mumbai.

As New York Police Department (NYPD) Commissioner Raymond Kelly correctly observed, "by far the greatest numbers of casualties occur within the first five minutes" of an active-shooter type incident (SCHSGA, 2009a, Kelly section, p. 1). During the minutes between 2120 and 2200 hours, most of the 166 people killed throughout Mumbai were already dead or dying as each terrorist assault team initiated similar attacks at four primary locations throughout Mumbai (Brenner, 2009; LVMPD, 2010; Pradhan & Balachandran, 2009; NYPD, 2008; OSAC, 2008). The Indian Police Service had failed to capitalize on available information and opportunities that may have helped prepare its forces to effectively intervene against the paramilitary assault tactics employed on 26–11. We, in the United States, now in possession of critical, actionable information, have an opportunity to avoid a similar fate.

## D. HLEC ON 26–11: OVERVIEW OF FINDINGS AND RECOMMENDATIONS

The problems identified by the High Level Enquiry Committee (HLEC) and others span a broad spectrum of issues ranging from defects in police organizational structure, breakdowns in intelligence and information sharing and deficiencies in the overall capabilities of police first responders (Pradhan & Balachandran, 2009). In Mumbai on 26–11, the immediate and inescapable responsibility for the initial response belonged to

the cops on the beat. In the future, whether the next attacks occur in India, in the United States or elsewhere, neighborhood police officers will again be the first to answer the call. This fact was not lost on the HLEC, which, though impressed with the "speed and urgency with which the Mumbai police machinery, as a whole" reacted to "war-like planned terrorist" attacks on five different locations within the city, had serious concerns (Pradhan & Balachandran, 2009, p. 5).

Problems with the first response capabilities of the Mumbai police can be seen as falling into three primary categories: insufficient numbers of police officers; inadequate equipment and training and absence of locally-based specialized tactical response teams (Pradhan & Balachandran, 2009). The first two categories can be seen as a direct acknowledgement that police beat patrol officers bear the burden of the initial response to such events now and in the future. The third category is the result of the recognition by the HLEC that modern urban police forces maintain "their own" dedicated specialized tactical teams, since a "centrally set up force" (referring to the NSG based in Delhi) takes too long to respond (Pradhan & Balachandran, 2009, p. 19). While each of these issues has relevance for urban law enforcement in the United States and will be discussed at length, this thesis suggests that, as it pertains to numbers of officers, the American problem is of an entirely different nature.

The HLEC observed that in Mumbai, too few police officers are available for "normal policing" (Pradhan & Balachandran, 2009, p. 68). Although ensuring adequate numbers of police patrol officers can be seen as part of a comprehensive solution to the threat of paramilitary terrorism (and crime in general, for that matter), merely increasing the numbers should not be seen as a panacea. In Mumbai, a glaring problem centers on having *too few* police patrol officers, with too few—and inadequate—weapons, and insufficient training in the use of firearms. Conversely, policing in the United States is collectively facing a series of different problems concerning *numbers* of first responders, one which the Indian Police Services cannot yet appreciate: that of an *over convergence* of personnel. The following chapters will address several issues, including that of over

convergence, each of which, taken in the context of the attacks against Mumbai, represents an urgent cause for concern.

The attacks of 26–11 teach us that we must analyze and consider the current capabilities, strengths, weaknesses and expected role of initial emergency responders—our *first* first responders—whom we will expect to aggressively confront similar incidents, should they occur in America. Individual street cops in America are not so different from the individual beat cops in Mumbai, who suddenly found themselves tactically engaged with well-trained, well-armed paramilitary attackers. This thesis will focus on the role of America's first responders in the event we are faced with similar acts of paramilitary terrorism in our own homeland.

# III. MITIGATING AN AMERICAN MUMBAI: LESSONS FOR AMERICA'S FIRST RESPONDERS

On December 30, 2008, the government of the state of Maharashtra formed the *High Level Enquiry Committee (HLEC) on 26–11* and appointed Ram Pradhan and V. Balachandran to lead the investigation into the response of the Mumbai Police (Pradhan & Balachandran, 2009). The HLEC identified multiple systemic failures, including a "lack of overt and visible leadership in carrying out operations to face multi-targeted attacks" (p. 5), with an emphasis on "direct commando" attacks, which the committee stated "the Maharashtra police had not [previously] experienced" (p. 4). Police officers in Mumbai put up stout resistance against the attackers but were overwhelmed, both by tactics and fire power; "in general the Mumbai Police initially responded to multi-targeted attacks efficiently, but in a manner that they usually respond to a law and order situation" (p. 10).

Responding as we *usually respond* when faced with an extreme and novel event like paramilitary terrorism will cost lives unnecessarily, whether in India or in the U.S. Thus, the first and most important lesson of Mumbai is about *leadership*. Homeland security leaders at all levels and in all disciplines must acknowledge that the threat to America posed by paramilitary terrorism is real. Another important role for leadership is to continually re-assess the operating environment and to stimulate discussion and debate around existing doctrine and strategy. Unquestioned assumptions surrounding the sacred triad of *NIMS, numbers and SWAT teams* provide a rich environment for further exploration and research.

## A. CRISIS RESPONSE IN AMERICA: NORTH HOLLYWOOD, CALIFORNIA, 1997 AND LITTLETON, COLORADO, 1999

The best way to imagine what the American response to an incident like 26–11 would be to consider relatively recent examples of responses to similar events that have occurred in the United States. The problem is that there are no such examples. The attacks of 26–11 were *paramilitary* style attacks targeting unarmed civilians; that is, they

were carried out by multiple teams of civilians organized to function like military units, and trained in the use of military small arms and explosives.[19] Attacks involving this level of sophistication and coordination have yet to occur in the United States; still, examining the response to major shooting incidents that *have* occurred proves instructive. This brief analysis featuring the shooting incidents which occurred in North Hollywood, California (1997), and in Littleton, Colorado (Columbine High, 1999), will focus on two major problems facing America's *first* first responders: *over-convergence* and *lack of tactical-level integration of the police/ fire/ EMS response*. The incidents at both North Hollywood and Columbine resulted in enormous law enforcement responses, and Columbine, in-particular, serves to illustrate the collective challenges faced by tactical-level police, fire, and EMS responders.

### 1. Over-Convergence of Law Enforcement Resources

The 1997 North Hollywood "shootout" involved two highly determined, heavily armed, and well-trained bank robbery suspects in a gun battle with the Los Angeles Police Department (LAPD) that lasted nearly one hour (CNN, 1997; Johnson, 1997; Lait, 1998; Newton & Schuster, 1997; Schuster & Smith, 1997). The LAPD, a heavily resourced law enforcement agency employing nearly 10,000 police officers (LAPD Online, n.d.), mounted a massive response to this event; estimates of the response range from 200 to 370 police officers (CNN, 1997; McCarthy, n.d.). The event resulted in a "spectacular eruption of firepower" (Schuster & Smith, 1997, p. 1) that ultimately left the two suspects dead and 15 others, including 10 police officers, injured (CNN, 1997). LAPD Commander Scott LaChasse, credited for successfully managing the police response, described the incident as "absolute bedlam" (Newton &Schuster, 1997, p. 1).

LaChasse, now Chief of the Burbank Police Department, in Burbank, California, acknowledges that he did not know "how many people were involved in the robbery, we didn't know how many officers were wounded, or how many were responding" (Newton &Schuster, 1997, p. 2). Describing the complexities of the event, LaChasse said, "There

[19] Tallen (2008) uses "'paramilitary terrorism' to describe hostage-taking, asset seizure, siege, or assault when they are undertaken by sizable group of highly motivated individuals trained, organized, and equipped like an infantry or special operations unit but without the status or accountability of a state-controlled military force." I will employ this definition when using the term.

was no end in sight. We had to keep planning—is there another suspect? How do we deal with the perimeter? We don't want a suspect to get out with all the civilians trying to leave the area" (Newton &Schuster, 1997, p. 3). The challenges involved in managing a police response of this magnitude are staggering. LaChasse recalled, "People self-responded from all over the city. We couldn't know who they were or what frequencies they were on. We had to send runners out to try to identify them" (personal communication, February 9, 2010). LaChasse was describing features that are common to the American police response to major urban violence: over-convergence of personnel overwhelming command and control mechanisms.

Though separated by several years and thousands of miles, Commander LaChasse and his counterparts at Columbine would share a brotherhood born of the chaos created by extreme and novel crisis events. Over-convergence of law enforcement was well documented at Columbine, which "drew roughly 170 fire and EMS, and nearly 1,000 law enforcement personnel" (United States Fire Administration [USFA], 1999, p. 38). The chaos of extreme crisis, described by Commander LaChasse two years earlier as "absolute bedlam" (Newton & Schuster, 1997, p. 1), would be described in a similar fashion at Columbine by Chuck Burdick, Littleton Fire Department, who said the scene produced "absolute overload" (Rosegrant, 2001a, p. 21). Burdick said he "got to the point where I didn't hear anything. Not even gray noise—it was no noise at all. It was the strangest experience I ever had" (Rosegrant, 2001a, p. 21). Littleton Battalion Chief Ray Rahne, also working the chaotic scene, said, "I don't know where all these people are coming from. I didn't call them;" Rahne later recalled that he "finally just started screaming, 'Who's in charge?'" (Rosegrant, 2001a, p. 9).

No one could answer the question. Rahne lamented, "We had no staging, we had no base…we were getting all these self-dispatched people coming to the scene" (Rosegrant, 2001a, p. 9). Within minutes following the initial report to police, important ingress and egress routes were becoming clogged with emergency vehicles; Police Captain Mark Campbell recalled, "This was only 15 minutes into it, and I'd never seen so many police cars in my life" (Rosegrant, 2001a, p. 7). Incredibly, Campbell was forced to assign a SWAT team to contact drivers to move the vehicles and when this failed, to

physically lift the vehicles and move them out of the way (Rosegrant, 2001a, p. 15). This overwhelming, unmanaged—and unmanageable—initial response produced many of the same problems faced by the LAPD at North Hollywood two years earlier.

Fire, medical, and law enforcement personnel had limited ability to communicate with one-another, "and a rapid buildup of cell phone usage overwhelmed both the nearest tower and the dispatch center, thus hampering operations" (USFA, 1999, p. 34). One hour into the crisis, the Jefferson County Sheriff's communications center reported that it could not contact the Columbine command post "because both radio links and cellular phone lines were jammed;" in addition, the center had reached its capacity, was overloaded, and 911 calls were being routed to surrounding jurisdictions (Rosegrant, 2001a, p. 16). For fire personnel alone at Columbine, "communication was hampered due to sheer volume of radio traffic" (USFA, 1999, p. 20). For police, "Radios and cell phones and everything were absolutely useless…they were so overwhelmed with the amount of traffic in the air (Rosegrant, 2001a, p. 16). The problem of over-convergence complicates crisis response for all first responders, but is an especially pervasive problem for law enforcement.[20] Thus, law enforcement will need to lead efforts to find a solution to the problem, which, as the USFA (1999) observed, is a serious factor "complicating and compromising access/egress, site safety and security, and mission activities" (p. 2).

Law enforcement culture values independence over teamwork and is biased in favor of individual discretion and decision-making skills. This feeds a culture that "reinforces independent action over coordinated teamwork" (Templeton, 2005, p. 30) and creates a "'solo' characteristic" that "exists in stark contrast to firefighters who work in teams or in groups of teams" (Hagen, 2006, p. 17). The policing environment thus cultivates the ability of officers to work effectively as individual tacticians, which is a necessary feature for organizations which must widely disperse personnel to handle a diverse spectrum of calls for service, the overwhelming majority of which require the presence only one or two officers. This model works well for most calls police officers handle during the course of a single shift; however, as we have seen, when called upon to

[20] This is well illustrated in the Columbine incident, where 1000 police versus 170 fire/ EMS personnel responded (USFA, 1999, p. 38).

respond to major incidents requiring teamwork and coordination, quickly becomes unmanageable. In a strictly Darwinian sense, highly specialized organisms which predominate in one environment can quickly become endangered when that environment undergoes sudden change (Dawkins, 1989). To survive, successful organisms adapt. If the active-shooter phenomenon urgently signaled the development of important changes in our environment, what is the message to be conveyed within the threat of paramilitary terrorism?

The massive responses generated by the North Hollywood and Columbine incidents were directed at *single events each involving only two subjects*. Given the enormity of the responses involved (assuming current LE response paradigms), response to *multiple* attacks would almost certainly have exceeded the capacity of local agencies in both cases. As was very clearly demonstrated at North Hollywood and Columbine, the American urban policing model *automatically* generates a maximum response to extreme events using virtually all available resources. Such uncontrolled deployment of assets can be expected to seriously impede or preclude effective response to multiple event scenarios such as occurred in Mumbai.

Information as to total numbers of area law enforcement assets *unassigned* during the North Hollywood and Columbine events is not available for publication, however, it is safe to assume that multiple, simultaneous responses at the levels involved would have been out of the question. As Commander LaChasse stated, multiple attack scenarios would demand that commanders "would have to share resources" (personal communication, February 9, 2010). Thus, had the LAPD faced multiple simultaneous attacks that day, many of the 200–370 LAPD officers who responded to North Hollywood would have been needed elsewhere.

To facilitate resource sharing, says LaChasse, cops will have to learn that they "Don't go right to the scene. Squads will have to be held back in ready reserve" (S. LaChasse, personal communication, February 9, 2010). This approach represents a radical shift of current police response paradigms, including those intended to confront active-shooter scenarios. Tactical innovations designed to improve police response to active shooter events say nothing about the possibility of multiple, simultaneous attacks,

and continue to ignore the problem of over convergence. When the time comes to confront an *American Mumbai*, such oversights can be expected to produce unimaginably destructive consequences.

As we have demonstrated, when police forces commit the error of over-convergence, assets can quickly become heavily concentrated and partially confined within relatively small areas. Assets thus deployed are dangerously vulnerable to secondary attack and are not immediately available for deployment elsewhere "in-theater" (Sullivan & Elkus, 2009, p. 5). In American policing, over convergence does not represent an anomaly; unfortunately, it represents the rule rather than an exception. Two recent events in Las Vegas, Nevada further emphasize the frequency with which this critical problem continues to occur during the U.S. law enforcement response to major incidents.

In 2006, a single individual barricaded inside a Las Vegas apartment and firing on arriving officers fully occupied 75 percent of all on-duty LVMPD field resources, not including two SWAT teams fully committed to the event,[21] in 2010, a single shooter armed with only a shotgun generated a response fully consuming more than 60 percent of on-duty LVMPD field resources, as well as numerous untold numbers of law enforcement officers from other agencies (LVMPD, 2010). Another unfortunate example of this problem appeared on Thursday, February 25, 2010 when "about 200 officers from nearly a dozen agencies" responded to the tragic shooting death of two Fresno, California, area deputies; one witness told the Fresno Bee that "Everyone in the world showed up" (Fresno Bee, 2010). The single gunman took his own life and was later found inside his mobile home. Returning to North Hollywood, one is left to imagine the total numbers of LAPD area officers that responded to that incident and the proportion of on-duty assets the number represented; Commander LaChasse was never able to

[21] This event was also a very good example of everything that can go wrong during police response to a major incident; radio channels were overwhelmed, preventing field commanders from establishing command and control; ingress/ egress routes were choked to capacity creating significant response problems for critical personnel, etc.

determine the precise number (S. LaChasse, personal communication, February 9, 2010). In any event, over convergence represents a major obstacle to be overcome in policing in the United States.

As Giduck (2005) has well documented, observers in other countries have thought about and commented on this particular American vulnerability. In the United States, an event such as occurred in Mumbai or Beslan would result in a massive law enforcement response; the problem is "that all of the focus would be on the school" (or other primary target location). Other countries, notably Russia and Israel, have recognized "that the most visible actions of the terrorists…represent merely one part of the terrorist operation" (p. 341). Ten years later, Columbine High School, condemned, like various sites in Mumbai, to stand forever as a monument to the death of innocents, continues eerily to chant its mournful warning.

Before the chaos erupted at Columbine High School, an explosion and brushfire were reported in a field three miles from the school (Rosegrant, 2001b, p. 3). Suicide Pact actors Eric Harris and Dylan Klebold, high school students, had set up a diversion intended to pull first responders away from the primary target of their planned assault, the high school itself. At 11:22am, Littleton Fire and Jefferson County Sheriff's Departments dispatched units to an explosion and grassfire near Chatfield and Wadsworth, approximately three miles from the school; the person reporting stated that there was "a big ball of fire, now there is smoke" (USFA, 1999, p. 9). The diversion was a success in that it placed the Littleton Fire Department resources closest to Columbine "three times farther away from the high school than would have been the case if they had been in station" (USFA, 1999, p. 9).

In the case of well-planned paramilitary terrorist attack, there are likely to be others involved who are not directly associated with the primary attack location, including those conducting surveillance, planning to execute secondary attacks against first responders, or preparing to execute additional simultaneous attacks on other targets (Giduck, 2005). Giduck (2005) observes, "In Israel this is a foregone conclusion. As soon

as tactical units receive word of a terrorist assault, a number of the responding teams do not go anywhere near the site of the attack at all" (p. 341). Precisely this mindset must become part of a new American doctrinal mantra.

In summary, a primary problem facing law enforcement in the age of urban paramilitary terrorism involves finding ways to balance and manage the initial response to extreme and novel events; under conditions like those faced in Mumbai on 26–11, resources will become scarce very quickly. The new threat demands that American law enforcement cultivate a smarter, more disciplined culture of crisis response. A related problem that cannot be fully overcome until the problem of over convergence is resolved involves an overreliance on specialized tactical teams. Our *first* first responders will not always have the luxury of implementing the doctrine of *isolate, contain, and call SWAT*. Our approach to paramilitary terrorism will need to build on the lessons that have already been learned and implemented to address the problems presented by "active shooter" scenarios.

### 2. Overreliance on Specialized Tactical Teams

The traditional American policing model of *isolate*, *contain*, and *call SWAT* (Special Weapons and Tactical teams) has proven inadequate in confronting "active shooters" (assailants who are *actively* engaged in seeking out and firing on innocent victims). Tactical experts such as Frank Borelli (2005), noted that "'Surround and contain' became the patrol doctrine norm" in American policing, observing that for Columbine style active shooter incidents, "the law enforcement community has had to evolve again to depend on patrol officers to take aggressive action to resolve deadly situations." Arapahoe County Sheriff Patrick Sullivan said the "attack on Columbine was a 'wake-up' call for law enforcement, spurring it to reduce its reliance on SWAT" (Rosegrant, 2001b, p. 7).

Following Columbine, law enforcement was criticized—and sued—for being "too risk averse in the first minutes of the attack" (Rosegrant, 2001b, pp. 4–5). Critics began to suggest that, had the first arriving deputies pursued Harris and Klebold into the school immediately, the incident might have been ended sooner (p. 5). The immediate retort

from law enforcement was predictable. Rosegrant (2001b) reported her finding that, in the initial years following the incident, members of the law enforcement community "almost uniformly dismiss that contention" (p. 5). This collective denial was likely based on a range of factors, including emotional distress, denial, legal concerns, and an inability to envision, at that time, a different kind of response by patrol officers to such events. Has Columbine truly served as that "wake-up" call, or do we, 10 years later, remain in denial and irrationally attached to traditional tactical paradigms?

As has been demonstrated throughout this thesis, many people clearly recognize the implications of events such as Columbine and Mumbai, and are calling for redress. In *Mitigating Mumbai*, Burton and Stewart (2009) observed that American street cops "might be called upon to be the primary force to stop" paramilitary attackers operating in the U.S. (p. 4). The "standard police tactic of surrounding the attacker and waiting for the SWAT team to go in and engage the shooter was not effective" in confronting the active shooter phenomenon in the U.S., and it will not be, they reason, when confronting paramilitary terrorism (p. 4). Others are heralding the same message.

Ron Borsch, whose "stopwatch of death" tracks the increasing kill rate at active shooter events in the U.S., asserts that "time is the key factor" and "more cops need to be ready to go in and take care of business" (Fretz, 2007a, p. 2). Armellino (2007) asserts that "it becomes the duty of the first responder to interrupt this murderous plan…at the earliest possible moment" and that "first responding patrol officers are likely the only people on scene early enough" to save lives in such cases (p. 2). Fretz (2007b), interviewing multiple police tactical experts, writes that "Columbine is ancient history" and that "law enforcement is once again at a watershed" in terms of countering a "new model" for the active shooter (pp. 1–2). Chudwin notes that the "original strategy of 'contain, isolate, and negotiate' fails in the active shooter situation. If you exist in a model that cannot work, you'll have a disastrous ending" (Fretz, 2007b, p. 4). The doctrine of *isolate-contain-call* has proven unacceptable when innocent, defenseless persons may be dying a few feet away from responding officers.

The writers and thinkers quoted above are responding primarily to an increasing kill rate associated with active shooter events in the United States. Kill rates in active shooter events in the U.S. have risen from a low of one-half attempts per minute at the Texas Tower incident (1966), to 2.1 at Columbine (1999), to 7.9 at Virginia Tech (2007) (Fretz, 2007a, p. 2). Various factors, such as publication of details of attacks, access to information about prior incidents, and access to more destructive weapons are likely to continue to drive-up casualty rates in these types of events. However, such events, though increasingly deadly, continue to feature lone or suicide pact actors who are unlikely to achieve the destructive efficiency of paramilitary attackers as witnessed in Mumbai.

The collective thesis that is increasingly put forward by American police tactical experts focuses on the critical need to insert police tacticians into active shooter situations as soon as possible in order to stop, disrupt, or fix the attackers in place, thus limiting their ability to kill. At incidents where immediate action has been taken by police, an argument can be made that lives have been saved. In Red Lake, Minnesota, 2005, a "solo" officer entered a school with a rifle and shot an attacker who had killed seven and wounded seven; at Dawson College, Montreal, 2006, two officers who had been working nearby heard gunfire, entered immediately, and ended the event with one dead and 19 wounded; in Salt Lake City, Utah, an off-duty officer armed with a handgun pinned down an active shooter in a mall until the arrival of on-duty officers, ending that event with five dead and four wounded (Fretz, 2007a, p. 3).

A paradigm shift occurred in American policing which placed ordinary patrol officers at the forefront when confronted with active shooter scenarios; increasing kill rates have served to increase the pressure. Mumbai represents an active shooter scenario exponentially magnified beyond anything we have yet experienced in the United States, and demands further, broad-based re-evaluation of current doctrine. SWAT teams *will* come; however, delays are inherent with specialized teams, and delays cost lives and provide attackers time to create a tactical advantage (Giduck, 2005; Pradhan & Balachandran, 2009; Sullivan & Elkus, 2009; Tallen, 2008).

Delays in dispatching specialized teams, whose members are typically off-duty and at a distance, will dictate that the first arriving officers act immediately. If we can "attack right away, taking away the terrorists opportunity to fortify their positions, then the presence of negotiators becomes inconsequential" (Giduck, 2005, p. 366). Mumbai and Beslan teach us that terrorists cannot be allowed the latitude or time they need to kill or to consolidate during the first precious minutes following their initial assault on our citizens.

Our *first* first responders—patrol officers who will arrive within minutes of the first reports—will require the training, teamwork, and equipment necessary to fix terrorist elements in place, depriving them of critical momentum necessary to fully execute their plans, which may include booby trapping of access points, obtaining the high ground, and taking as many hostages as possible (Giduck, 2005; Pradhan & Balachandran, 2009; Sullivan & Elkus, 2009). Responding patrol officers will have no alternative but to act quickly and decisively when confronted with paramilitary terrorism; a major challenge will be to create a team-oriented culture in policing, while simultaneously providing the training and equipment necessary for success.

Preparing first responders to take immediate action when no other alternatives are available does not imply that SWAT teams have no role; SWAT teams will respond, but they too will face radical new challenges when confronting paramilitary terrorists. The active shooter phenomenon in the United States had the effect of dramatically altering response paradigms for *patrol officers*; however, for SWAT teams, it was largely business as usual. There is no longer room for business as usual, even among our very best. Tallen (2008) observes that even the best local SWAT teams in the United States "would be challenged by the paradigm shift involved in confronting paramilitary terrorism" because training is currently focused on "high risk warrant service, active shooters, and barricaded suspects" (p. 5).

Current tactics and procedures employed by urban SWAT teams are "dangerously incompatible with the requirements of combat against multiple, dedicated, heavily armed and fortified terrorists" (Tallen, 2008, p. 5). Therefore, SWAT team doctrine must be informed by and must change in response to what has occurred in both Mumbai and

Beslan, just as patrol response doctrine has been informed and changed by Columbine. SWAT teams confronting paramilitaries will be engaging in combat. They will encounter fierce resistance, possibly including booby traps and barricades, and hostages will be killed immediately once assault is initiated (Giduck, 2005).

The Indian and Russian military commandos who ultimately assaulted terrorist positions in Mumbai and at Middle School Number 1, Beslan, did so under extreme combat conditions not yet experienced by civilian law enforcement tactical teams in the United States (Pradhan & Balachandran, 2009; Giduck, 2005). When facing paramilitary terrorists, "unlike America's tactical doctrine of never moving past an area until it is completely secured," entry teams will need to move quickly past unsecured areas and "toward the sound of the battle or the known position of the terrorists" (Giduck, 2005, pp. 155–156, 352). This "reality" alone will demand significant adjustment to existing American tactical paradigms (Giduck, 2005, p. 156).

Slowly and carefully securing rooms is a technique that evolved in the arena of civil policing and was designed to ensure the maximum safety of entry team members under specific circumstances. These techniques have worked well, especially when dealing with civil policing functions such as search warrant execution and barricaded suspects. Such techniques would have been dangerously out of place in Mumbai or Beslan, where a primary tactical objective was to incapacitate terrorists in order to preclude further killing. Rapid access to and removal of injured victims will also be of critical importance; at Columbine, where entry had been made *after* the killing had stopped and the suspects were already dead, "children and one teacher lay bleeding to death while SWAT teams painstakingly cleared and secured every part of a large school" (Giduck, 2005, p. 352; Rosegrant, 2001a; USFA, 1999).

A number of lawsuits filed in the aftermath of the Columbine crisis—as well as "the most critical press coverage"—focused on the tragic fact that it took SWAT teams "two-and-a-half hours, once deployed" to locate injured teacher Dave Sanders

(Rosegrant, 2001b, p. 4), who died before being evacuated (Rosegrant, 2001a, p. 27).[22] SWAT teams took even longer to reach the library, where many student victims were located with the shooters, who had been dead since before or shortly after the teams made entry (Rosegrant, 2001a, p. 12). The paradigm shift envisioned in this thesis also emphasizes the need for cross-disciplinary tactical integration of ad hoc entry teams in these types of crises, to include explosives experts. The need for such integration was apparent and was called for in the wake of the Columbine incident, and was very clearly articulated among the list of lessons learned (Rosegrant, 2001a, p. 8). Eleven years later it appears that, throughout most of the country, emergency response remains stubbornly bifurcated for most of our *first* first responders.

Finally, no large local agency has *unlimited* SWAT resources; there are limits to the numbers of teams that can be assembled and deployed to a single incident. Multiple assault scenarios, such as occurred in Mumbai, will likely exhaust the response capacities of specialized units. NYPD Commissioner Kelly said that multiple, simultaneous attacks would spread agency tactical resources "too thinly" and would challenge our ability to provide fresh and rested tactical specialists for events of long duration (SCHSGA, 2009a, Kelly section, p. 4). Some events, such as North Hollywood (1997) and Mumbai, have resulted in deployment of incomplete tactical teams and individual team members with less than complete equipment (CNN, 1997; Johnson, 1997; Lait, 1998; Newton & Schuster, 1997; Pradhan & Balachandran, 2009; Rosegrant, 2001a, pp. 2, 48; Schuster & Smith, 1997). As the HLEC noted, when specialized teams are broken up and deployed as smaller units, they "lose their punch" (Pradhan & Balachandran, 2009, p. 12).

[22] SWAT Teams at Columbine faced multiple, overwhelming hazards and competing demands inside the school; team leaders had to guide their people through a dangerous web later determined to contain 76 explosive devices, including two large propane bombs, which had been placed inside the school (Rosegrant, 2001, pp. 29–30). Team leaders had every reason to believe that many of the devices they encountered could have been timed devices, set to explode at any second. SWAT teams felt compelled to search all areas they encountered because students and teachers had secreted themselves throughout the building, and needed to be located and removed immediately (p. 25).

## B. REDEFINING POLICE COMMAND AND CONTROL IN THE FACE OF PARAMILITARY TERRORISM

The traditional law enforcement focus on independent action and immediate self-response of all available resources represents a dangerous vulnerability when faced with paramilitary terrorism, especially multiple, simultaneous assaults. Individual tacticians responding *en masse* do not constitute teams, and will have great difficulty forming a coordinated team effort unless team effort and response discipline have been ingrained as part of a new police culture. Team effort and response discipline will permit commanders to "reduce the amount of command and control that we *need*" (USMC, 1996, p. 110), and will free them from unrealistic expectations for imposing *more* command and control upon "systems in chaos" (Hillyard, 2000, p. 251).

Extreme and novel events, such as multiple, simultaneous, paramilitary assaults, will introduce a rapidly evolving series of tremendous, unprecedented uncertainties. "The defining problem of command and control that overwhelms all others is the need to deal with uncertainty" (USMC, 1996, p. 54). Conversely, the defining problem for ICS, and later for NIMS, was the need to *manage resources* under relatively predictable crisis conditions (Buck et al., 2006; Donahue & Tuohy, 2006; Franco et al., 2009; Howitt & Leonard, 2005; Klein, 1999; Quarantelli, 1999; Quarantelli & Dynes, 1977; Templeton, 2005; Wenger et al., 1990; Yates, 1999). Thus the critical difference, as yet unacknowledged by NIMS, is the need for first responders to deal with uncertainty when faced with extreme and novel events. "Were it not for uncertainty, command and control would be a simple matter of managing resources," in which case systems such NIMS, which were designed to manage resources and consequences, might suffice (USMC, 1996, p. 54).

As it is, however, tactical level police, as well as fire and medical personnel participating in the response to extreme and novel events will be forced to accept "uncertainty as a fact and learn to function in spite of it" (USMC, 1996, pp. 77, 110). Thus, there can be no moral or ethical alternative to aggressive pursuit of the means "to reduce the amount of command and control that we *need"* when planning for the combined response to such events. Command and control cannot impose mechanistic

order upon inherently chaotic conditions, and should not seek to do so (USMC, 1996). Acknowledging this basic tenet, senior police commanders become free to focus efforts on the reasonable and proper purposes of command and control in such cases, which above all else, "should help generate tempo of action since we recognize that speed is a weapon" (USMC, 1996, p. 53).

Based on our knowledge of global events, such as Beslan and Mumbai, combined with our own limited experiences in the homeland, we can agree that rapid, effective deployment of tactical resources saves lives and disrupts the execution of tactical plans by our adversaries.

It follows that the business of establishing command and control should never be permitted to produce a degraded or sluggish tactical response, particularly when faced with active-shooter or paramilitary terror scenarios.

## C. THE FACES OF INNOVATION: AN AMERICAN ANSWER TO PARAMILITARY TERRORISM

Shortly after the attacks in Mumbai, New York Police Commissioner Ray Kelly recognized the urgent need for the NYPD to again alter its most basic tactics in order to meet the new threat (SCHGA, 2009a Kelly section). "Heavy weapons training" would occur "more widely among officers," meaning that patrol officers, and not just specialized tactical units, would be trained. By December, 2008, NYPD "police recruits received basic instruction in three types of heavy weapons" (SCHSGA, 2009a, Kelly section, p. 4). Of critical importance is Kelly's realization that "multiple simultaneous attacks such as those in Mumbai" would spread NYPD tactical teams "too thinly," thus necessitating the need to develop new training and tactics for front line patrol officers (SCHGA, 2009a, Kelly section, p. 4). America's largest urban police force had quickly realized that American tactical doctrine, which emphasized reliance on specialized tactical teams, had its limitations.

Within six months of the Mumbai attacks, Los Angeles Police (LAPD) Chief William Bratton began advocating a major effort to innovate major change in police response doctrines, which had adapted very slowly following the 1997 North Hollywood

shootout (LAPD, 2009).[23] In championing *Multi Assault Counter Terrorism Action Capabilities* (MACTAC), an ambitious, regional program which seeks to train officers to intervene immediately against multiple, simultaneous, paramilitary terrorist attacks, the LAPD, along with the Los Angeles County Sheriff's Department (LASD), the Las Vegas Metropolitan Police Department (LVMPD), and many others in the Southwestern Region overtly acknowledged an urgent need for further innovation. The nation's *first* first responders, those who would arrive almost immediately to confront an attack, would need retooling.

The Multi Assault Counter Terrorism Action Capabilities (MACTAC) project is "developing doctrine to improve our readiness to respond to, and defend the City from attacks similar to that recently experienced in Mumbai" (LAPD, 2009). Though the acronym was coined under Chief Bratton, the concept is the product of the efforts of numerous police professionals from throughout the southern California and Nevada region. MACTAC is continually evolving within the LAPD as well as within the LVMPD, and is largely a process of trial and error. The monumental challenges that must be addressed include that of police over-convergence, as well as crafting a truly inter-disciplinary operational response to meet the threat of paramilitary terrorism. Training and exercises have already begun within the LVMPD and elsewhere, and new procedures are being crafted, tested, modified, and shared.

One way that MACTAC will confront the problem of over-convergence is by identifying, in advance, those squads, officers, and supervisors that are authorized to leave their assigned geographical areas in order to respond to developing incidents. Unless requested, others will be required to remain in assigned areas to monitor "theater level" occurrences and incidents (Sullivan & Ellkus, 2009, p. 5), protect critical infrastructure, and, in some cases, respond to designated staging areas, where they would form small tactical deployment teams. Alluding to a paradigm shift *away* from an over-reliance upon specialized tactical teams (SWAT) to address acts of paramilitary

[23] Some believe that change is occurring too slowly even in Mumbai; see Magnier, 2009.

terrorism,[24] Bratton observed, "I fully expect the MACTAC doctrine will include an expansion of our Urban Police Rifle program, (and) improve tactics allowing for a rapid response to react and neutralize simultaneous incidents" (LAPD, 2009).

Tactics "allowing for a rapid response" will be critical to our success against attackers such as those seen in Mumbai, but tactical programs such as MACTAC will lean harder on line-level leadership than on centralized command and control. Such programs showcase the immediate, rapid deployment of first responders with the twin goals of stopping the attacks and seizing the initiative. Police officers, and their partners in other disciplines, will, like Krulak's Marines, often operate "'far from the flagpole' without the direct supervision of senior leadership," and in responding to an extreme and novel event, such as paramilitary terrorism, will face a "bewildering array of challenges and threats" (Krulak, 1999, p. 16). This is why "it is not more command and control that we are after. Instead, we seek to decrease the amount of command and control that we need." (USMC, 1996, p. 110). This type of discussion, which hints at greater militarization of domestic police forces, is sure to meet abundant opposition both inside as well as outside the emergency responder community.

Nowhere will the ambivalence be stronger than among senior leaders in local law enforcement, many of whom were indoctrinated in and strongly support the principles of community oriented policing (COP). Close partnerships among the police and their constituent communities have served American policing well, improving police-community relations, and, in many cases, helping to reduce crime.[25] While such staples of modern American policing cannot be compromised, neither can such principles function to blind us to the urgent need for the addition of innovative new tools. Even as the military seeks to train its forces to function skillfully in their evolving civil policing role in places like Iraq and Afghanistan, U.S. domestic police forces can and should learn from the experience of the military in combating paramilitary terrorism (Bolgiano, 2009; Freier, 2009; Mills, 1997).

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[24] See Tallen, 2008, for a discussion of this critical issue; see also Borelli, 2005, for background discussion of the evolution of "active-shooter" training in the U.S.

[25] For background and discussion of some of the various models of community policing, see Goldstein, 1990; Kelling & Coles, 1996; Trojanowicz & Bucqueroux, 1990.

Policing has always demanded that its practitioners maintain a diverse set of skills ranging from effective communications and interpersonal skills on the one hand, to the rapid, effective deployment of deadly force when necessary and appropriate on the other. The active shooter phenomenon, and more recently, the threat of paramilitary terrorism in the homeland, will no less demand broad-ranging skill sets among police practitioners. In the words of former Boston, NYPD, and LAPD police Chief Bill Bratton, "when a multiple assault event occurs, the Department will immediately switch from our community policing patrol-ready mind set to a rapid response-ready capability in a matter of minutes" (LAPD, 2009). The challenge for police leadership will be to balance these seemingly competing demands to ensure that the "switch" doesn't get stuck in one mode or the other.

If programs like MACTAC can be standardized and developed on a national level, then American police forces can better prepare themselves to withstand the initial, horrifying impact of multiple, simultaneous, paramilitary attacks on public places, and "the sudden and enormity" of the tactics employed (Pradhan & Balachandran, 2009, p. 10). SWAT teams, re-tooled to combat the organized ferocity of paramilitary terrorism, will comprise the "extraordinary force" that will be brought to bear after the attack has been fixed in place using "ordinary force", that is, "full spectrum patrol units capable of standing up to operational shock" (Sullivan & Elkus, 2009, p. 6). Next, we turn to what must also be considered a top priority: consolidation of *line*—or tactical level—operations with our fire and EMS partners.

# IV. POLICE, FIRE, AND EMS: TOWARD A FULLY-INTEGRATED TACTICAL RESPONSE TO PARAMILITARY TERRORISM

## A. POLICE, FIRE, AND MEDICAL: WORKING TOGETHER OR PULLING APART?

The American police and fire services face an inherent disadvantage in the case of paramilitary terrorism: response remains bifurcated against a single, unified threat. In preparing its after-action report following the Columbine High School attack, the USFA (1999), now an entity located within with the DHS, argued for cross-disciplinary training among fire, medical, and law enforcement personnel. In stressing the need to develop "Joint operations *and* unified command between law enforcement and fire/EMS [emphasis added]," the USFA presciently observed that "for both the fire/EMS services and law enforcement... the line between the two has been relatively distinct: the fire service prevented and extinguished fires, and police agencies prevented crime and arrested offenders" (p. 30). Despite the recommendations of the USFA more than ten years ago, powerful political forces continue to push back against needed innovation.

Influential lobby's such as the International Association of Fire Chiefs (IAFC) and the International Association of Fire Fighters (IAFF) strongly oppose formalized consolidation of police and fire services, and recently joined forces to produce an informational publication to assist fire departments in resisting such efforts (IAFC & IAFF, 2009). In opposing consolidation, the IAFC & IAFF (2009) cite numerous undesirable consequences, including low morale, inadequate training, loss of emphasis on fire safety programming, and overall deterioration of professionalism in the delivery of fire services. In addition, the IAFC places emphasis on the need for teamwork, which it correctly contrasts against the "police emphasis on individual action" (p. 5).

In general, the police and fire cultures value teamwork differently. This thesis has highlighted this important cultural difference and has identified its primary corollary: that of over convergence and all associated problems. The claim that "Individual action on a

fire or EMS scene leads to unsafe acts, inefficiency and chaos, which too often has fatal consequences" is correct, and the only antidote is the development of a team culture—if only situational—within law enforcement (IAFC & IAFF, 2009, p. 5). Whether through formalized consolidation or informal partnerships, tactical integration cannot be achieved unless and until law enforcement resolves this pressing issue.

Nevertheless, while some of the arguments opposing consolidation seem to have merit, over-politicization of the issue threatens to cloud legitimate areas of concern and to block important efforts at innovation. The National Fire Prevention Association, for example, is concerned that in consolidation, "the fire department suffers more than the police department" (IAFC & IAFF, 2009, p. 5). This type of commentary may reveal protectionist motivations which can only serve to obscure the need to innovate the changes necessary to save lives.

Those who have written in support of formalized consolidation point to improved command and control, efficiency of response, and cost savings, with some reference to tactical integration in support of the growing homeland security mission (Mata, 2010; Matarese, Chelst, Fisher-Stewart, & Pearsall, 2007; Stinchcomb & Ordaz, 2007). However, there does not appear to be a simple answer for what is clearly a complex proposition. Writing on opposite sides of the issue, Mata (2010) and the IAFC/IAFF (2009) agree that of numerous agencies that have attempted formal consolidation, a significant number abandoned the concept and returned to traditional organizational structures. While it appears that formal consolidation has been a good fit for *some* communities, it is also clear that the concept is not a panacea. Thus, consolidation alone is unlikely to be either a necessary or sufficient means to *ensure* effective cross-disciplinary tactical integration, but the debate serves to illuminate several important issues central to this thesis.

First, administrative and functional consolidation of police, fire, and medical resources has long been seen as a goal worthy of experimentation, but tactical-integration of these disciplines becomes critical in the context of paramilitary terrorism. Organizational paradigms that exclude fire and medical personnel from hot zone operations are naïve and will not stand up to the test of a Mumbai or Beslan visited upon

the United States. Given the current threat environment, American firefighters and medical personnel can no more expect to "hold short"[26] from such an attack than police first responders can expect to wait outside during an active shooter incident. Second, while it is clear that the future will demand more of our *first* first responders than ever before, efforts to alter existing police-fire-medical tactical paradigms in order to better prepare for paramilitary terrorism are at risk of becoming casualties in a highly politicized war to derail formal consolidation.

With organizations as powerful and respected as the IAFC and IAFF and "many other national organizations" opposed to consolidation and actively encouraging fire unions to resist such efforts (IAFC & IAFF, 2009, pp. 2–5), improved tactical-level integration may be seen as weakening the argument. Such lack of foresight, should it prevail, could prove catastrophic to our front-line first responders.

## B. THE NEED FOR TACTICAL-LEVEL INTEGRATION: THE URGENT LESSONS OF COLUMBINE AND MUMBAI

Interdisciplinary operational challenges were abundant at Columbine, and can be seen as a foreshadowing of what responders will face in the event of a paramilitary attack against targets in the homeland. Numerous problems at Columbine spurred the USFA emphasis on police/fire/EMS tactical integration:

- Police required the use of a fire engine as a shield in order to position themselves for entry into the school; this necessitated the driver of the fire engine to provide a police officer with "an impromptu course in driving the fire apparatus"; medical and other equipment was removed from the truck, and fire crew members were reassigned other duties (USFA, 1999, p. 15). The truck was later abandoned by SWAT after becoming stuck in soft ground near the west doors. (Rosegrant, 2001a, p. 17).

- When SWAT officers reported a potential fire and explosion hazard inside the school and it appeared that "fire suppression resources might be needed," an ad hoc "fire task force was established" that "began formulating plans to combat a fire-related emergency, working closely

[26] This terminology is common among police and firefighters and is used to describe fire/ medical service policies, which preclude operation of personnel in areas of ongoing police tactical operations.

with law enforcement personnel" (USFA, 1999, p. 18). The fire hazard was quickly discounted, and the plan was abandoned before the team could form and deploy.

- A fire rescue unit was "ordered to locate at the east doors of the school at the request of SWAT officers" to await SWAT team extrication of a victim "since it was unsafe for the paramedics to enter the building" (USFA, 1999, p. 20). To be sure, exclusion of fire personnel from areas of ongoing violent confrontation has not been unilaterally imposed by police. Many fire departments today, including Seattle Fire Department, have procedures that prohibit personnel from entering such active areas, and this problem was well documented among fire and medical personnel at Columbine (Seattle FD, 2009; Rosegrant, 2001a, pp. 17–18).

- It was not until four hours after the attack started that "SWAT officers cleared fire department personnel to enter the building and shut off the school's fire alarm and main sprinkler system…Many explosive and incendiary devices remained in place, and hundreds of backpacks that had to be checked for explosives were still inside the building" (USFA, 1999, p. 22; Rosegrant, 2001a, Rosegrant, 2009b). These examples teach us that tactical inefficiencies cost time, and we know that during an active shooter event, the "stopwatch of death" is ticking, and minutes can mean the loss of innocent lives (Fretz, 2007a). In a Mumbai style attack, the kill rate will increase beyond anything yet experienced in the U.S., far exceeding even that achieved at Virginia Tech (Fretz, 2007a, p. 2*);* this means that the price tag in lives of tactical inadequacy can also be expected to increase dramatically. Furthermore, cross-disciplinary tactical inefficiencies can continue to cost lives even after attackers cease to be a direct threat.

First responders outside Columbine High could not have known that Harris and Klebold had likely committed suicide even before the first SWAT teams attempted entry (USFA, 1999; Rosegrant, 2001a, Rosegrant, 2001b). Nevertheless, SWAT teams moved very slowly through the school as they attempted to locate suspects and victims, and to navigate among numerous explosive devices which had been placed throughout the buildings. As previously discussed, it would be hours before SWAT teams could reach the library, where many student victims were located with the shooters, who had been dead since before or shortly after the teams made entry (Rosegrant, 2001a, p. 12). Meanwhile, teacher Dave Sanders, and perhaps others severely injured, waited inside for help.

Sanders was not located by SWAT teams for two and a half hours after he was shot; however, confusion and miscommunication between police and fire-medical personnel created an additional delay in completing his medical evacuation from the school (Rosegrant, 2001b, p. 4). After locating Sanders at 2:42 pm, a SWAT team member was assigned to wait with him pending arrival of paramedics; paramedics, however, waited outside the east entrance, expecting the victim to be carried out by police. The result was another 20–30 minute delay in transporting Sanders to a nearby triage location which had been set up just outside the same east side entrance (Rosegrant, 2001a, pp. 26–27). Sanders died of his injuries.[27]

Operational plans anticipating such challenges should be formulated and exercised prior to, not during our response to critical incidents. When faced with multiple, simultaneous attacks, many cross-discipline operations, including firefighting, downed officer/ citizen rescue, and explosives disposal will need to occur *concurrently* with ongoing law enforcement tactical operations. Paramilitary terrorism demands that we envision—well in advance—teams comprised of police, fire, and medical personnel acting jointly to conduct combat assault, firefighting, explosives ordnance mitigation, and rescue operations. Many of those subjected to the horrors of Columbine carried away an understanding of this fact and took steps, at the local level, to put their newly gained insights into action.

Area police and fire agencies recognized the importance of combined *police-bomb squad* tactical operations; "Had bomb experts deployed with...[the] SWAT team," they would have been able to inform SWAT that most of the 76 devices (Rosegrant, 2001a, p. 30) they would encounter inside the school were safe as long as they were not moved (Rosegrant, 2001b, p. 8). As it was, the presence of so many devices represented an unknown threat which greatly slowed the progress of SWAT entry teams.

[27] Although not much is publicly known about the response of the LAPD fire services during the North Hollywood event, we know there were communication and coordination problems. Describing a situation eerily reminiscent of Columbine, the Los Angeles Times reported that one of the two suspects may have bled to death unnecessarily as a result of miscommunications between police and fire personnel (Berry & Glover, 1998).

Sluggishness of tactical response costs lives (Armellino, 2007; French, 2010; Fretz, 2007a; Giduck, 2005; Rosegrant, 2001a, Rosegrant, 2001b; U.S. Marine Corps, 1996).[28]

The message of the Columbine veterans was the same regarding *police-medical* tactical operations: following Columbine, the Littleton fire department trained 15 paramedics as "special SWAT paramedics who could deploy along with a tactical team" (Rosegrant, 2001b, p. 8). Fire and medical services personnel in Mumbai, faced with a far more dynamic and overwhelming series of events, and while not specifically trained to operate in support of police tactical operations, worked alongside police in the kill zones. The lessons of Mumbai represent a critical chapter to be added to the collective American experiences of Columbine and North Hollywood. Fire service personnel in Mumbai, faced with the prospect of people trapped, injured, and dying inside the Taj Mahal Hotel and at other attack locations, chose to act immediately; we can be sure that firefighters in the U.S. will do the same.

A.V. Sawant, Chief Fire Officer, said, "There were some pretty scary moments while we were fighting fires at the Taj Hotel. On Thursday night when we were in a cage trying to rescue guests, we saw one of the terrorists carrying a gun" (India Express, 2009). Thought not specifically trained to do so, Indian firefighters provided downed-officer rescue and other specialized services while operating in the kill zone (Amrohvi, 2008; India Express, 2008). Mumbai fire and emergency medical personnel risked their lives in the line of fire, moving "about with the work, at times even coming under heavy gunfire and grenade attack" (India Express, 2008).

Raju, an ambulance worker, said that while attempting to rescue injured persons "a grenade exploded right in front of our ambulance, shattering the windshield" (India Express, 2008). Ambulance personnel "ran in and out with stretchers carrying the wounded—each time not knowing if they will make it back themselves to the ambulance" (Mathew, 2010, p. 9). At one point, emergency medical personnel were

[28] By 2004, 14 lawsuits based on negligence, wrongful death, and personal injury had been settled by entities involved in the Columbine response; many of the suits alleged that law enforcement had been too "risk averse" and had failed to "respond aggressively enough" (Rosegrant, 2001b, pp. .3–5).

provided with bullet proof vests and tasked with evacuating injured officers; Mohammad Sheikh, a medic, said, "shots were fired at us and the commandos retaliated. Luckily, we rushed out with the injured officer" (India Express, 2008).

American firefighters and medical personnel will have to do the same; now is the time to acknowledge this eventuality and to prepare for it. Confronted with the threat of paramilitary terrorism, American police, fire, and medical disciplines must begin to truly embrace the concept of "joint operations" long ago envisioned by the USFA (1999, p. 30). Has the message truly come home to the American first responder community as a whole?

## C. BEYOND COLUMBINE: TEN YEARS AFTER

The current construct of *unified command*, an essential component of the National Incident Management System first published in 2004, does not appear to envision actual unification of *line* response functions (NIMS, 2004). As defined within NIMS, 2004, a unified command permits multiple agencies to work together without "affecting individual agency authority, responsibility, or accountability" (p. 12). Indeed, this language appears designed to *protect* individual agency sovereignty, perhaps as a way of encouraging interagency cooperation and participation in NIMS. While I do not argue that the responsibility for innovating response-level tactical integration should reside with the federal government, such considerations should not be ignored by NIMS.

Tallen (2008) observed that of the large body of increasingly sophisticated official doctrine that has appeared since 2001, "They are quite consistent in ignoring modalities of terrorist attack other than WMD, isolated IEDs, and suicide terrorism" (p. 3). Tallen (2008) further observes that both the *National Response Framework* (which includes NIMS) and the *National Response Scenarios* are designed for "consequence management," and give no attention to "resolution of an ongoing terrorist incident" (p. 3). While this thesis does not advocate formalized consolidation of police-fire-medical services, one issue seems crystal clear: A failure to focus on tactical-level integration of police-fire-medical first responders during extreme and novel events will ensure unnecessary loss of life in the future. Sluggishness of tactical response, delays in medical

evacuation and treatment, and degraded ability to address explosives mitigation and firefighting during ongoing tactical operations are vulnerabilities we are aware of and can begin to mitigate. Officials in Mumbai prior to 26–11 had an understanding of the looming threat and failed to act decisively; we too are now on notice.

# V. CONCLUSIONS

Those who claim to lead emergency first responders in the United States have a duty to acknowledge the evolving threat of paramilitary terrorism and to recognize its ramifications for current doctrine affecting training, tactics, and procedures. If indeed "Beslan was little more than a dry run of operations they intend to soon be running on American soil, against American targets, American children" (Giduck, 2005, p. 375) and Mumbai was the coming "urban jihad" (TOSIR, 2009, p. 8), then *we must ensure that we are not merely doing things right, but that we are doing the right things*. This will entail asking some tough questions of ourselves and of our organizations. This thesis has attempted to begin the *process* of asking some of those questions.

Quite clearly, the answer to the primary research question addressed in this analysis, *Will it suffice for American first responders to simply respond in a manner that we "usually respond to a law and order situation" when faced with acts of paramilitary terrorism in the homeland?*, is a resounding "No." Following the 1999 attacks against Columbine High School, it was no longer even acceptable for U.S. law enforcement to respond to *active shooter* incidents as we had "usually" responded to "law and order situations." Radical changes swept away tactical paradigms in existence at the time and represented a watershed event in policing in terms of the collapse of the *isolate-contain-call* model, which had been proven to be inadequate and indefensible under the extreme and novel conditions produced with the emergence of the active shooter phenomenon. The threat of paramilitary terrorism has once again radically altered the environment in which American police officers—indeed, all first responders—must be prepared to operate.

The sudden emergence of the active shooter phenomenon had a rather profound impact, but *only* on a select group of emergency first responders: local police patrol officers. SWAT tactics remained substantially unchanged; there was no overall measurable effect on fire or medical first responder tactics, and the federal government barely noticed the watershed event endured by average police patrol officers everywhere

in the United States. Paramilitary terrorism, particularly if manifested in the form of Mumbai style multiple attacks against highly vulnerable soft targets, will make the tactical transformation among the members of the U.S. first-responder community complete.

American domestic SWAT teams have never experienced and do not train to confront the combat-like tactics which paramilitaries have employed in Mumbai and elsewhere and will employ in the United States if the opportunity is presented. American fire and medical services cannot expect to—indeed, many will refuse to—"hold short" in the shadow of an extended, ongoing multi-assault scenario such as occurred in Mumbai. Our fire and medical counterparts in Mumbai chose to operate in hot zones, and our firefighters and paramedics in the U.S. would no doubt do the same. Thus, *"responding as we usually do,"* will simply not be an option—for any American emergency response discipline—under such conditions. Yes, the time has indeed come—yet again—for American first responders to seriously question existing tactical paradigms. All levels of government and all disciplines charged with emergency response must innovate in the face of a changing threat environment. Given the nature and organization of American domestic emergency response and preparedness activities, this thesis suggests that the federal government does indeed have an important leadership role to fill in this process of change.

Asking American first responders to rely exclusively on NIMS/ICS in its current form is to risk focusing them on the "delusion" that they "can truly be in control of the enemy or the situation" (USMC, 1996, p. 43). This thesis has highlighted the challenges that will be involved in attempting to establish centralized command and control in the first critical minutes or hours following the initiation of extreme and novel crisis events, especially acts paramilitary terrorism. The Marine Corps believes that "We should accept that the proper object of command and control is not to be thoroughly and precisely in control" (USMC, 1996, p. 43). As Undersheriff Dunaway, Jefferson County Sherriff's Department, has said, "I don't think incident command was ever intended to be used for combat operations and that is basically what we were dealing with" (Rosegrant, 2001a, p. 15). If not NIMS, then what?

While command and control, including the version prescribed within NIMS doctrine, is a critically important component of crisis response, NIMS does not currently answer the question: How should first responders—law enforcement as well as fire and medical services—plan to respond when facing multiple Fidayeen (high-risk commandos) attacking multiple locations with unimaginable determination and ferocity? If NIMS/ICS is unable to define or manage the nature and parameters of the initial law enforcement response to an extreme and novel event, or to stimulate the type of preparation and training that law enforcement (indeed, that *all* first responders) will require in such cases, then it follows that more than NIMS—or a reengineered NIMS—is needed. This is not to suggest that local first responders are victimized by a bureaucratic and unresponsive national government. Local law enforcement, for example, must first clean its own house, so to speak, before the federal government (or, for that matter, other local emergency response disciplines) can be seriously expected to involve themselves in building a new, highly integrated tactical response doctrine.

Before American law enforcement can begin to seriously confront issues such as *over-reliance on specialized tactical teams* and *cross-disciplinary tactical integration of police-fire-medical services*, the problem of over-convergence must be resolved. In the case of a well-planned paramilitary terrorist attack, there are likely to be others involved who are not directly associated with the primary attack location, including those conducting surveillance, planning to execute secondary attacks against first responders, or preparing to execute additional simultaneous attacks on other targets (Giduck, 2005). According to Giduck (2005), "In Israel this is a foregone conclusion. As soon as tactical units receive word of a terrorist assault, a number of the responding teams do not go anywhere near the site of the attack at all" (p. 341). *Precisely this mindset must become part of a new American doctrinal mantra.* Unmanaged law enforcement assets over-converging *en masse* at major incident locations defy and impede the potential benefits to be gained through command and control mechanisms such as NIMS and create unsafe conditions into which fire and medical personnel correctly refuse to be drawn.

Before law enforcement may legitimately demand support from the federal government to build a more flexible, adaptable NIMS—one that is particularly well-suited to its own needs during the initial response stages of extreme and novel events—law enforcement must first learn to effectively manage its own assets. Still, a nationally led effort is needed in the Unites States to seriously explore the readiness and capabilities of U.S. police forces, fire services, and emergency medical personnel to respond and perform well during the very early stages of extreme and novel crises, such as multiple, simultaneous acts of paramilitary terrorism. Together we must design the training and tactics needed to supplement NIMS, so that our first responders, operating under extreme conditions in the absence of effective communications, may act *jointly* and effectively to respond to any type of threat, including that of paramilitary terrorism. This thesis suggests that the federal government should expand the *National Response Framework* to include training aimed at improving response capabilities to multiple, simultaneous, *ongoing* terrorist incidents.

This will mean supplementing NIMS to include training scenarios that go beyond consequence management to support innovative response-focused, grass-roots, immediate rapid deployment programs, such as MACTAC, and acknowledging the limitations of current tactical doctrine, which may not properly prepare domestic SWAT teams for the combat-like eventuality of paramilitary terrorism. We must continue to confront the issue of exclusive or over reliance on specialized teams, which may create unacceptable delays in response, and which, more importantly, may delay or preclude the provision of proper training to our *first* first responders. These will be the police officers, firefighters, and medical personnel who will be required to act safely, effectively, and *immediately* if they are to save lives, including their own.

Finally, as programs like MACTAC continue to evolve, fire and medical responders will need to be included. As has been demonstrated, non-law enforcement first responders will also be faced with significant paradigm shifts; ideas of combat firefighting and rescue may seem foreign to many, and are sure to draw resistance from political lobbies, including collective bargaining and other national associations. The reality, however, is that firefighters, medical personnel, and police officers, faced with a

Mumbai style paramilitary terrorist attack, will have no alternative but to work together in the kill zone. Columbine, an event hardly comparable to 26–11, taught us that such preparations cannot take place in the midst of ongoing tactical operations but require advance planning and training. Given what we now know about potential paramilitary terrorist operations, our new mandate demands we overcome egocentric, legal, and political barriers and begin the necessary planning sooner rather than later.

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# APPENDIX A. MUMBAI REVISITED: PERSPECTIVES FROM GROUND ZERO

There is a temptation—perhaps in part because it brings us relief or reassurance—to allow our thinking about Mumbai to be negatively influenced by her status as a capital city of the third world. This is a type of cognitive bias that makes it easier for us to ignore her problems, the story of her people and their experiences, and the important lessons she stands ready and willing to share. In limiting our thinking this way, we relegate the city, her home state of Maharashtra, and her people—including many thousands of police officers, firefighters, and others—to a kind of political and socio-economic nether land.

Before travelling to Mumbai in December 2009, such biases colored my own thinking, leaving me tempted to pretend that my own society and culture were somehow immune to events such as those of 26–11. There can be no surer cure for such cognitive errors than to stand with the people of Mumbai—the leaders and officers of the Mumbai police, and others—atop 26–11's own ground zero. In order to fully appreciate and understand the significance of what occurred in Mumbai, it is first necessary to see and understand the story of her people, culture, and institutions. We are far more alike than we are different.

As may be apparent from the literature review, much of what is suggested in this thesis builds upon the lessons of Mumbai and attempts to apply them to American public safety systems and tactics. This thesis suggests that the story of Mumbai and her people has something to teach us. Thus, because this thesis has presented ideas that, partly on this basis, call into question various aspects of collective American emergency response dogma, the reader deserves a brief introduction to the stories of some of the people of Mumbai.

Men like Raj Khilnani, Additional Director General of Police (Addl.DG), Railways; K.P. Raghuvanshi, Addl.DG, Anti-terrorism; Himanshu Roy, Joint Commissioner (Jt.CP), Law and Order, Mumbai Police, and many others personify an unmistakably universal law enforcement spirit. It was this spirit that compelled their

personal friends, close associates, and fellow Mumbai police officers to resist—in some cases to the death—against the attackers of 26–11. For these men and many others like them, the attacks of 26–11 are as much about personal tragedy as they are about the academic complexities of international terrorism. This chapter is dedicated to telling one small part of their story.

## A. INDIAN POLICE SERVICE AND MUMBAI POLICE: ORGANIZATION, RANK STRUCTURE, BACKGROUND

The central government of India recruits, selects, and trains all candidates for positions within the Indian Police Service (IPS), which is a national entity administered through the Ministry of Home Affairs (Commonwealth Human Rights Initiative, n.d., pp. 36, 40–41). All senior officer positions in policing throughout India are filled by IPS officers, which collectively form a kind of elite officer corp. After completion of foundational training in conjunction with other "all India"[29] services personnel, candidates are assigned to a 44-week basic IPS officer school at the National Police Academy in Hyderabad (Commonwealth Human Rights Initiative, n.d., p. 36). Upon successful completion of training, IPS officers are allotted to a state cadre, such as Maharashtra, and are assigned two years probationary status as assistant superintendents of police (Commonwealth Human Rights Initiative, n.d., p. 41). Probationary officers attend additional training at state police academies and other schools as may be required by the various states to which they are assigned.

IPS officers thus form an elite officer corps, which can be compared to the officer corps of the United States military. Though assigned and administered within the organizational and command structure of a given state, IPS officers can be removed from service only by action of the central government. The chief IPS officer for a state holds the rank of *Director General of Police*. Through a "commisionerate system," the IPS provides senior officers for service in metropolitan areas such as Mumbai (Commonwealth Human Rights Initiative, n.d., p. 14). In Mumbai, the commissioner of

[29] There are two "all India" services provided by the central government: the Indian Police Service (IPS), and the Indian Administrative Services (IAS), formerly known as the Indian Civil Service (Commonwealth Human Rights Initiative, n.d., pp. 40–41).

police (chief of police) holds the rank of *Additional Director General (Addl.DG)* in the IPS, reporting to the state Director General of police. Other major law enforcement entities within a state, such as the Railway Police, may also be led by IPS officers of the rank of Addl.DG; this is true in Mumbai, where the Railway Police chief, also an Addl.DG, is headquartered in the Chhatrapati Shivaji Terminal (CST).

Dual factors determine the rank and title to which IPS officers are referred: rank within the IPS, and the nature of their assignment (Commonwealth Human Rights Initiative, n.d.; Kamte, 2009; Pradhan & Balachandran, 2009). For example, an IPS Addl.DG assigned through the commissionerate system may be the Police Commissioner, such as in Mumbai. At the state level, the rank immediately subordinate to Addl.DG is Inspector General (IG), referred to at the level of the commissionerate as Joint Commissioner of police (Jt.CP). Subordinate to the Jt.CP is the Additional Commissioner of Police (Addl.CP), known at the state level as Deputy Inspector General (DIG). Thus, the IPS includes ranks ranging from assistant superintendent through director general, but comprises less than one percent of the entire police forces of India (Commonwealth Human Rights Initiative, n.d., p. 29). The enlisted equivalent in Indian policing enters at the rank of police constable and may promote to the maximum rank of inspector; these ranks comprise more than 99 percent of all police personnel in India, and are recruited, trained, and assigned by the individual states (Commonwealth Human Rights Initiative, n.d., pp. 30–33).

There are approximately “40,000 odd policemen” in Mumbai City; “nearly 16,000/17,000 are for special duties like security, traffic, special branches, etc. leaving only 24,000 men for normal police station duties” (Pradhan & Balachandran, 2009, p. 61). Covering two shifts and accounting for sick leave, vacation, etc., there are approximately 10,000 police officers assigned to stations in Mumbai at any given time; these officers are distributed among 20 stations citywide (Pradhan & Balachandran, 2009, p. 61). Using the 24,000 officer figure for approximately 19,000,000 people living in the greater Mumbai area (City Mayors, 2007; Morris, 2007; Population Reference Bureau,

2007),[30] Mumbai fields few officers per 1000 residents compared to modern law enforcement agencies in the United States.[31] Officers assigned to such stations, many equipped with only cane or bamboo sticks, were the first to respond to initial reports of gunfire and explosions on 26–11. Despite reports to the contrary,[32] many Mumbai police officers of all ranks did in-fact engage the terrorists directly, and in doing so, prevented an even higher death toll.

## B. TO THE LAST BULLET: THE STORY OF ADDITIONAL COMMISSIONER ASHOK KAMTE AND OTHER HEROES OF 26–11

### 1. Police Action at Chhatrapati Shivaji Terminal and Cama Hospital

Mohammad Ajmal Amir Kasab, 22, son of Mohammad Amir Kasab, Faridkot, District Okara, Province of Punjab, Pakistan, and his teammate, mission leader Ismail Khan, 25, of Northwest Frontier Province (NWFP), Pakistan, murdered Hemant Karkare, Joint Commissioner of Police (Jt.CP), Anti-terrorism, Ashok Kamte, Additional Commissioner of Police (Addl.CP), Mumbai East Region, and 12 other policemen in the Chhatrapati Shivaji Terminal (CST) and Cama-Chowpatty sector on 26–11 (Government

[30] Mumbai is consistently ranked as one of the largest cities in the world, particularly when using figures for population density; population figures are available for the city itself, as well as for the Greater Mumbai urban agglomeration (UA), and range from 15-20,000,000 depending on the source and geographical area represented. I have used the UA figure provided by the Population Reference Bureau, since the Mumbai police are responsible for the greater Mumbai region.

[31] The Las Vegas Metro Police Department currently enjoys a ratio of 1.94 officers per 1000 and aspires to a goal of 2.0 officers per 1000, which is considered to be consistent with other large agencies in the U.S; for a Bureau of Justice Statistics (BJA) brief indicating that for law enforcement agencies in the U.S. serving more than 250,000 population, the average ratio is at or above 2.0[citation]. For more information see:
[http://docs.google.com/viewer?a=v&q=cache:UnUDOL7FPugJ:www.theiacp.org/LinkClick.aspx%3Ffileticket%3DLF7xdWl1tPk%253D%26tabid%3D87+police+officer+ratio&hl=en&gl=us&pid=bl&srcid=ADGEESiHp6wKldHoQkMJiRdYcQA4jzxM1-7H91jzH6PDJUoOAU5kff_7iUd8Q1OBTQN6iCPPpX0AgBjtmSdYzgdWp_gU8zasUNFhQWs_LUoEyavXPGckIfq01LOVfeZidLZDqj8-CsJD&sig=AHIEtbQpROHcHMe0OFJyKyYE_mCT1EWlEw.

[32] NYPD Commissioner Ray Kelly has said that the attacks of 26–11 were successful in part because "the local police did not engage [emphasis added]" the attackers (SCHSGA, 2009a; Kelly section, p. 4). Media reports depicting confusion among first responders and reporting significant delays in countering the attack increased the perception that the Mumbai police did little to intervene against the terrorists. This is the story of systemic and programmatic failure; it is not the story of numerous individual police officers, fire fighters, medical personnel, and others who bravely confronted and battled the attackers, and in too many cases, lost their lives in the process. 17 Mumbai and Railway police officers were killed and 35 injured in the immediate fighting, which followed the initiation of the attacks (Pradhan & Balachandran, 2009, Appendix 2).

of India, 2009, pp. 2–3; Pradhan & Balachandran,2009, p. 41). The number of police officers killed by Kasab and Khan in this sector represents an astounding 82 percent of all officers killed in Mumbai on 26–11.

Kasab and Khan killed many more police officers at CST and vicinity, including the Cama & Albliss Hospital, than would die at all other attack locations combined (LVMPD, 2010; Pradhan & Balachandran, 2009, p. 41; NYPD, 2008). The high death toll of police officers in this sector was due in part to the proximity of the attacks to the CST police station, which the terrorists reached and attacked at 2202 hours on 26–11 (Pradhan & Balachandran, 2009, p. 41). At CST, Police Inspector Shashank Shinde and Police Constables Shri Pandharkar and Armadas Pawar fought back using .303 rifles, and were quickly killed "while retaliating" in the face of overwhelming firepower (Pradhan & Balachandran, 2009, pp. 41-42). The stout resistance of the CST police caused the terrorists to flee across an elevated pedestrian walkway that terminated into a lane, or alleyway, leading directly to the rear of Cama Hospital (Duraphe, 2009, p. 13; Pradhan & Balachandran, 2009, p. 42).

Kasab and Khan had become "confused and lost, and after crossing back and forth several times over parked trains and platforms, found the walk bridge and left the station" (R. Khilnani, personal communication, December 2009)[33]. Injuring two more constables as they fled, Kasab and Khan made their way several hundred meters along the alleyway near the *Times of India* newspaper and entered the Cama Hospital compound via the rear wall. After killing two watchmen, they entered the hospital itself (Pradhan & Balachandran, 2009, p. 42). Once inside, the terrorists climbed to upper floors, just as others in their party would do at the Taj, Trident-Oberoi, and Nariman House (Pradhan & Balachandran, 2009, p. 43).

Meanwhile, Sadanand Date, Addl.CP, Mumbai Central Region, arrived at the front entrance to the hospital and, with a party of six police officers, made entry and pursued the attackers to the sixth floor (Pradhan & Balachandran, 2009, p. 43). Moments later Date was severely injured and one of his officers killed in a vicious exchange of

[33] The author visited ADG Khilnani at Chhatrapati Station during the week of December 7, 2009.

gunfire with Kasab and Khan. Date, using his revolver and a carbine from one of his injured officers, held his position, permitting several in his party to retreat (Pradhan & Balachandran, 2009, p. 43). One of Date's officers, Sachin Tilekar, left the building and made contact with other officers gathering outside (Pradhan & Balachandran, 2009, p. 43). The subsequent attempt to rescue the wounded Date would lead to more police fatalities and would quickly become a focus for controversy centering on the exercise of police leadership and command and control during the attacks (Kamte, 2009; Pradhan & Balachandran, 2009).

Outside the hospital, Tilekar encountered numerous police officers, including two high-ranking and well-known figures within the Mumbai police, Jt.CP Hemant Karkare and Addl.CP Ashok Kamte, and informed them of the dire circumstances facing their injured colleague (Pradhan & Balachandran, 2009, p. 43). Karkare, highly respected, and the ranking IPS officer outside Cama that night, worked with Kamte to quickly devise a rescue plan; they selected Inspector Vijay Salaskar, veteran guerilla fighter, and three police constables, obtained a vehicle, and prepared to drive toward the Cama front entrance (Kamte, 2009; Pradhan & Balachandran, 2009). Collectively possessing years of specialized training and experience, these three officers represented a formidable force. Jt.CP Himanshu Roy, when later asked about Kamte, said with as much reverence as sadness, "Yes, I knew him" (H. Roy, Additional Joint Commissioner, Indian Police Service, personal communication, December 8, 2009).

In fact Roy and Kamte had enjoyed a friendship lasting many years (Kamte, 2009). The two met as young men while attending St. Xavier's College in Mumbai, at a time and place where Roy says, "no two persons could have been more dissimilar" (Kamte, 2009, p. 194). Roy, a science student, described himself as more reserved in those days, while Kamte, he says, a liberal arts major, was outgoing and athletic; at that point in their lives, their relationship was nothing more than a "casual association" (Kamte, 2009, p. 194).

"Destiny," Roy says, brought them together again at the National Police Academy (NPA), Hyderabad, after which both were assigned to the Maharashtra state cadre (Kamte, 2009, p. 195). At the academy, they shared a room, which Roy says was "full of

Ashok, always;" besides the sports paraphernalia always strewn about the room, "weapons were his other love and he had a number of books on them" (Kamte, 2009, p. 195). By the time they had reached "middle management of the IPS, we were brothers" (Kamte, 2009, p. 194). Kamte, it seems, was somewhat larger than life.

Kamte came from a family with an impressive history of police and military service. Kamte's great grandfather had served with the British police in India from 1895–1923, and his paternal grandfather, Narayanrao Marutirao (N.M.) Kamte, had been the first post-independence Inspector General of Police for Bombay State (Kamte, 2009). N.M. Kamte started his career with the British Police Force in 1923, at age 23; during his career, he held significant positions of rank and responsibility and studied abroad in the U.S. and Britain (Kamte, 2009, pp. 137–138). Kamte's father rose to the rank of Lt.Col. in the Indian Army, serving as an aid to the Army Chief of Staff and later as the Adjutant of the Indian Military Academy (Kamte, 2009, p. 157). Kamte was a natural athlete and seemed destined to carry on the family tradition of government service.

By the age of 12, Kamte was excelling in sports; from best junior cricketer, 1976–77, to state shot putt champion, national power lifting champion, and unarmed combat champion at the National Police Academy, 1989–90—he was a natural (Kamte, 2009, pp. 177; 179; 185). Kamte's love of sports was equaled by his love of firearms, and his athletic ability and love of competition naturally included shooting (Kamte, 2009). Kamte was given his first gun by his father at age six; by the time he was serving in the IPS, he was driven by a desire to see, touch, and master every weapon obtained by the police service (Kamte, 2009, p. 198).

The IPS recognized Kamte's passion and expertise, and in 2005 he was appointed Deputy Inspector General, Special Security Training Center, city of Pune, near Mumbai (Kamte, 2009, p. 201). Despite his leadership position, he personally participated in training with his men, learning every new skill he could from experts who taught at the center (Kamte, 2009, pp. 201–202). Dr. Deepak Rao, a guest trainer, recalled that Kamte would "train side by side with the officers, standing long hours in the scorching sun and shooting round after round" (Kamte, 2009, p. 202). His reputation for expertise with firearms always featured in his career; one week before 26–11 he had been tasked with

coordinating with Hong Kong police to train Mumbai officers in the use of "sophisticated weapons" (Kamte, 2009, p. 202). On November 26, 2008, in a deserted lane leading to the Cama hospital, Kamte would need all of his skills.

Kamte maintained a high-level of proficiency with a variety of weapons, and had an AK47 close by at all times, including the night of 26–11 (Kamte, 2009, p. 12). As they prepared to drive to the front of Cama Hospital, Karkare and his team could not have known that Kasab and Khan had already descended the stairs and exited the hospital via the front doors. The six police officers piled into a Toyota Qualis, with Karkare, Kamte, and Salaskar in the front seat, the three constables in the rear, and drove along Rang Bhavan Lane toward the hospital front entrance (Kamte, 2009). They did not know it, but the lane had already been the scene of significant terrorist action. At approximately 1145 hours, Police Sub-Inspector Bapusaheb Dhurgude had confronted Kasab and Khan near the hospital front entrance, and "they shot him dead" (Kamte, 2009, p. 43; Pradhan & Balachandran, 2009). Maruti Phad witnessed the murder of Dhurgude and was nearly killed himself when the terrorists open fire on his vehicle, blowing off one of his fingers (Kamte, 2009, p. 43). Karkare and his team were unwittingly driving straight into the immediate aftermath of this bloody scene.

Kasab and Khan evidently saw the vehicle approaching and hid in some bushes; according to statements later obtained from Constable Arun Jadhav (the only surviving officer), as well as from Kasab himself, one of the officers saw something suspicious and the Qualis screeched to a halt (Kamte, 2009; Mid DAY Infomedia, 2010; Pradhan & Balachandran, 2009, p. 44). A student hiding nearby described Kamte getting out of the front seat, "taking position and firing towards the bushes;" one suspect, later determined to be Kasab, was then seen "walking in a wayward manner…writhing in pain as he kept shaking one of his hands" (Kamte, 2009, p. 50). Kasab reportedly said later, "One bullet hit my hand and my AK47 dropped down. I bent to pick it up when a second bullet hit me on the same hand… Ismail opened fire at the officers" until "firing from their side

stopped" (Hansa, R., 2010, p. 68; Mid DAY Infomedia, 2010).[34] Kasab and Khan then approached the vehicle and threw out the bodies of the dead and dying police officers in the front seat (Kamte, 2009, pp. 31–33).

As the two were preparing to hijack the Qualis, a cell phone belonging to a dead constable in the backseat began ringing; Kasab and Khan fired again into the rear of the vehicle; incredibly, Constable Arun Jadhav, still sitting with two other constables killed in the ambush, also survived this secondary assault (Kamte, 2009, pp 31–33). The two men drove away with Jadhav still alive in the vehicle, and with Kasab "shaking his hand all the time, writhing in pain" (Kamte, 2009, p. 33). Jadhav, who lay injured and silent as Kasab and Khan commandeered the Qualis, observed as Kasab and Khan drove past the Metro Theatre complex, opening fire on people gathered outside, killing Police Constable Arun Chitte (Pradhan & Balachandran, 2009, p. 44). Following the shooting at the Metro Theatre, the two abandoned the Qualis, hijacked a second vehicle, and fled toward Nariman Point (Kamte, 2009, p. 33; Pradhan & Balachandran, 2009, p. 44). Jadav used his radio to relay suspect and vehicle information to the control room, and police set-up a roadblock near Girgaum Chowpatty (Duraphe, 2009, p. 14; Pradhan & Balachandran, 2009, p. 44).

Khan and Kasab drove directly into the police roadblock at Girgaum Chowpatty (Government of India, 2009; Pradhan & Balachandran, 2009). In an exchange of gunfire, Khan was killed by police, while Assistant Sub-Inspector Tukaram Ombale was killed as he attempted to overpower the injured Kasab; Ombale's men, however, finished the job, and in the words of the widow Vinita Kamte (2009), the "bravery and courage showed by some officers…gave to the country the first fidayeen ever to be caught alive" (Duraphe, 2009, p. 14; Government of India, 2009; Kamte, 2009, p. xiii; Pradhan & Balachandran, 2009). With the death of Khan and the capture of Kasab, the attacks upon CST and Cama Hospital came to an end; however, the attacks on the Taj, Oberoi, and Nariman House

[34] Kasab first confessed to his role in the attacks in December 2008, providing many details, including those attributed here. Kasab later recanted his confession, however, many of the details, particularly those pertaining to what occurred in front of Cama Hospital, are well-supported in statements provided by other eyewitnesses, including but not limited to the several cited in this thesis. Kasab later offered a second confession and was thereafter convicted in 2010 for his role in 26–11.

would drag on, finally ending after nearly 60 hours when commandos of the National Security Guards (NSG) killed the last terrorists inside the Taj Hotel (Pradhan & Balachandran, 2009, p. 39).

### 2. Police Action at Café Leopold and Taj Hotel

The first report to reach the Mumbai police control room on November 26, logged at 2150 hours, was of gunfire at the Café Leopold. Using data from various sources, it appears that Hafiz Arshad and "Naser" entered Café Leopold between 2130 and 2140 hours, threw a grenade and opened fire on patrons (Government of India, 2009, p. 6; Pradhan & Balachandran, 2009, p. 36). Within seconds, 10 people were killed and 20 injured. Officers in nearby police unit, "Tourist 1 Mobile," arrived on scene almost immediately and came under fire in the alleyway as Arshad and Naser exited Leopold enroute to Taj; Tourist 1 reported by radio that "police driver was hit by bullet" (Pradhan & Balachandran, 2009, p. 31). Numerous police officers from Colaba Station armed with "2 SLR[35] and gas guns" had rushed to Leopold; however, by the time most of them arrived, the two attackers were gone, and may have already arrived at Taj (Pradhan & Balachandran, 2009, p. 36). As they fled Leopold, Arshad and Naser had deposited an IED composed of eight kg of RDX in their wake to cause further confusion and to delay pursuing officers (Pradhan & Balachandran, 2009, p. 36). Police Sub-Inspector Kakade covered the device with sandbags and called the bomb squad, which later safely diffused the IED (Pradhan & Balachandran, 2009, p. 37).

Within a few minutes of the first shots at the Leopold, shots were being reported at the Taj. The terrorists known as "Shoaib" and "Javed" had entered the Taj through the main entrance at about 2138 hours (approximately the same time Arshad and Naser had attacked Leopold), and killed an estimated 20 people within "the first few minutes" of launching their assault (Government of India, 2009, p. 7). Taj Hotel security staff later explained that a mob of people had "attempted to rush into the hotel in panic when they learnt of the Leopold firing;" in the resulting confusion, Shoaib and Javed had most likely

[35] SLR means self-loading rifle, which can be used interchangeably with the term semi-automatic rifle. These were likely 7.62mm variants on the AK47.

simply blended in with the crowds and were able to enter the Taj unmolested (Pradhan & Balachandran, 2009, p. 39). After attacking Café Leopold, Arshad and Naser quickly rendezvoused with Shoaib and Javed at the Taj, entering through a side entrance with access to numerous high-end retail shops; together the four made their way to the historic Heritage Taj tower, killing anyone they happened to encounter (Government of India, 2009, p. 7; Pradhan & Balachandran, 2009, p. 37).

By 2155 hours, four to five police officers led by Deputy Commissioner of Police (DCP) Vishwas Patil, armed with only "one SLR, one .303" and an unspecified number of duty handguns entered the Taj in pursuit of the attackers, whose numbers had increased to four as a result of two attack teams linking up at the hotel (Pradhan & Balachandran, 2009, pp.31–32, 36). The attackers had already killed numerous people in the coffee shop, around the swimming pool, and in front of the Heritage Tower elevators and attained the advantage of high ground by climbing the "royal staircase" of Taj Heritage (old) Tower, from which they could engage the approaching officers (Pradhan & Balachandran, 2009, p. 37). One of the suspects appeared to have been injured by police gunfire, while one officer, Police Constable Rahul Shinde, was killed by AK47 gunfire (Pradhan & Balachandran, 2009, p. 37). The terrorists continued to fire and drop grenades down on the officers, who, despite numerous bullet, shrapnel, and burn-related injuries and significant tactical disadvantages, continued to engage and play "hide-and-seek" with the attackers for some four and one-half hours (Pradhan & Balachandran, 2009, p.37). Marine commandos arrived at 0214 hours, November 27 (Pradhan & Balachandran, 2009, p. 37).

### 3. Police Action at Trident-Oberoi

Similar events were unfolding at the Trident-Oberoi Hotel. At approximately 2155 hours, Police Inspector Shri Bhagwat Kacharu Bansode of Marine Drive Police Station entered the Trident in response to reports of explosions and gunfire; Bansode was armed with only a revolver (Pradhan & Balachandran, 2009, p. 39). By this time, all of the killing on the first floors of the two towers had already occurred; bodies were laying in and around the lobby, several restaurants, and the systems room; IEDs left in the valet

area outside Trident and near the Oberoi lobby would explode at 2215 and 2230 hours, respectively (Pradhan & Balachandran, 2009, pp. 39–40). Other officers arrived, and together they made their way across a lengthy passageway leading to the Oberoi, encountering more dead bodies along the way.[36] Abdur Rehman and "Fahadulla" had acquired the high ground by ascending the Oberoi atrium, which was open to and overlooked the expansive lobby area below.

From their vantage point, the attackers continued to fire and drop grenades on officers, who were unable to proceed further; the HLEC reported that even later arriving Naval Commandos were unable to proceed beyond this point for the same reasons (Pradhan & Balachandran, 2009, p. 40). Police officers outside led by Addl.CP Parambir Singh, ATS, located vantage points from which they could target the attackers with sniper fire; together officers inside and outside Oberoi thus kept Fahadulla and Rehman pinned down while other police officers and firefighters continued to return fire and evacuate injured until the arrival of Naval Commandos at 0200 hours, November 27 (Pradhan & Balachandran, 2009, pp. 40–41).

Similar events transpired simultaneously at Nariman House, where Babar Imran and "Nazir" planted two eight to 10kg IEDs of RDX, one at a nearby gas station, the other inside Nariman House near a staircase (Duraphe, 2009). Imran and Nazir executed or took hostage people they encountered and made their way to the high ground, from which they would stubbornly resist responding police officers.

These were the actions of some of Mumbai's *first* first responders, prompting the HLEC to conclude that "in general the Mumbai Police initially responded to multi-targeted attacks efficiently, but in a manner that they usually respond to a law and order situation" (Pradhan & Balachandran, 2009, p. 10). American police officers responding to a similar scenario will face similar challenges, and, if they survive, will have similar stories to tell. We are indeed more alike than we are different.

[36] The Trident and Oberoi are separate towers, part of the same hotel complex; they are connected by a long narrow hallway.

# APPENDIX B. 26–11 ATTACK TIMELINE[37]

| | |
|---|---|
| **2120–40** | **Ajmal Kasab** and **Ismail Khan** enter Chhatrapati Shivaji (CST); they make their way through the crowds and enter a public restroom |
| **2130–40** | **Hafiz Arshad** and "**Naser**" attack Café Leopold |
| **2138** | "**Javed"** and "**Shoaib**" blend in with panicked crowds rushing into Taj for safety and enter Taj Hotel main entrance |
| **2144** | **Kasab** and **Khan** throw grenades and open fire inside CST |
| **2148** | Control room notified of "foreigners" injured at Café Leopold |
| **2150** | Mumbai police unit "Tourist 1 Mobile" reporting shots fired at officers outside Leopold; at least one officer injured |
| **2150–54** | **Arshad** and **Naser** open fire in alley and drop an IED made of 8kg RDX in a nearby lane; they continue to Taj and enter a side entrance with access to high-end retail shops; within minutes they link up with **Javed** and **Shoaib**, and both teams enter the Heritage Tower |
| **2151** | Mumbai Police Inspector Bansode is notified of shots fired at Trident-Oberoi and arrives within minutes |
| **2154** | Report of shots fired at Taj Hotel |
| **2155** | DCP Nangre leads 4–5 police officers into Taj in pursuit of attackers |
| | Inspector Bansode enters Trident and encounters numerous dead and injured in and around multiple restaurants, the lobby, and systems room; he and his entry team pursue **Fahadulla** and **Abdur Rehman** in the Oberoi atrium |
| **2156** | IED explodes in taxi at Wadi Bunder |
| | Marine Drive Police and Addl.CP Police, South Region, report shots fired at Trident Oberoi |
| **2200** | Addl.CP, Protection and Security, reports loud explosions coming from Trident-Oberoi |
| | ACP Bagwan reports loud explosion in Colaba Wadi, near Nariman House |
| **2202** | **Kasab** and **Khan** attacking area of CST police station |
| | Main Control reporting unknown trouble near Nariman House |
| **2215** | IED explodes in Trident-Oberoi valet area |

[37] Timeline constructed using various sources including Pradhan & Balachandran, 2009; Government of India, 2009, Mumbai Terror Attacks Dossier of Evidence: Section 1; Kamte, 2009; Duraphe, 2009. Source documents frequently disagree about times; where the disagreement is more than several minutes, available data have been used to create a time frame within which the event most likely occurred.

**2217–25** Nariman House: Two IED's of 8-10kg are planted, one at a gas station near Nariman House, the other inside the building near the bottom of the staircase; **Babar Imran** and **"Nazir**" begin firing outside Nariman

**2230** IED explodes near Trident-Oberoi lobby area

**2240** QRT and ATS teams arrive at Oberoi, but are unable to advance under heavy fire from **Fahadulla** and **Abdur Rehman** occupying upper atrium floors

**2253** IED explodes in taxi at Vile Parle

**2324** Addl.CP Kamte informs Main Control of firing and 3-4 grenade blasts occurring within 5 minutes inside Cama Hospital

**2328** Addl.CP Kamte notifies Main Control that ATS QRT are on scene at Cama; requests additional personnel to front of hospital

**2333–48** Jt.CP Karkare, Addl.CP Kamte, Inspector Salaskar, Police Constable Arun Jadhav, and two other constables ambushed near front of Cama hospital; Kamte returns fire, striking **Kasab** in hand; only Jadhav survives

**0025** Constable Jadhav begins informing Main Control of the ambush and activities of **Kasab** and **Ismail**, fleeing in hijacked vehicles

**0046** Taj Hotel**:** DCP Zone 1 repeatedly asking for reinforcements; police inside Taj are firing on attackers in different positions, but terrorists are throwing grenades; "we are losing lives"[38]

**November 27, 2008**

**0200** Naval commandos arrive at Trident-Oberoi

**0214** Marine commandos arrive at Taj Hotel

**0730** NSG arrives at Taj Hotel

**November 29, 2008**

**0800** Last of attackers are killed at Taj Hotel by commandos of the NSG

[38] Pradhan & Balachandran, 2009, p. 37.

# APPENDIX C. KNOWN TERRORIST ATTACKERS OF 26–11 (GOVERNMENT OF INDIA, 2009)[39]

| Name | Age | Origin | Target/Comments |
|---|---|---|---|
| **Arshad, Hafiz** | 23 | Multan, Pakistan | **Leopold; Taj Hotel** |
| **Fahadulla** | 23 | Okara, Pakistan | **Trident-Oberoi** |
| **Imran, Babar** | 25 | Multan, Pakistan | **Nariman House** |
| **Javed** | 22 | Okara, Pakistan | **Taj Hotel** |
| **Kasab, Ajmal** | 22 | Punjab, Pakistan | **CST**; **Cama Hosp.; *Captured alive*** |
| **Khan, Ismail** | 25 | NWFP, Pakistan | **CST; Cama Hosp; *Team leader*** |
| **Naser** | 23 | Faisalabad, Pakistan | **Leopold; Taj Hotel** |
| **Nazir** | 28 | Faisalabad, Pakistan | **Nariman House** |
| **Rehman, Abdur** | 21 | Arifwala, Pakistan | **Trident-Oberoi** |
| **Shoaib** | 21 | Sialkoat, Pakistan | **Taj Hotel** |

[39] Individuals shown with only a single name had not been fully identified as of the time the dossier was prepared.

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## APPENDIX D. MUMBAI & RAILWAY POLICE OFFICERS KILLED ON 26–11 (PRADHAN & BALACHANDRAN, 2009)[40]

| Name | Rank | Assignment | Location Killed |
|---|---|---|---|
| **Bhosale, Balasaheb** | Asst. Sub Inspector | Mumbai Police | Cama Hospital |
| **Chaudhari, Murlidhar** | Unk | Railway Police | CST |
| **Chitte, Arun** | Police Constable | Traffic | Metro Junction |
| **Dhurgude, Bapusaheb** | Sub-Inspector | Mumbai Police | Xavier College/ Cama Hospital |
| **Jadav, Mukesh** | Home Guard | CST | CST |
| **Kamte, Ashok** | Addl.CP | Mumbai Police East Region | Cama Hospital |
| **Karkare, Hemant** | Jt.CP | Antiterrorism Squad | Cama Hospital |
| **Khandekar, Madhukar** | Police Constable | Mumbai police | Cama Hospital |
| **More, Prakash** | Sub-Inspector | Mumbai Police | Cama |
| **Not Listed** | | | |
| **Ombale, Tukaram** | Asst. Superintendent | Mumbai Police | Girgaum Chowpatty |
| **Patil, Jaywant** | Police Constable | Mumbai police | Cama Hospital |
| **Patil, Yogesh** | Police Constable | Mumbai Police | Cama Hospital |
| **Pawar, Ambadas** | Police Constable | Protection, Mumbai Police | CST |
| **Salaskar, Vijay** | Inspector | Crime Branch, Mumbai Police | Cama Hospital |
| **Shinde, Rahul** | Police Constable | State Reserve Police Force | Taj Hotel |
| **Shinde, Shashank** | Inspector | Railway Police | CST |

[40] 17 Mumbai and railway police officers were killed; however, the report of the HLEC appears to erroneously list Pawar twice.

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# LIST OF REFERENCES


Amrohvi, I. A. (December 2, 2008). Mumbai attack: Remembering the heroes. Message posted to http://sunninews.wordpress.com/2008/12/02/mumbai-attack-remembering-the-heroes/

Armellino, R. (2007). *When they come to kill the kids: The critical need for "immediate action rapid deployment" in school invasions.* Retrieved March 30, 2010, from http://www.policeone.com/columnists_internal.asp?view=1271208&vid=1271209

Arquilla, J. (2010). The new rules of war. *Foreign Policy, March/April 2010* Retrieved February 2010, from http://www.foreignpolicy.com/articles/2010/02/22/the_new_rules_of_war?page=0,2

Bardach, E. (2009). *A practical guide for policy analysis* (3rd ed.). Washington, DC: CQ Press.

Bergen, P. (2008). Al Qaeda, the organization: A five year forecast. *The Annals of the American Academy of Political and Social Science, 618*(1), 14–30.

Bolgiano, D. (2009). *Training America's strategic corporals*. Carlisle, PA: Strategy Research Project, U.S. Army War College.

Borelli, F. (2005). *Active shooter response training: A modern police necessity.* Retrieved December 24, 2009, from http://www.poam.net/main/train-educate/active-shooter-response-training.html

Brenner, M. (2009). Letter from Mumbai: Anatomy of a siege. *Vanity Fair* (November), 122–137.

Buck, D. A., Trainor, J. E., & Aguirre, B. E. (2006). A critical evaluation of the incident command system and NIMS. *Journal of Homeland Security and Emergency Management, 3*(3).

Burton, F., & Stewart, S. (2009). Mitigating Mumbai. *Stratfor Today, January 14, 2009.* Retrieved October 2009, from http://www.stratfor.com/weekly/20090114_mitigating_mumbai

City Mayors: Running the World's Cities. (2007). *The largest cities in the world by land area, population, and density.* Retrieved May 1, 2010, from http://www.citymayors.com/statistics/largest-cities-density-125.html

CNN. (1997, February 28). Botched LA bank heist turns into bloody shootout. *CNN*. Retrieved January 2010, from http://www.cnn.com/US/9702/28/shootout.update/

Coile, R. (1996). California's standardized emergency management system. *American Society of Professional Emergency Planners Journal.*

Commonwealth Human Rights Initiative. (n.d.). *Police organization in India*. New Delhi, India: Commonwealth Human Rights Initiative.

Dawkins, R. (1989). *The selfish gene*. Oxford: Oxford University Press.

Duraphe, A. T. (2009). *Final report Mumbai terror attack cases 26th November 2008*. Mumbai, India: Government of India.

Donahue, A. K., & Tuohy, R. V. (2006). Lessons we don't learn: A study of the lessons of disasters, why we repeat them, and how we can learn from them. *Homeland Security Affairs, 2*(3).

Dyer, C., McCoy, R. E., Rodriguez, J., & Van Duyn, D. N. (2007). Countering violent Islamic extremism: A Community responsibility. *FBI Law Enforcement Bulletin, 76*(12), 3–8.

Fair, C. C. (2009). *Antecedents and Implications of the November 2008 Laskar-e-Taiba (LeT) Attack Upon Several targets in the Indian Mega-City of Mumbai; Before the House Homeland Security Committee: Subcommittee on Transportation Security and Infrastructure Protection*. Santa Monica, CA: Rand Corporation.

Franco, Z. E., Zumel, N., Holman, J., Blau, K., & Beutler, L. E. (2009). *Evaluating the impact of improvisation on the incident command system: A modified single case study using the DDD simulator*. Proceedings of the 6th International ISCRAM Conference, Gothenburg, Sweden.

Freier, N. (2009). *DoD leaders, strategists, and operators in an era of persistent unconventional challenge*. Washington, DC: Center for Strategic and International Studies.

French, G. *Patrol response to active shooter and terrorist incidents.* Retrieved March 30, 2010, from http://www.policeone.com/active-shooter/articles/1882267-Patrol-response-to-active-shooter-and-terrorist-incidents/

Fresno Bee. (2010). *Minkler shooter took his own life, police chief says.* Retrieved February 27, 2010, from http://www.fresnobee.com/2010/02/25/1836634/officer-involved-shooting-reported.html

Fretz, R. (2007a). *The stopwatch of death.* Retrieved March 30, 2010, from http://www.policeone.com/police-technology/Emergency-Response/articles/1349058-The-Stopwatch-of-Death

Fretz, R. (2007b). *The stopwatch death, Part II.* Retrieved March 30, 2010, from http://www.policeone.com/active-shooter/articles/1356405/

Ghetto. (n.d.). Quick read on the North Hollywood shootout. Message posted to http://www.fordpower.net/forums/showthread.php?t=129231

Giduck, J. (2005). *Terror at Beslan: A Russian tragedy with lessons for America's schools*. Golden, CO: Archangel Group.

GlobalSecurity.org. (n.d.). *Military explosives—Nitramines.* Retrieved February 13, 2010, from http://www.globalsecurity.org/military/systems/munitions/explosives-nitramines.htm

Goldstein, H. (1990). *Problem oriented policing*. New York: McGraw-Hill.

Government of India. (2009). *Mumbai terror attacks dossier of evidence: Section 1*. India: Government of India. Retrieved December 2009, from http://www.thehindu.com/nic/mumbaiattacksevidence-1.pdf

Hagen, J. D. (2006). *Interagency collaboration challenges among homeland security disciplines in urban areas.* Master's thesis, Naval Postgraduate School, Monterey, CA.

Hansa, R. (2010). The Mumbai terror attacks: Need for a thorough investigation. In R. Puniyani & S. Hashmi (Eds.), *Mumbai post 26/11: An alternative perspective* (pp. 64–79). New Delhi, India: SAGE.

Harrald, J. R. (2006). Agility and discipline: Critical success factors for disaster response. *The Annals of the American Academy of Political and Social Science, 604*(1)*,, 256–272, March 2006*, 256–272.

Hillyard, M. (2000). *Public crisis management: How and why organizations work together to solve society's most threatening problems*. Lincoln: Writer's Club Press.

House Committee on International Relations: Joint Hearing before the Subcommittee on International Terrorism and Nonproliferation and the Subcommittee on the Middle East and Central Asia. (2006). *Hezbollah's global reach.* Retrieved June 15, 2009, from http://foreignaffairs.house.gov/archives/109/30143.pdf

Howitt, A. M. & Leonard Herman B. Dutch. (2005). A command system for all agencies? *Crisis/Response, 1* (2)

India Express. (November 29, 2008). Unnoticed heroes on Mumbai attacks: Fire fighters. *India Express,* Retrieved February 2010, from http://www.indianexpress.com/story-print/392212/

Interaction Systems Incorporated. (2009). *Terrorism Open Source Intelligence Report (TOSIR) #374.* Retrieved June 21, 2009, from http://www.indymarines.org/pages/tosir.htm

International Association of Fire Chiefs & International Association of Fire Fighters. (2009). *Police and fire consolidation: An ineffective use of resources*. Fairfax, VA.: authors. Retrieved February 2010, from http://www.iafc.org/associations/4685/files/ leadrshp_ IAFFiafcPSOmanual.pdf

Jenkins, B. M., Crenshaw, M., Schmid, A. P., Weinberg, L., Ganor, B., Gorriti, G. & Gunaratna, R. (2007). *Terrorism: What's coming the mutating threat*. Oklahoma City, OK: Memorial Institute for the Prevention of Terrorism.

Johnson, J. (March 2, 1997). Gunfight fuels debate over police weapons. *Los Angeles Times,* pp. 1. Retrieved January 2010, from http://pqasb.pqarchiver.com/latimes/access/11168723.html?FMT=FT&FMTS=ABS:CITE:FT&type=current&date=Mar+2%2C+1997&author=JOHN+JOHNSON&pub=Los+Angeles+Times&desc=Gunfight+Fuels+Debate+Over+Police+Weapons&pf=1

Kamte, V. (2009). *To the last bullet*. Pune, India: Ulhas Latkar, Ameya Prakashan.

Kelling, G. F. & Coles, C. M. (1996). *Fixing broken windows: Restoring order and reducing crime in our communities*. New York: Touchstone.

Kettl, D. F. (2006). Is the worst yet to come? *The annals of the American Academy of Political and Social Science, 604* (1), 273–287.

Klein, G. (1999). *Sources of power: How people make decisions*. Cambridge: MIT Press.

Krulak, C. C. (1999). The strategic corporal: Leadership in the three-block war. *Leatherneck, 82* (1), 14–17.

Lait, M. (January 16, 1998). LAPD has yet to deploy assault rifles it urgently requested. *Los Angeles Times*, pp. 1. Retrieved February 2010, from http://pqasb.pqarchiver.com/latimes/access/25424661.html?FMT=FT&FMTS=ABS:CITE:FT&type=current&date=Jan+16%2C+1998&author=MATT+LAIT&pub=Los+Angeles+Times&desc=LAPD+Has+Yet+to+Deploy+Assault+Rifles+It+Urgently+Requested&pf=1

Las Vegas Metropolitan Police Department. (n.d.a). *Computer assisted dispatch system.* Unpublished manuscript.

Los Angeles Police Department. (n.d.b). *LAPD online.* Retrieved February 12, 2010, from http://www.lapdonline.org/

Las Vegas Metropolitan Police Department. (2010). *Mumbai terrorist attacks (26/11/2008): Implications for major cities*. Las Vegas, NV: Las Vegas Metropolitan Police Department.

Leedy, P. D. & Ormrod, J. E. (2005). *Practical research: Planning and design* (8th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Los Angeles Police Department. (2009). *Chief's message April 2009.* Retrieved December 24, 2009, from http://lapdblog.typepad.com/lapd_blog/2009/04/chiefs-message-april-2009.html

Magnier, M. (2009, November 26). The World: Added security fails to comfort Mumbai: A year after terrorist attacks that killed 166, observers say the measures fall far short. *Los Angeles Times*, p. A 39. Retrieved January 2010, from http://libproxy.nps.edu/login?url=http://proquest.umi.com.libproxy.nps.edu/pqdweb?did=1908307991&sid=3&Fmt=3&clientId=11969&RQT=309&VName=PQD

Mata, V. R. (2010). *The contribution of police and fire consolidation to the homeland security mission*. Monterey, CA: Master's thesis, Naval Postgraduate School.

Matarese, L., Chelst, K., Fisher-Stewart, G., & Pearsall, A. (2007). Public safety concept in the post-9/11 world. *Public Management, 89*(4), 14–17.

Mathew, B. (2010). As the fires die: The terror of the aftermath. In R. Puniyani, & S. Hashmi (Eds.) *Mumbai post 26/11: An alternative perspective* (pp. 8–15). New Delhi, India: SAGE.

McCarthy, R. *North Hollywood shootout.* Retrieved February 2, 2010, from http://survivalmonkey.com/survinfo/Community%20Groups/Leaders%20and%20Groups%20in%20the%20news/North%20Hollywood%20shootout/North%20hollywood%20part%202.pdf

MiD DAY Infomedia Ltd. (2010). *Qasab's full confession.* Retrieved May 17, 2010, from http://www.mid-day.com/news/2008/dec/101208-Mumbai-Terror-attack-Mohd-Amir-Qasab-Taj-Mahal-Hotel-Trident-Hotel-Cst-station.htm

Mills, S. J. (1997). *Military operations in urban terrain: A future perspective for a joint environment.* Master's thesis, U.S. Naval War College, Newport, Rhode Island.

Moody, T. J., & Bellavita, C. (2009). *Locate, target, and destroy the attackers: Filling the gap between NIMS/ICS and the law enforcement initial response in the age of the urban jihad.* Message posted to http://www.hlswatch.com/2009/08/06/locate-target-and-destroy-the-attackers-filling-the-gap-between-nimsics-and-the-law-enforcement-initial-response-in-the-age-of-urban-paramilitary-terrorism/

Morris, H. (2007). The world we live in. *Planning* (1727), 16–17.

National Commission on Terrorist Attacks upon the United States. (2004). *The 9/11 Commission report: The final report of the National Commission on Terrorist Attacks upon the United States*. New York: W.W. Norton.

National Incident Command System Integration Center. (2004). *NIMS and the Incident Command System*. Washington, DC: NIMS Integration Center.

The National Response Team. (n.d.). *Incident command system/ Unified Command (ICS/UC) Technical Assistance Document*. Washington, DC: U.S. author.

New York Police Department. (2008). *Mumbai attack analysis*. New York: author.

Newton, J. & Schuster, B. (March 4, 1997). The North Hollywood shootout: LAPD commander turned holdup "bedlam" into Order; Crime: Royal Scott LaChasse wins praise for directing response, coordinating a flood of incoming officers. *Los Angeles Times*, pp. 1. Retrieved February, 2010, from http://pqasb.pqarchiver.com/latimes/access/11184167.html?FMT=FT&FMTS=ABS:CITE:FT&type=current&date=Mar+4%2C+1997&author=JIM+NEWTON%3BBETH+SHUSTER&pub=Los+Angeles+Times&desc=THE+NORTH+HOLLYWOOD+SHOOTOUT%3B+LAPD+Commander+Turned+Holdup+%27Bedlam%27+Into+Order%3B+Crime%3A+Royal+Scott+LaChasse+wins+praise+for+directing+response%2C+coordinating+a+flood+of+incoming+officers.&pf=1

Overseas Security Advisory Council. (2008, December). *Mumbai combined arms operation November 26–28, 2008*. Retrieved June 19, 2009, from http://msnbcmedia.msn.com/i//MSNBC/Components/ArtAndPhoto-Fronts/WORLD_NEWS/081202/Mumbai_attack.pdf

Palin, P. J. (2009). Strategic corporals and mission command. Message posted to http://www.hlswatch.com/2009/08/11/strategic-corporals-and-mission-command/

Pradhan, R. D., & Balachandran, V. (2009). *Report of the High Level Enquiry Committee (HLEC) on 26–11* (No. Raasua.2008/C.R.34/29-A). Maharastra, India: Maharastra Government.

Population Reference Bureau. (2007). *Is Delhi India's largest city?* Retrieved May 1, 2010, from http://www.prb.org/Articles/2007/delhi.aspx?p=1

Quarantelli, E. L. (1999). *The disaster recovery process: What we know and do not know from research.* Preliminary Paper 286. Newark, NJ: Disaster Research Center, University of Delaware.

Quarantelli, E. L. & Dynes, R. R. (1977). Response to social crises and disaster. *Annual Review of Sociology, 3*, 23–49.

Rabasa, A., Blackwill, R. D., Chalk, P., Cragin, K., Fair, C. C., Jackson, B. A., Jenkins, B. M., Jones, S. G., Shestak, N., & Tellis, A. (2009). *The lessons of Mumbai*. Santa Monica, CA: RAND Corporation.

Robb, J. (2007). The coming urban terror. *City Journal* (summer). Retrieved November, 2009, from http://www.city-journal.org/html/17_3_urban_terrorism.html

Rosegrant, S. (2001a). *The shootings at Columbine High School: The law enforcement response* (No. C16–01–1612.0). Cambridge, MA: Harvard Kennedy School of Government.

Rosegrant, S. (2001b). *The shootings at Columbine High School: Responding to a new kind of terrorism sequel* (No. C16–01–1612.1). Cambridge, MA: Harvard Kennedy School of Government.

Schuster, B., & Smith, D. (March 1, 1997). The North Hollywood shootout: Gunfire, hostages and terror: 2 suspects slain, 10 officers injured in heist gone awry. *Los Angeles Times*, p. 1. Retrieved February 2010, from http://pqasb.pqarchiver.com/latimes/access/11359573.html?FMT=FT&FMTS=ABS:CITE:FT&type=current&date=Mar+1%2C+1997&author=BETH+SHUSTER%3BDOUG+SMITH&pub=Los+Angeles+Times&desc=The+North+Hollywood+Shootout%3B+Gunfire%2C+Hostages+and+Terror%3B+2+Suspects+Slain%2C+10+Officers+Injured+in+Heist+Gone+Awry&pf=1

Seattle Fire Department Response Guidelines. (2009). *Seattle Fire Department operating guideline 4004*. Seattle, WA: Seattle Fire Department.

Senate Committee on Homeland Security and Governmental Affairs. (2009). *Lessons from the Mumbai Terrorist attacks.* Retrieved June 20, 2009, from http://hsgac.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=605269ed-bba5-46ef-9e53-8bd08fc3372f

Senate Committee on Homeland Security and Governmental Affairs. (2009). *Lessons from the Mumbai Terrorist attacks, Part II.* Retrieved June 16, 2009, from http://hsgac.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=f117251e-16da-4fac-929b-9d2991bdd14b

Shah, A. *Afghans tighten security in Kabul after attack.* Retrieved April 18, 2010, from http://abcnews.go.com/International/wireStory?id=9598520

Stinchcomb, J. B., & Ordaz, F. (2007). The integration of two "brotherhoods" into one organizational culture: A psycho-social perspective on merging police and fire services. *Public Organization Review, 7,* 143–161.

Sullivan, J. P., & Elkus, A. (2009). Preventing another Mumbai: Building a police operational art. *CTC Sentinel, 2*(6), 4–7.

Tallen, B. (2008). Paramilitary terrorism: A neglected threat. *Homeland Security Affairs, 4*(2) Retrieved March 2010, from https://www.hsdl.org/homesec/docs/dhs/nps41-063008-05.pdf&code=9a8e53f94473063d88a14d57f08d1070

Templeton, D. R. (2005). *Assessing the utility of work team theory in a unified command environment at catastrophic incidents*. Master's thesis, Naval Postgraduate School, Monterey, CA.

Trojanowicz, R. & Bucqueroux, B. (1990). *Community policing: A contemporary perspective*. Cincinnati, OH: Anderson.

U.S. Department of Homeland Security. (2003). *Homeland security presidential directive/HSPD-5*. Washington, DC: author.

U.S. Department of Homeland Security. (2004a). *National incident management system*. Washington, DC: author.

U.S. Department of Homeland Security. (2004b). *National response plan*. Washington, DC: author.

U.S. Department of Homeland Security. (2005). *National planning scenarios.* Washington, DC: author.

U.S. Department of Homeland Security. (2008). *National response framework.* Washington, DC: author.

U.S. Fire Administration. (1999). *Wanton violence at Columbine High School* No. USFA–TR–128). Emmitsburg, MD: U.S. Fire Administration. Retrieved February 2010, from http://www.usfa.dhs.gov/downloads/pdf/publications/tr-128.pdf

U. S. Marine Corps. (1996). *Command and control* (No. MCDP 6). Washington, DC: Department of the Navy.

Virginia Tech Review Panel. (2007). *Mass shootings at Virginia Tech April 16, 2007: report of the review panel*. Commonwealth of Virginia. Retrieved February 2010, from http://www.governor.virginia.gov/TempContent/techPanelReport-docs/FullReport.pdf

Wenger, D., Quarantelli, E. L., & Dynes, R. R. (1990). Is the incident command system a plan for all seasons and emergency situations? *Hazard Monthly, 10* (March), 8–12.

Yates, J. (1999). Improving the management of emergencies: Enhancing the ICS. *Australian Journal of Emergency Management* (Winter), 22–28.

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