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## What Keeps Them Up at Night? Al Qaeda and Weapons of Mass Destruction

*The popular author Thomas Clancy wrote a very prescient novel in 1991 entitled The Sum of All Fears. The main plot of the novel involves a group of Middle Eastern terrorists who accidentally acquire a nuclear weapon. The challenge is to then transport this plutonium-based weapon into the United States, detonate it at the Super Bowl in order to generate a massive loss of life and capitalize on the publicity given to the incident. The fictional scenario in Clancy's book is serious. At this moment, the leadership of al Qaeda is strategizing on a high impact attack against the United States that could cause more casualties than sustained on 9/11. The possible marriage of al Qaeda and a weapon of mass destruction would present a very difficult challenge for the United States and its allies. CIA Director Michael Hayden, FBI Director Robert Mueller and Director of Homeland Security Michael Chertoff have all raised this issue recently as their greatest concern. A nuclear weapon or even a dirty bomb would have a devastating and long-term effect. A recent study by a University of Southern California research project suggested that a dirty bomb attack on the Los Angeles-Long Beach port would probably fail, but the economic consequences of a successful strike could climb into the tens of billions of dollars. The American Academy of Actuaries estimated potential insured losses from a medium-sized radiological attack on Washington, D.C. at \$106.6 billion, and a similar attack on San Francisco would result in losses of \$92.2 billion.*

Osama bin Laden recently released a video timed to coincide with the sixth anniversary of 9/11 in which he claimed to be alive and well and still actively involved in waging jihad against the West. He even called for an Islamic revolution in Pakistan to overthrow the current government. Pakistan is a Muslim country with an incipient radical Islamic movement, as witnessed recently from the Red Mosque events that occurred in the Federally Administered Tribal Areas (FATA) of Western Pakistan – events that threaten to unsettle an already unstable and unpopular military government. There is a method to bin Laden's madness; Pakistan is a worrisome member of the nuclear community,

exemplified by the activities of A.Q. Khan, a man who has been dedicated to increasing nuclear proliferation. To date, bin Laden has failed to overthrow the moderate Arab states in the Middle East, particularly those possessing the oil wealth necessary to carry jihad to the West. The acquisition of nuclear weapons by a Taliban-controlled government would fit nicely into his plans.

The law enforcement, intelligence and security organizations in the United States have learned to live with the threat of terrorism for the past fifty years. However, present threats are more dangerous than past ones. Terrorism has its own natural history, shaped by circumstances and events. Contemporary international terrorism emerged in the late 1960s from a confluence of political circumstances and technological developments. The volume of terrorist incidents increased in the 1970s as terrorist groups seemed to proliferate.

A more ominous change was taking place at the same time. Terrorism was becoming bloodier and more religiously motivated, inspiring yet another innovation in terrorist tactics-suicide missions. As a result, more terrorist events led to fatalities rather than non-fatal, purely symbolic violence. International terrorist acts that took place in the United States during the 1970s and 1980s were not targeted at the United States and its infrastructure, but rather at diplomatic establishments and foreign commercial entities, and carried out chiefly by immigrants and refugees with "old world grudges." The intent was not to kill large numbers of Americans and paralyze our infrastructure and economy, but to use violence in a targeted venue to make a political statement regarding real or purported grievances. These groups were primarily amateurs who lacked sophisticated training and adequate financial support. Middle Eastern groups periodically attacked American interests overseas, but were unable to mount a major attack in the United States. Prior to 9/11, the most devastating attack carried out in the United States was a domestic act of terrorism, the Timothy McVeigh's

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1995 truck bombing of the Federal Building in Oklahoma City. However, the current threat, al Qaeda and its inspired surrogates, has a strategy to impose their will on the Western world and create a radical Islamic caliphate, similar to the situation that existed in the Middle East one thousand years ago. While the “Cold War” was caused by the Soviet Union proselytizing communism, the war on terror has to do with al Qaeda’s attempt to spread radical Islam.

#### How did the current threat come about?

The pivotal event in the foundation of al Qaeda and this movement was the invasion of Muslim Afghanistan by Western, communist-proselytizing Soviet Union - in an area Al Qaeda believed was reserved for Islam. This new crusade provided the catalyst that brought Afghanistan financial support and volunteers from throughout the Islamic world, transforming the movement into a truly global jihad. After several years of bloody conflict, which also included assistance from the West, the Russians were convinced that the effort was not worth the sacrifice of wealth and blood needed to subdue this element. The ensuing chaos in Afghanistan allowed the radical Islamic faction, the Taliban, to eventually govern the country and provided an emboldened al Qaeda a base to recruit, organize and train for their global jihad. The Soviet collapse in 1989 encouraged enormous confidence among individuals like Osama bin Laden, who in 1996 declared war on the United States and commenced hostilities just two years later with the 1998 bombing of U.S. embassies in Kenya and Tanzania. These bombings were followed with planned attacks on an American hotel in Indonesia, a bombing of a major American Airport and the sinking of an American battleship and oil tanker. Simultaneous attacks on the World Trade Center in New York, the Pentagon and the White House to take place on 9/11. Since 9/11, al Qaeda’s targets have been varied - Bali, Madrid, Mumbai and London – and have also included other locations throughout Africa, Asia and Europe where attacks

took place known to have al Qaeda involvement. Several planned attacks have been foiled in North America and Australia, but it remains to be seen whether continued counterterrorism success can be sustained, as 9/11 becomes a more distant memory. In September 2007, CIA Director General Michael Hayden told the Council on Foreign Relations, “Our analysts assess with high confidence that al Qaeda’s central leadership is planning high-impact plots against the United States. We who study the enemy see a danger more real than anything our citizens at home have confronted since our Civil War.”

What distinguishes these jihadists from their terrorist predecessors is their organized search for weapons of mass destruction (WMDs). Al Qaeda’s continuing quest for 9/11-scale events, evident in various post-9/11 terrorist plots uncovered over the past six years, sustain fears that terrorists will eventually acquire and use true weapons of mass destruction.

The rise of al Qaeda coincided with the spread of the Internet, and the jihadists were quick to exploit the opportunities it offered. Al Qaeda’s organizational ability in cyberspace is unprecedented, and its members now operate on the Internet with impunity - recruiting, proselytizing, plotting and planning. Though previous Islamist websites appeared in Arabic, now there are Islamic websites in numerous languages, giving bin Laden a wide audience of Muslim youth who are potential recruits for the “caravan of martyrs.” Islam’s violent jihadists currently represent the most serious threat to Western security. Al Qaeda has demonstrated it can attack anyone, anywhere, at any time.

The major question is how soon terrorist groups will decide to cross the conventional threshold of terrorism and carry out unconventional acts, such as those involving radiological devices. Lack of capability, not of will, is the principal barrier to escalation. The emergence of this threat coincides with the growing concern about proliferation and inadequate security of weapons of mass destruction and nuclear materials. Nuclear smuggling and terrorism, like contraband smuggling and non-

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nuclear terrorism, are first and foremost law enforcement problems. The National Defense University released a report in September stipulating that global cooperation between law enforcement agencies and a coordinated nuclear detection network is needed if the world hopes to prevent terrorists from acquiring WMD material. Since 9/11, the United States has embarked on an ambitious path to equip domestic seaports and some land crossings with radiation detection devices. The United States will have the ability to scan almost 100 percent of cargo containers arriving at major domestic seaports by the end of 2007, and next year nearly all land and sea ports of entry will have the radiation portal monitors. Nevertheless, investigators with the Government Accountability Office found various security vulnerabilities along the U.S./Canadian border that terrorists could exploit to bring an unconventional weapon into this country. Disturbingly, a Russian official recently revealed that Russia has intelligence that terrorists have been attempting to acquire nuclear weapons.

Ever-increasing energy demands, security of energy supplies, and environmental considerations are driving the debate for greater investment in nuclear energy. A large increase in nuclear power would mean uranium enrichment for reactor fuel and spent fuel reprocessing would expand, perhaps with a corresponding risk of the spread of critical fuel-cycle technologies to new countries. The consequences for nuclear weapons would be profound. Another Russian official expressed concern that too many different agencies transport Russian nuclear materials around the country - thousands of times a year. This is an obvious vulnerability that could be exploited by Islamic fanatics who have been active in Russia in connection with the wars in the Caucasus.

No country, however prepared it may be, is immune to the danger of nuclear terrorism. Nuclear facilities and their power-generating infrastructures are attractive targets for theft, sabotage, unauthorized access or damage perpetrated by terrorists. Stolen chemical or radiological components could be used in building weapons. Additionally, if deliberately

damaged by sabotage, a nuclear installation could become a dispersal device on the scale of Chernobyl.

While nuclear weapons are far deadlier than radiological devices, the materials needed to build them are reasonably secure and the technological challenges facing the terrorists are enormous. However, the ingredients for constructing a dirty bomb are available throughout the world. These low-tech weapons are easy to manufacture and use. In recent years, it has been shown that terrorist organizations are seeking radiological materials to construct radiological dispersal devices (RDD) or dirty bombs, which use conventional explosives to contaminate urban areas with radiation. Although conventional explosives have been the terrorist weapon of choice for many years, experts predict that terrorists would use radiological devices given the opportunity. Considering the relative ease of manufacturing and deploying RDDs and the political objectives terrorists can expect to gain from such unconventional attacks, radiological terrorism has been portrayed as a clear and present danger to the civilized world.

A radiological bomb harms people by exposing them to radioactive alpha and beta particles, as well as gamma rays. The cumulative dose of radiation absorbed can prove to be harmful or fatal. The danger resulting from a dirty bomb blast is exacerbated by the fact that radiation cannot be seen, felt, smelled or tasted. In short, a person could be exposed and not have any reason to believe contaminants had entered his or her body. However, a person exposed to higher levels of radiation could experience symptoms such as swelling and reddening of the skin, nausea, vomiting and diarrhea. To confirm the presence of radiation, police or firefighters must check the area using specialized equipment.

Clearly, however, the threat of radiological contamination imposes a stress disproportionate to the actual damage or casualties it inflicts. It is the

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exaggerated fear of radioactive contaminant that allows terrorists to achieve their aims.

The United States CIA has warned, "Construction of an RDD is well within al Qaeda's capabilities as radiological materials are relatively easy to acquire from industrial or medical sources. But to date, the best-known cases of al Qaeda's interest in radiological terrorism indicate an unsophisticated understanding of how to effectively use radioactive materials. However, more recent evidence suggests an increasing sophistication in the use of radioactive materials and increasing interest in using these materials in terrorism. In September 2006, the leader of al Qaeda in Iraq called for nuclear scientists and explosive experts to assist his organization in making biological and "dirty radioactive weapons."

The major manufacturers and distributors of commercially used radioisotopes and radioactive sources are located in nine countries: Argentina, Belgium, Canada, France, the Netherlands, Russia, South Africa, the United Kingdom and the United States. China and India could also become major producers. There are many ways in which terrorists could access these materials: bribery, blackmail, political instability, officials ideologically aligned with terrorists, illicit licensing, orphaned sources and insider access. Poor regulatory controls could open dangerous vulnerabilities, and without knowing histories and backgrounds of people who have access to sources, terrorists could easily enlist an insider to acquire these materials.

Although terrorists have yet to detonate a dirty bomb or disperse radioactive material using an RDD, evidence in recent years points to increased interest in radiological terrorism. Some terrorists appear to be motivated to consider this tactic because the means and opportunities for terrorist exploitation of radioactive materials are apparent, and this assessment calls for enhanced security measures.

### The Time for Urgency is Now®

*The Federal Government and all organizations focused on protection should dedicate considerable resources to the critical issues that cause our national leaders to lose sleep, like international terrorism and weapons of mass destruction. While terrorists still prefer weapons such as explosives the government cannot be expected to stop every conventional attack – and terrorists only have to be lucky once while the authorities need to be successful all the time. The local authorities should increase their intelligence collection, community relations and information sharing. Since eighty-five percent of the American infrastructure is in the hands of the private sector, this sector should take prudent and reasonable steps not to be America's Achilles' heel. An all-hazards approach to install countermeasures to prevent the daily challenges of crime, pilfering, workplace violence, weather related extremes, and even pandemics will put an enterprise in an excellent position to prevent an attack and to protect both personnel and physical facilities from a conventional attack or a dirty bomb. This approach is founded on the notion that all disasters, natural and manmade, have certain features in common. Rather than diffusing effort and resources by preparing for each type of disaster separately, an across-the-board strategy would build up capacity to respond to various contingencies while taking advantage of the economies of a unified approach. If proper precautions such as risk assessments and serious defensive efforts have been taken, and appropriate countermeasures have been implemented to assure resiliency in the business continuity plan, neither terrorism nor the threat of dirty bombs should cause those responsible for security in the private sector to lose sleep. The time for urgency is now.*



The Lipman Report Editors