#### *Perception* of strong border security is key to deterring terrorists

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4.2.2 Contributions of Border Interdiction, Deterrence, and Networked Intelligence The principal contributions that border security makes to counterterrorism relate to preventing certain kinds of terrorist attacks dependent on ﬂows into the country of people or materials. These contributions can be illustrated by considering what opportunities exist to disrupt terrorist attacks while they are being planned and orchestrated. Through a number of planning eﬀorts, DHS and its components have developed detailed planning scenarios of terrorist events (DHS, 2006). Each of these scenarios has been deconstructed into attack trees that are useful for considering how DHS border-security programs contribute to terrorism security eﬀorts. In their most generic form, these attack trees specify dimensions of attack scenarios with respect to building the terrorist team, identifying a target, and acquiring a weapon (see Figure 4.1). This decomposition of attack planning provides a structure around which to consider how interdiction, deterrence, and networked intelligence contribute to preventing terrorist attacks and, thus, why it is relevant to measure these functions. DHS border-security eﬀorts focus on interdiction of terrorist team members and weapons or weapon components when they cross U.S. borders. Examples of initiatives that are intended to enhance these capabilities include the Secure Border Initiative, the acquisition of Advanced Spectroscopic Portals for nuclear detection, the Secure Communities Initiative, and US-VISIT. In addition, it is often pointed out that, when border-security measures are perceived to be eﬀective, terrorists groups may be deterred from attacking in particular ways, or possibly from attacking at all. This could result from awareness of what type of surveillance is occurring or the capability of interdiction systems. In either case, deterrence refers to the judgment of terrorists that they will not be successful, leading them to choose another course of action. Finally, many border-security initiatives also contribute information to the national networked-intelligence picture. For example, the Secure Communities Initiative has implemented new capabilities to allow a single submission of ﬁ ngerprints as part of the normal criminal arrest and booking process to be queried against both the FBI and DHS immigration and terrorism databases. This eﬀort makes it easier for federal and local law enforcement to share actionable intelligence and makes it more diﬃcult for terrorists to evade border-security eﬀorts. 4.2.3 Non-DHS Factors on Which Border-Security Outcomes Depend The terrorist threat that border-security eﬀorts must counter will be signiﬁcantly inﬂuenced by the eﬀectiveness of security, economic policy, military, diplomatic, and intelligence eﬀorts targeting other aspects of terrorism. If terrorists overseas are able to acquire signiﬁcant quantities of weapon material or establish advanced counterintelligence capabilities, attack plans may easily overwhelm border-security eﬀorts. If terrorists are successful at recruiting and building networks within the United States, border-security eﬀorts may never get the chance to interdict attacks. Similarly, the perceptions that terrorists have about the diﬃculty of entering the country could inﬂuence decisions of how to organize and plan attacks. If borders are viewed as porous and open, terrorist groups can be expected to take advantage of this vulnerability. To the extent that border security is seen as presenting barriers to terrorist planning (especially barriers that include substantial operational uncertainty), eﬀorts will create a deterrent eﬀect that could lead terrorists to shift to attacking interests outside the United States or attacking in diﬀerent ways. The extent to which border security will be eﬀective at both interdicting and deterring terrorists will itself depend on a number of contextual factors, including the following: • material being smuggled: Is it possible to detect the material using noninvasive means (e.g., with nuclear detectors)? • mode of travel: Will crossings be via air, land, or sea? • environment and terrain: Will crossings occur during times when and at places where border security beneﬁts from good visibility or poor visibility? • U.S. intelligence capabilities: Do expenditures on intelligence collection and analysis aﬀord border security the ability to anticipate terrorist incursion attempts? • terrorist counterintelligence capabilities: Do terrorists have enough understanding of border-security tactics and techniques to be able to avoid them and to do so with considerable conﬁdence? The answer to this, of course, will depend on the visibility and predictability of border-security systems and procedures. The measures used for evaluation of border-security eﬀ orts must be able to reﬂect some of these dependencies and factors that moderate the effectiveness of border security.

#### Nuclear terrorism is *very* *likely*—no acquisition barriers, no lack of motive, high risks, enormous consequences—empirics/studies prove

Goodspeed 12 — Peter Goodspeed, Senior Reporter of International Affairs at the National Post, 2012 (“Nuclear terror threat; A 'dirty bomb' could make cities uninhabitable, destroy global economy”, March 24 2012, National Post, Full Comment, <http://fullcomment.nationalpost.com/2012/03/24/preventing-devastating-nuclear-terrorist-attack-aim-of-world-leaders-meeting/>, Accessed 7-5-13 | NikP)

Six months after the Sept. 11, 2001 terrorists attacks on New York, Henry Kelly, then president of the Federation of American Scientists, warned U.S. leaders there may be worse to come. "Recent events make it necessary to take almost inconceivably evil acts seriously," he told members of the U.S. Senate's Foreign Relations Committee. In a calm, determined voice he described the threat posed by nuclear terrorism - a risk so grave it looms over a today summit of 53 world leaders that opens in Seoul, South Korea, Monday. Terrorists or a rogue state may some day acquire a nuclear weapon and threaten to kill millions of people in a single devastating blow, he said. But the greater risk comes from a malicious radiological attack or "dirty bomb" that uses common industrial or commercial nuclear material to create panic, threaten the health of thousands over a prolonged period, make entire cities uninhabitable, cause billions of dollars in damage and destroy the global economy. Mr. Kelly outlined what would happen if terrorists exploded a bomb, containing a single, 12 inch-long, piece of radioactive cobalt taken from a food irradiation plant, at the lower tip of Manhattan, near the former World Trade Center. "An area of approximately one-thousand square kilometres, extending over three states, would be contaminated," he said. "Over an area of about three hundred typical city blocks, there would be a one-in-ten risk of death from cancer for residents living in the contaminated area for forty years." "The entire borough of Manhattan would be so contaminated that anyone living there would have a one-in-a hundred chance of dying from cancer caused by the residual radiation. It would be decades before the city was inhabitable again, and demolition might be necessary." On Monday, the Seoul Nuclear Security Summit, the largest gathering of world leaders since the creation of the United Nations in 1945, aims to create a global system that will deny terrorists access to nuclear materials through improved security, decreased use of potent materials, enhanced regulatory and export controls, increased intelligence sharing, expanded use of radiation detectors and improved disposal and recycling of nuclear material. A follow-up meeting to a nuclear summit, convened by U.S. President Barack Obama in Washington in 2010, the Seoul meeting is tightly focused on keeping nuclear weapons and radiological materials out of the hands of terrorists. It will deal only tangentially, in sideline discussions, with nuclear proliferation threats posed by countries such as Iran and North Korea. But the threat of devastating death and destruction will still dominate the talks. "We believe the potential for nuclear terrorism remains high," said Page Stoutland, vice-president for nuclear security at the Nuclear Threat Initiative, a Washington-based think-tank. "There are currently thousands of tons of nuclear materials in the world and those materials today are stored at hundreds of sites in over 30 countries." he said. "Some of those sites are well secured. Many are not, leaving weapons-usable nuclear materials vulnerable to theft or sale on the black market to terrorist organizations. "The elements of a perfect storm are in place: an ample supply of weapons-usable nuclear materials, an expansion of the knowledge and technical know-how to build a crude nuclear bomb accessible by the Internet or through rogue scientists and the determination of terrorists organizations to do it." The single greatest nuclear threat remains terrorists acquiring nuclear weapons. Scientists have estimated that, if detonated at New York's Grand Central Station, a ten-kiloton bomb (two-thirds the yield of the world's first nuclear weapon dropped on Hiroshima) would kill over 500,000 people immediately, injure hundreds of thousands more, permanently destroy most of Lower Manhattan and force the evacuation of all of New York City. Damage would be in the trillions of dollars. "A nuclear attack would be among the most difficult types of attacks for terrorists to accomplish," concludes a report prepared by Harvard University's Project on Managing the Atom. But, with the necessary fissile materials, "a capable and well organized terrorist group plausibly could make, deliver and detonate at least a crude nuclear bomb capable of incinerating the heart of any major city in the world." The amounts needed to build a crude nuclear bomb are small. With an efficient implosion design, a baseball-sized lump of plutonium weighing as little as four kilograms or a softball-sized lump of highly enriched uranium weighing 12 kilograms would be enough. To build a less efficient, but still devastating, gun-type bomb, terrorists would need 48 to 60 kilograms of highly enriched uranium. "There is an immense difference between the difficulty of making safe, reliable weapons for use in a missile or combat aircraft and making crude, unsafe, unreliable weapons for delivery by truck," said Matthew Bunn, a professor at Harvard University's Belfer Center for Science and International Affairs. "With highly enriched uranium, a gun-type bomb - like the one that obliterated Hiroshima - is very plausibly within the capabilities of a sophisticated terrorist group," he said. With weapons-usable nuclear material stored in hundreds of buildings in dozens of countries, under security situations that range from very stringent to virtually nonexistent, the risk of terrorists acquiring bomb-making materials remains great. "Theft of only 0.01% of the world stockpile could cause a global catastrophe," Mr. Bunn said. And terrorists have shown a definite interest in obtaining the materials needed to make both nuclear fusion and radioactive dirty bombs. Before he was killed last May, Osama bin Laden and al Qaeda had spent a decade trying to obtain nuclear weapons and may already have experimented with limited quantities of nuclear material. In 1998, as Russia reeled from an economic crisis, officials uncovered a conspiracy in which insiders at one of Russia's largest nuclear weapons facilities tried to steal 18.5 kilograms of highly enriched uranium. Just last June, officials in Moldavia arrested six people for smuggling 4.4 grams of weapons-grade uranium as part of a plot to sell up to nine kilograms of highly enriched uranium on the black market for $31-million. The Russian ringleader of the group is still at large and, according to news reports, may still have as much as a kilogram of uranium. In 2007, a group of attackers came within a breath of stealing the ingredients for a nuclear bomb, when they launched a midnight raid on South Africa's Pelindaba nuclear research centre, just west of Pretoria. South Africa developed nuclear weapons in 1979 and became the only state in the world to voluntarily abandon their nuclear arsenal in 1991. But the country still stores enough weapons-grade material for 25 nuclear bombs at the Pelindaba site. On November 8, 2007, two teams of armed, well-trained men attacked Pelindaba from two different directions. They deactivated several layers of security, including a 10,000 volt electrical fence, and entered the facility's control centre, where they shot a security guard, who still managed to trip an alarm. The attackers fled before they were able to take any nuclear material. But they spent 45 minutes alone inside the nuclear centre and have never been caught. Existing nuclear weapons stocks in countries like Pakistan, which is threatened by terrorism, corruption and jihadist radicals, or Russia, which still boasts the world's largest stockpile of tactical nuclear weapons, are always under threat. But it is radioactive material, the heart of any "dirty bomb," stored in thousands of nuclear power plants, research reactors, hospitals, laboratories, blood banks, factories and food processing plants around the world that may be most vulnerable to terrorists. "In the United States, a radioactive source is lost, stolen or missing about once a day," said Charles Ferguson, current president of the Federation of American Scientists. Khammar Mrabit, head of the International Atomic Energy Agency's Office of Nuclear Security, said he investigates roughly 200 incidents of improperly secured nuclear material each year. "The threat of malicious radiological attack is quite real, quite serious and deserves a vigorous response," Mr. Kelly warned 10 years ago in the aftermath of Sept. 11. "We must face the brutal reality that no technological remedies can provide complete confidence that we are safe," he said. "Determined malicious groups might still find a way to use radiological weapons when their only goal is killing innocent people."