Nuclear Terrorism: Threat Briefing. How Serious is the Threat?

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“Nuclear terrorism is the most serious danger the world is facing.”
— Mohamed ElBaradei, former director of the IAEA and winner of the 2005 Nobel Peace Prize
What if?

U.S. Capitol, Washington, D.C.

“Dragonfire” Bomb

Nuclear Terrorism: Threat Briefing
Key Questions

• **Who** could be planning a nuclear terrorist attack?

• **What** nuclear weapons could terrorists use?

• **Where** could terrorists acquire a nuclear bomb?

• **When** could terrorists launch the first nuclear attack?

• **How** could terrorists deliver a nuclear weapon to its target?

“Just one nuclear weapon exploded in a city—be it New York or Moscow; Tokyo or Beijing; London or Paris—could kill hundreds of thousands of people. And it would badly destabilize our security, our economies, and our very way of life.”

— President Barack Obama
Who?

*Al Qaeda, Chechnya-based separatists, Lashkar-e-Taiba, and Aum Shinrikyo have demonstrated interest in acquiring a nuclear weapon.*

- “Acquiring these weapons for the defense of Muslims is a religious duty.”
  — Osama bin Laden (1998)

- “We have the right to kill 4 million Americans—2 million of them children—and to exile twice as many and wound and cripple hundreds of thousands.”
  — Al Qaeda spokesman Suleiman Abu Gheith (2002)

- There are “clear signs of terrorists trying to acquire nuclear material through criminal networks.”
  — Former IAEA Director, Mohammed ElBaradei (2006)

“Al Qaeda has tried to acquire or make nuclear weapons for at least ten years…and continues to pursue its strategic goal of obtaining a nuclear capability.”
A sophisticated terrorist group could make a crude nuclear explosive—capable of destroying the heart of a major city—if it secured enough highly enriched uranium or plutonium.

- A **ready-made** weapon from the arsenal of a nuclear state
- An **improvised nuclear device** constructed from HEU or Pu stolen from a state stockpile
- An **attack** on a nuclear facility

U.S. intelligence assesses that “Al Qaeda probably had access to nuclear expertise and facilities and that there was a real possibility of the group developing a crude nuclear device...fabrication of at least a ‘crude’ nuclear device was within Al Qaeda’s capabilities, if it could obtain fissile material.”

— Commission on the Intelligence Capabilities of the U.S. Regarding WMD (2005)
Where?

The world’s stockpiles of HEU and separated plutonium are sufficient for more than 200,000 nuclear weapons.

- 23,360 nuclear weapons
- 1,600,000 kg HEU*
- 500,000 kg separated Pu*
- 1,131 nuclear facilities
- Hundreds of locations holding nuclear weapons or weapons-usable material

Only 25 kg of HEU or 8 kg of Pu are required for a bomb.

---IAEA

* 1 kg = 2.2 pounds

A.Q. Khan

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If terrorists acquire 25 kg of HEU, they could make an elementary nuclear bomb in less than 1 year.

“Unless the world community acts decisively and with great urgency, it is more likely than not that a weapon of mass destruction will be used in a terrorist attack somewhere in the world by the end of 2013.”
— Commission on the Prevention of Mass Destruction Proliferation and Terrorism (2009)
How?

Bringing an improvised nuclear device into a major city is as easy as drug smuggling or human trafficking.

- Cargo ships make 9,000 port stops per week.
- There are 20-30 million unauthorized immigrants worldwide.
- The IAEA reports 1,266 incidents of illicit trafficking over the last 12 years—submitted by 99 countries—including 18 incidents involving HEU or plutonium trafficking.
- “Experts estimate that terrorists with an amount of HEU that would fit into six one-liter* milk cartons, need only smuggle it across borders in order to create an improvised nuclear device that could level a medium-sized city.”
  — UN High-Level Panel on Threats, Challenges, and Change (2004)

* 1 liter ≈ 1/3 gallon

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Risk

Risk = Likelihood x Consequences

“Were a nuclear terrorist attack to occur, it would cause not only widespread death and destruction, but would stagger the world economy and thrust tens of millions of people into dire poverty…[creating] a second death toll throughout the developing world.”
— Kofi Annan, former UN secretary general (2005)

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Best Judgments

- “Nuclear terrorism is the most serious danger the world is facing.” — Mohamed ElBaradei, former director of the IAEA and winner of the 2005 Nobel Peace Prize (2009)

- “Nuclear terrorism is the most immediate and extreme threat to global security.” — Barack Obama, U.S. president (2009)

- “One of the most dangerous threats…is that of nuclear components falling into the hands of terrorists.” — Dmitry Medvedev, Russian president (2009)

- “Nuclear terrorism is one of the most serious threats of our time.” — Ban Ki-moon, U.N. secretary general (2007)

- “Terrorists’ capacity should not be underestimated to put together and detonate a Hiroshima-sized nuclear device.” — Co-chairs of the International Commission on Nuclear Non-proliferation and Disarmament: Gareth Evans, former foreign minister of Australia, and Yoriko Kawaguchi, former foreign minister of Japan (2009)

- “Every senior leader, when you’re asked what keeps you awake at night, it’s the thought of a terrorist ending up with a weapon of mass destruction, especially nuclear.” — Robert Gates, U.S. secretary of defense (2008)