

# WEAPONS OF MASS DESTRUCTION

A Comprehensive Approach

The changing threat

Ever since 1947, the Bulletin of the Atomic Scientists' 'doomsday clock' is recognized as a symbol for the nuclear threat in the world. The minutes before midnight on the clock demonstrate the actual threat. Since the beginning, the clock's arm has been moved back and forth, whenever the nuclear threat situation in the world changed. At the end of the Cold War the clock stood at seventeen minutes to midnight, while at the last presentation, in 2007, the clock was ticking five minutes to midnight.<sup>1</sup>



Even though the signature of the Non-Proliferation Treaty in 1968 and the ending of the Cold War reduced the political and strategic importance of weapons of mass destruction (WMD), at the beginning of the 21st century the WMD threat did not dissipate, but merely changed direction. In the new era, international terrorists and states with clandestine proliferation programs are considered by the international community as one of the biggest threats to global security. Furthermore, technical innovation have led to a situation

whereby a simple nuclear weapon, such as a gun-type device, while highly sophisticated in the 1940s, is now easily produced by non-state actors, such as criminal or terrorist groups.

Terrorist attacks, such as the ones on September 11, 2001, demonstrate that terrorist groups are willing and able to cause mass casualties. Some authors perceive that if the energy and time to prepare these attacks were invested in an attempt to acquire nuclear materials, this could be successful<sup>2</sup>. Moreover, it is well known that, in 1995, the Aum Shinrikyo cult released the chemical agent sarin in the Tokyo subway system, causing the death of 12 people and injuring many more. The nature of this attack drew attention to terrorists' desire to use WMD. To reach their goal, the Aum Shinrikyo cult actively recruited specialists, such as physicists, chemists, biologists and engineers.<sup>3</sup> Prior to the sarin attack, the Aum Shinrikyo explored the field of biological warfare, attempting several biological attacks between 1990 and 1995.<sup>4</sup>

There are more recent indications that non-state actors are seeking to acquire CBRN material. For example, the third report (2005) of the Analytical Support and Sanctions Monitoring Team, established pursuant to Resolution 1267, concluded that Al Qaeda 'may aim to release a virulent bacterium, virus or toxin, or claim to have done so in order to cause panic and generate publicity, or to detonate a radiological dispersal device (or "dirty bomb") in a place likely to attract wide media attention, such as the centre of a large city, an airport, sports stadium, theatre or similar public location'.<sup>5</sup> The content of Al Qaeda manuals, especially on the Internet, also suggests that Al Qaeda is interested in developing or acquiring CBRN material and weapons. In addition, it has been reported that the Revolutionary Armed Forces of Colombia, or FARC, has been trying to obtain radioactive material to build dirty bombs.<sup>6</sup>

## UN Attempts to prevent illicit trafficking of CBRN material

The first important line of defence against the threat of WMD terrorism is the prevention of illicit trafficking of chemical, biological radiological and nuclear (CBRN) material both within and among States.

In the last decades the international community has paid growing attention to the issue of CBRN material and weapons. Legal norms and international treaties initially focused on preventing states from developing CBRN weapon capabilities. In particular, the Treaty on the Non-Proliferation of Nuclear Weapons (opened for signature in 1968), the Biological Weapons Convention (opened for signature in 1972) and the Chemical Weapons Convention (opened for signature in 1993) were created to halt the spread of WMD.

With the adoption of Resolution 1540 in April 2004, the United Nations Security Council recognized the new direction of the CBRN threat. The Resolution states that illicit trafficking in CBRN material and weapons "adds a new dimension to the issue of proliferation and also poses a threat to international peace and security".<sup>7</sup> The contents of the Resolution focus on combating the production, acquisition and use of weapons of mass destruction and their means of delivery by non-state actors. The Resolution stipulates that all states shall refrain from providing any form of support to non-state actors that attempt to acquire WMD and shall adopt and enforce appropriate effective laws which prohibit any non-state actor from acquiring WMD and their means of delivery.

Moreover, in April 2005 the UN General Assembly adopted the International Convention for the Suppression of Acts of Nuclear Terrorism. The Convention details offences relating to the unlawful and intentional possession and use of radioactive material or a radioactive device, and the use or damage of nuclear facilities. States Parties are required to adopt measures where necessary to criminalize these offences.

More recently, on 8 September 2006, the General Assembly unanimously adopted the United Nations Global Counter-Terrorism Strategy<sup>8</sup>. In attempting to establish a new system of collective security, the strategy identifies a broad range of counter-terrorism measures, including the strengthening of States' cooperation in combating CBRN trafficking.

Within this legal framework, UN agencies and International/Regional Organizations are very active in assisting Member States to prevent and respond to WMD attacks. However the existing strategies often have an isolated approach to nuclear, chemical or biological materials.

No single organization possesses all the necessary resources, expertise and statutory power to assist States facing all possible aspects of the WMD threat. In attempting to develop a comprehensive approach to preventing illicit trafficking of CBRN material, UNICRI has developed the CBRN Knowledge Management System. The System has been designed in cooperation with the European Commission and with the technical support of the International Atomic Energy Agency (IAEA), the Organization for the Prohibition of Chemical

Weapons (OPCW), EUROPOL, the SECI Center and the World Customs Organization (WCO). The aim of the Knowledge Management System is to promote and improve the exchange of information and knowledge among States, and between States and International/Regional Organisations through a permanent and standardised process of collection, management and dissemination of technical data and information on illicit trafficking of CBRN material.

The Knowledge Management System is unique in its ability to make full use of the capabilities and experience of International/Regional Organisations and States. Lessons have been learned and good practices already exist, especially in the field of preventing illicit trafficking of radiological and nuclear material. Rather than “re-invent the wheel”, the System assists States in absorbing promising countermeasures and encourages them to develop an organisational learning approach through which States’ experts can learn collectively how to identify problems and solutions.

Through the system, the participating States have access to information that helps them improve strategic and operational responses in terms of development of appropriate countermeasures. Eventually, the system should become a self-sustainable instrument that improves States’ capabilities to prevent illicit trafficking of material components of CBRN weapons.

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(1) See: [http://www.thebulletin.org/doomsday\\_clock/](http://www.thebulletin.org/doomsday_clock/)

(2) Zaitseva L. and Hand K. (2003) Nuclear Smuggling Chains, Suppliers, Intermediaries, and End-Users American Behavioral Scientist, Vol. 46, No. 6, 822-844.

(3) Allison, G. (2004). Nuclear Terrorism. The Ultimate Preventable Catastrophe. New York: Times Books, pp. 40.

(4) See Kyle B. Olson “Aum Shinrikyo: Once and Future Threat?” (Arlington, Va.: Research Planning Inc., n.d.), <http://www.cdc.gov/ncidod/EID/vol5no4/olson.htm>.

(5) S/2005/572, p. 33.

(6) International Herald Tribune, 5 March 2008.

(7) S/RES/1540 (2004). 8 A/RES/60/288.