

## **BACKGROUND GUIDE**

### **SECURITY COUNCIL: 1540 COMMITTEE**

#### What is the 1540 Committee?

The 1540 Committee was born with the adoption by the United Nations Security Council of Resolution 1540 on the 28<sup>th</sup> of April of 2004. Its purpose is to exercise an active control over the proliferation of Nuclear, Biological and Chemical Weapons (NBC weapons) and other forms of weapons of mass destruction (WMDS). It encourages member states to abstain from providing support to what the resolution refers to “non-State actors”, in relation to NBC weapons and WMDS. It also takes upon the task of revising current non proliferation treaties related to the types of weapons mentioned earlier and exhorting the close adherence to the clauses established in these documents.

The role of the 1540 Committee is one of revision, advice giving and in-depth consulting. It provides the Security Council with all the information needed in the related topics and its main objective is to reduce the threat of the delivery and development of WMDS, be it by States or non-State actors.

#### **Measures of prevention and control of development of Nuclear Weapons by non-party States of the Non-Proliferation Treaty**

#### What is a Nuclear Weapon?

A nuclear weapon is an explosive device that utilizes either nuclear fission or fusion or both, to generate immense amount of damage to its intended target in one delivery. A nuclear weapon is considered a Weapon of Mass Destruction, and the possession of them has been a controversial topic for international politics since they were first put into service. There are two main types of nuclear weapons, atomic bombs and hydrogen bombs (also known as thermonuclear weapons).

Atomic bombs utilize the fission of highly radioactive materials such as highly enriched uranium (the U-235 isotope) and plutonium in order to generate a chain reaction that produces an explosion that not only causes mass infrastructural devastation but also intense heat and prolonged nuclear fallout and radiation.

On the other hand, hydrogen bombs utilize the nuclear fusion of hydrogen isotopes; however they rely on nuclear fission in order to start the process that will end up in a thermonuclear explosion. The radioactive materials of hydrogen bombs comes from the fission of depleted uranium (U-238 isotope) induced by the fusion of the hydrogen isotopes, taking into account that thermonuclear weapons are delivered in a multi-stage process. Thermonuclear weapons can be much more destructive than atomic weapons bearing in mind that they have no limit their potential yield. In fact the most powerful nuclear weapons ever tested was a 50 megaton (the equivalent to 50 million tons of TNT) hydrogen bomb in 1961.

The only nuclear weapons to have ever been used in actual conflict were delivered by the United States during the final months of the Second World War over Japanese territory. They were dropped over Hiroshima and Nagasaki killing more than 100,000 people, the first bomb yielded around 15 kilotons (equivalent to 15 thousand tons of TNT), the second yielded around 21 kilotons in explosive power.

### The issue to discuss

The first nation known to ever possess a nuclear weapon was the United States. In fact, the United States has been the only nation to have ever used a nuclear weapon in active conflict. However, shortly after the United States acquired a nuclear capability, the Soviet Union developed its own atomic bomb, and in that manner started the nuclear arms race that characterized the Cold War between the year of 1947 and 1991.

The United Kingdom, France and the People's Republic of China have also developed nuclear weapons, most of them during the 1960's. These five states are entitled by the Nuclear Non-Proliferation Treaty (NPT) of 1968 to have types of weapons, bearing in mind that they are the five permanent members of the United Nations Security Council.

However, they are not the only nations to have these types of weapons. Non signatory States of the NPT like India and Pakistan have openly acknowledged their possession of nuclear weapons. Furthermore, the Democratic People's Republic of Korea (North Korea) withdrew from the NPT in 2003 and shortly after admitted to possess nuclear weapons; thus defeating the purpose of the NPT to prevent the spread and further development of nuclear weapons.

Although the Comprehensive Nuclear Test Ban Treaty (CTBT) has not entered into force, North Korea has violated the clauses of this document bearing in mind the extensive nuclear testing that this nation has carried out during the last decade.

The other non-signatory State of the NPT is the State of Israel; however there is no prove that Israel has a nuclear capability although it is highly assumed. Fears over nuclear retaliation became quite intense during Operation Desert Storm in 1991 with the Iraqi invasion of Kuwait.

Nevertheless it is not all negative, and there is a clear precedent and proves that a nuclear State can disarm completely. This is the case of South Africa; a nation which started a nuclear program in the 70's acquired nuclear weapons in the 80's and disarmed completely in the 90's.

### The Objective

The objective of the 1540 Committee regarding this topic is to search for a way on how to avoid that non-signatory States of the NPT acquire further nuclear weapons technology. This must be done through diplomatic means, seeking political, economical and military strategies to stop these nations from acquiring such weapons. Furthermore the Committee must examine and apply strategies that will bring India, Pakistan and North Korea to nuclear disarmament and clarify Israel's nuclear situation.

The 1540 Committee must develop strategies to prevent signatory States of the NPT from withdrawing from such international agreement, all in the interest of international security and nuclear disarmament.

#### Key Terms

**Nuclear Fission:** It is the process in which the nucleus of an atom is split into various parts releasing energy in the process.

**Nuclear Fusion:** It is the inverse process of fission, through fusion the nuclei of various atoms join together to form heavier molecules and release energy as by-product.

**Nuclear yield:** The strength of a nuclear weapon

**Nuclear kiloton:** Unit used to measure the yield of a nuclear weapon; it is equivalent to one thousand tons of TNT

**Nuclear megaton:** Unit used to measure the yield of a nuclear weapon; it is equivalent to one million tons of TNT

**Nuclear Non Proliferation Treaty:** It is an international agreement signed in 1968 that searches to limit the spread of nuclear weapons. According to the treaty the only States that may possess nuclear weapons are the five permanent members of the United Nations Security Council (the United States, the Soviet Union (now Russia), France, the United Kingdom and the People's Republic of China).

**Comprehensive Nuclear Test Ban Treaty:** It is a treaty adopted by the United Nations General Assembly which prohibits nuclear testing for military purposes and explosion for both civilian and military purposes.

#### Further Reading:

BBC: [www.bbc.co.uk](http://www.bbc.co.uk)

United Nations Security Council: [www.un.org/Docs/sc/](http://www.un.org/Docs/sc/)

1540 Committee: [www.un.org/sc/1540/](http://www.un.org/sc/1540/)

Non Proliferation Treaty: [www.un.org/en/conf/npt/2005/npttreaty.html](http://www.un.org/en/conf/npt/2005/npttreaty.html)

Comprehensive Nuclear Test Ban Organisation: [www.ctbto.org/](http://www.ctbto.org/)

Nuclear Weapons: [www.nuclearweaponarchive.org/](http://www.nuclearweaponarchive.org/)

## Methods of containment for non-State parties to acquire “the know how” for developing weapons of mass destruction

### What is a Weapon of Mass Destruction?

A Weapon of Mass Destruction (WMD) is a weapon that can kill large numbers of humans and/or cause to infrastructure and nature as such. The political implications and definition of the term have evolved and been disputed, often signifying more politically than technically. Coined in reference to aerial bombing with chemical explosives, it has come to distinguish large-scale weaponry of other technologies, such as chemical, biological, radiological, or nuclear. This differentiates the term from more technical ones such as nuclear, biological and chemical weapons (NBC). Weapons of Mass Destruction started to be used during the 20<sup>th</sup> Century, especially during the First World War with the introduction of chemical weapons; however they were used in previous conflicts in a much lesser scale. Today Weapons of Mass Destruction represent not only a threat in an international conflict, but a larger one against an unknown enemy; an enemy which is of a non-State nature

### Evolution of use of the Weapons of Mass Destruction

During the Cold War, the term "weapons of mass destruction" was primarily a reference to nuclear weapons. At the time, as a necessary deterrent against nuclear or conventional attack from the Soviet Union, and the euphemism "strategic weapons" was used to refer to the American nuclear arsenal.

The end of the Cold War reduced U.S. reliance on nuclear weapons as a deterrent, causing it to shift its focus to disarmament and strengthening in conventional weaponry. This period coincided with an increasing threat to U.S. interests from Islamic nations and independent Islamic groups. With the 1990 invasion of Kuwait and 1991 Gulf War, Iraq's nuclear, biological, and chemical weapons programs became a particular concern of the first Bush Sr. Administration. Following the war, the Clinton Administration and other western politicians and media continued to use the term, usually in reference to ongoing attempts to dismantle Iraq's weapons programs.

After the September 11, 2001 attacks and the 2001 anthrax attacks, an increased fear of non-conventional (biological and chemical) weapons. This fear reached a crescendo with the 2002 Iraq disarmament crisis and the alleged existence of weapons of mass destruction in Iraq that became the primary justification for the 2003 invasion of Iraq. However, no WMD were found in Iraq.

### Weapons of Mass Destruction proliferation and access

The only country to have used a nuclear weapon in war is the United States, which dropped two atomic bombs on the Japanese cities of Hiroshima and Nagasaki during World War II. There are eight countries that have declared they possess nuclear weapons and are known to have tested a nuclear weapon, only five of which are members of the NPT. The eight are: People's Republic of China; France; India; Pakistan; Russia; the United Kingdom; the United States of America; and North Korea.

Israel is considered by most analysts to have nuclear weapons numbering in the low hundreds as well, but maintains an official policy of nuclear ambiguity, neither denying nor confirming its nuclear status.

Iran is suspected by western countries of seeking nuclear weapons, a claim that it denies. While the truth is unknown, the November 2007 NIE on Iran stated that Iran halted its nuclear weapons program in the fall of 2003.

### The Issue

Evidently, there is a series of non-State parties which are legally unable and restricted to have access to these types of weapons under international conventions, ratifying the appropriate use and manipulation of these ones. Nevertheless, these particular non State parties are obtaining illegitimate access to the same ones, and in behalf of the humanitarian stability, development, and prosperity, it is necessary to eliminate the imminent use and the irresponsible manipulation of this arsenal by these types of belligerent parties.

The WMD are not one specific type or variety of weapon, but instead a diverse and rather wide-ranging variety is consisting in: nuclear, biological and chemical (NBC). It is important to highlight the fact that specific protocols, treaties, conventions and agreements are stipulated according to the type of weapon and its corresponding usage, due to the risk they may exert if misused and thus the devastating consequences among a humanitarian society.

Regarding nuclear weapons, there are two main significant treaties: there is the Partial Test Ban Treaty, which restricted all nuclear testing to underground nuclear testing, to prevent contamination from nuclear fallout; and the Non Proliferation Treaty attempting to place restrictions on the types of activities which signatories could participate in, with the goal of allowing the transference of non-military nuclear technology to member countries without fear of proliferation.

Nuclear weapons have also been opposed by agreements between countries. Many nations have been declared Nuclear-Weapon-Free Zones, areas where nuclear weapons production and deployment are prohibited, through the use of treaties. The "Treaty of Tlatelolco" prohibited any production or deployment of nuclear weapons in Latin America and the Caribbean, and the "Treaty of Pelindaba" prohibits nuclear weapons in many African countries. As recently as 2006 a Central Asian Nuclear Weapon Free Zone was established amongst the former Soviet republics of Central Asia prohibiting nuclear weapons.

In the middle of 1996, the International Court of Justice, the highest judiciary element of the United Nations, issued an Advisory Opinion concerning the "Legality of the Threat or Use of Nuclear Weapons". The court ruled that the use or threat of use of nuclear weapons would violate various articles of international law, including the Geneva Conventions, the Hague Conventions, the UN Charter, and the Universal Declaration of Human Rights.

Concerning biological weapons, there is the Biological and Toxic Weapon Convention which banned the "development, production and stockpiling of microbes or their poisonous products except in amounts necessary for protective and peaceful research."; and the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare, usually called the Geneva Protocol, prohibiting the use of chemical and biological weapons, yet it doesn't restrict or control the production, storage or transfer aspects.

Nevertheless, even though there is existence for these determined types of weapons regarding management, control and use, there must be more enforced measurements adapted and assimilated in an international scale, that withstands and can enable the accurate management, restriction, use, or ban of NBC weapons, considering aspects like danger, destructive potential, and harm or threat to society and civilian population.

### The Objective

The objective and the appliance of this topic in the committee majorly relies on the instability that can be provoked in a worldwide scale by inadequacy and mismanagement of nuclear, biological and chemical weapons. Thus, there must be a more rigorous enforcement to prevent this type of harmful, threatening and dangerous arsenal, from being either misused, mismanaged, or misapplied. Examples of the mismanagement of these weapons are both the Sarin gas released in the Tokyo subway system in 1995, which killed 12 and caused more than 5000 persons to seek immediate medical attention; and the 2001 anthrax attacks, caused deliberately, were letters laced with infectious anthrax were delivered to news media offices and the U.S Congress, killing 5 individuals.

Hence, control mechanisms must be developed using diplomatic measurements entirely, the necessary radicalism and the appropriate measurements to prevent ongoing problematic and conflicts emerging as a result of misuse of illegal weaponry: an example of what needs to be procreated is what is denominated biosurveillance, were north American universities, throughout the 1990's decade, deployed automated bioterrorism detection system, called Real-Time Outbreak Disease Surveillance (RODS). RODS is designed to draw collect data from many data sources and use them to perform signal detection, that is, to detect the possible bioterrorism event at the earliest possible moment. RODS collect data from sources including clinic data, laboratory data, and data from over-the-counter drug sales.

The 1540 Committee must take into account all the information previously given, and combine it with devoted research in order to find a solution in order to prevent that non-State parties, as defined in Resolution 1540, from acquiring the knowledge, technology and capability of developing NBC weaponry and in such a case prevent them from delivering it.

Further Reading:

**UN Resolution 687 (1991):** <http://www.fas.org/news/un/iraq/sres/sres0687.htm>

**Weapons of Mass Destruction and International Law:** <http://www.asil.org/insigh97.cfm>

**Non-Proliferation Under Security Council Resolution 1540:**

<http://www.globelaw.com/Nukes/NonProliferation/NonProlif%20Res%201540.htm>

**The Effects of Nuclear Weapons :** These tables describe the effects of various nuclear blast sizes. All figures are for 15 mph (13 kn; 24 km/h) winds. Thermal burns represent injuries to an unprotected person. The legend describes the data : [http://www.bomb-shelter.net/index.php?option=com\\_content&view=article&id=55&Itemid=65](http://www.bomb-shelter.net/index.php?option=com_content&view=article&id=55&Itemid=65)

**The Effects of Biological Weapons :** The types of organisms used in biological weapons and how they can be destroyed: [http://www.bomb-shelter.net/index.php?option=com\\_content&view=article&id=54&Itemid=66](http://www.bomb-shelter.net/index.php?option=com_content&view=article&id=54&Itemid=66)

**The Effect of Chemical Weapons :** [http://www.bomb-shelter.net/index.php?option=com\\_content&view=article&id=53&Itemid=67](http://www.bomb-shelter.net/index.php?option=com_content&view=article&id=53&Itemid=67)