Introduction

Whether it was the Champs Elysees attack in Paris, the Berlin Christmas market attack or the Barcelona attack, it’s fair to say that we are all in agreement when it is said that the threat that terror groups pose today is certainly immense, and following the recent onsloughts, looks only to continue to grow. As such it is in the international community’s best interest to find solutions to tackle the growing problem.

Meanwhile, the topic of weapons of mass destruction (WMDs) looms like a dark cloud for people around the world, even for those who have never even seen the images of Hiroshima and Nagasaki. Stockpiles remain untouched and ready, during which, some countries are only just beginning to build arsenals of their own. What's more worrying is that terrorist networks are now known to be developing the capacity for the assembly and deployment of weapons of mass destruction.

Combining these two factors and it seems to produce a recipe for imminent disaster. It is no secret that terrorist organizations have in the past stated their intentions of developing or obtaining weapons of mass destruction, specifically, nuclear weapons. Previously, Osama bin Laden, the founder of Al-Qaeda, has stated himself that al-Qaeda views the acquisition of nuclear weapons and WMDs as a “religious duty”. Due to their possession of sufficient finances, backing and resources, it doesn't seem implausible to suggest that a dominant terrorist organization could launch a nuclear attack of their own. Especially seeing as they are constantly recruiting scientists to conduct research and assemble weapons of mass destruction. On the contrary, groups such as Al-Qaeda and ISIS have begun to become a larger threat to many countries as they become more and more capable of conducting large-scale nuclear attacks, a theory that EU and NATO chiefs reaffirmed in April 2016 by releasing a warning stating that ISIS was planning to carry out nuclear attacks on the UK and Europe.

When it comes to obtaining the materials and resources for creating a weapon of mass destruction, or simply buying a weapon of mass destruction, there are a few options that have been used
by terrorist organizations. Recently, terrorists have begun to use the Dark Web to look for tools which can assemble and launch weapons of mass destruction. This new, innovative method is seen as highly attractive as it provides the users and sellers anonymity whilst also being untraceable. The more common method for acquiring weapons of mass destruction, would be through the Black Market, an area in which both governments and the UN have looked into extensively in order to provide feasible solutions, however due to the fact that the black market is so undocumented and hard to track, success in that field has been relatively minimal.

While there are numeral barriers that terrorist groups must overcome, such as obtaining a large enough quantity of radioactive material to actually build a device big enough to be classified as a nuclear warhead, weapons such as dirty bombs and chemical weapons are an immediate threat needed to be dealt with. In addition, a growing number of emerging innovations and technologies could make this hurdle easier to cross.

Definition of Key Terms

**Weapons of mass destruction (WMDs)**

A weapon of mass destruction is a weapon that can bring about damage on an enormous scale, killing or bringing significant harm to large population whilst also greatly damaging man-made structures or the environment. These weapons are nuclear, chemical, biological or radiological.

**Intercontinental Ballistic Missile (ICBM)**

Developed in Nazi Germany during World War II, ICBMs are guided ballistic missiles with a range of affect beginning at 5,500 kilometers. Usually used a shell for carrying nuclear arms, they can also be used to deliver weapons of chemical, conventional and biological weapons with varying degrees of success.

**Submarine-launched Ballistic Missile (SLBM)**

With the initial design developed by Nazi Germany, SLBMs share great similarities with ICBMs. With a similar range of over 5,500 kilometers, their versatile nature allows for a greater range of use than ICBMs.

**Terrorism**

The unlawful carrying out of violence and intimidation, notably against civilians, in the pursuit of a political agenda, or with the aim to spread fear among a population.
Terror groups / Terrorists

Individuals or groups of individuals, who carry out acts of terrorism, in the name of a cause or a group. Often these individuals are found to be affiliated to certain groups, who can go on to form global networks on terror groups, with thousands of affiliates/members.

Black market

The illegal sale of goods that are not permitted to be bought or sold or that are in short supply. Goods on the black market are usually demerit or harmful goods, such as radioactive material, WMDs, guns or drugs.

Non-Proliferation treaty (NPT)

Is a treaty which aims to stop the spread of nuclear weapons and weapons technology, whilst also promoting the benefits of nuclear energy.

Radiological dispersal devices (RDD) / Dirty bombs

A weapon made of radioactive material mixed with conventional explosives. Designed to use explosive force to spread the radioactive material across a large distance.

Background Information

Taking the following terrorist attacks into consideration, the 1995 nerve gas attack in a subway in Tokyo and the bombing of a federal government office building in Oklahoma City in the same year, among many more, it is clear to see that the previous belief which inferred that terrorist were more interested in generating publicity rather than killing, may no longer be fully true. This is because an increased number of terrorist organizations are considered as close to entering the domain of using weapons of mass destruction, or simply inflicting a larger number of casualties. Ever since the unfortunate events of 9/11, the concern for terrorist attacks, especially those with mass casualties (such as 9/11) has increased rapidly in the light of the wave of recent terrorist attacks in the West. And with all that comes the added fear of the possibility of weapons of mass destruction being used employed in the attacks. A possibility which many experts claim to be inching closer to reality. One of whom, Dr. Jessica Stern, believes they understand the recent threats of a new form of terrorism and why exactly it is coming about. She cites the following reasons as evidence:
Terrorists with different motivational factors, such as religious ideologies. These terrorist are no longer constrained by traditional ethics or bowing out to political pressure. There is a quote from a Saudi jihadi explaining when the use of WMDs would be permissible, showing us the change in attitude or ideology of certain terrorist groups. More extremist views are taken aboard, furthering the group’s ideologies away from the tradition, conventional beliefs of Islam.

After the Cold War ended, and the Soviet Union was dissolved, many of the components and equipment used for nuclear, biological and chemical weapons, were found on the black market, making it easy for terrorist buyers to acquire said components to begin assembly on their own weapons of mass destruction. Furthermore, the dissolution of the Soviet Union, rendered many Soviet scientists desperately in need of employment, giving the terrorist groups a source of expertise from which to draw.

The development of the internet, and more specifically the dark web, has made information related to weapon design and assembly or poison manuals, much more readily accessible to terrorist groups.

Furthermore, a successful weapons of mass destruction attack in the west would greatly contribute to the culture of terror these groups wish to spread.

However on the other side of the spectrum, there has been scepticism on the topic of a possible WMD attack in the West. Apart from some crude and simple occurrences, the conventional belief of terrorists being able to acquire and assemble weapons of mass destruction has been largely aspirational. Having said that, the recent use of mustard gas by ISIS discussed later on, coupled with its recruitment of highly technically trained experts, including those from the West, is a testament to the more serious efforts shown by the group regarding chemical weapons development. As a result, it is clear to see that although at the currently, an attack using any form of WMDs on the West may be a unlikely, the efforts put in by groups such as ISIS certainly indicate that it is not so far into the future as some may believe.

**Biological terrorism**

Biological warfare, also known as germ warfare, is the use of biological organisms, be it through toxins or infectious agents, to bring harm to humans or any other living organism. The organisms used are most commonly bacteria, fungi or viruses. Due to the random predictability of living organisms, biological weapons are challenging to restrain, could potentially create havoc on a global stage, and therefore strictly prohibited globally under numerous treaties. Seeing as they are so effective when weaponised, it is no surprise to learn that biological warfare has been at play for centuries. When a city was under siege, the attackers would hurl over dead bodies which have been infected with the plague, in order to spread the disease through the city, killing it from within. This just shows the terrifying potential
that biological terrorism could have when employed on a mass scale using modern technology. The implications of an attack in a densely populated area, such as a metropolitan city, would be catastrophic.

The actual attack could be undertaken in many ways; via aerosol sprays, dispersed through an explosive devices, contamination of food and water or the absorption or injection of the agent through the skin. Looking back, it is easy to understand why such a weapon would be highly attractive for terrorist groups, seeing as they are terrifyingly effective, despite the simplicity, and even more importantly, the low cost of production in comparison to for example the assembling and deploying of a missile. There is no doubt that terrorist organizations are looking into biological weapons as according to Organisation for the Prohibition of Chemical Weapons Chemical Destruction Data, a laptop found by Syrian rebels in 2014 during a raid on an ISIS stronghold which apparently contained information instructing ISIS on the assembly and deployment of biological weapons. In addition, safety precautions for the development of microbes to protect ISIS technicians from infection was also found on the laptop.

One example of an organism experts believe could be used in an attack is the bacteria anthrax, as it is commonly found in nature, easily generated in a laboratory whilst also surviving for a long duration of time. In fact, in 2001, anthrax was sent, as pores, through the United States postal service, infecting 22 people, 5 of whom were killed.

Due to the obvious danger and implications these weapons pose, it is no surprise that there has been attempts on the international level, banning the use, stockpiling and production of biological weapons. The Biological Weapons Convention (BWC), was the first multilateral disarmament treaty which banned the development, production and stockpiling of biological weapons. It opened for signatures on 10 April 1972 and was entered into effect on 26 March 1975.

Although the BWC is a good step forward, there have been several issues with it. One being that although 177 states have signed on to it, there remains 19 states who have no obligation to comply with the terms laid out by the BWC, and getting them to sign on to the convention has been a big challenge. Furthermore, regular compliance checks to the BWC can be carried out on a national level, whereas most disarmament conventions require international oversight. As such there has been a lack of data, as well as scattered instances of violations. Lastly, the BWC itself has been seen to lack organization as well as funding, with meetings being infrequent and the BWC being understaffed. Therefore, demand for an improved or revised format of the BWC has been seen.

Nuclear terrorism

Out of all the available WMD, the prospect of a nuclear attack is seen to be the one with the highest death toll, and most dire consequences. With a nuclear attack, it isn't only the immediate impact that we would need to be taken into account. The nuclear fallout would plague the area, rendering the
land uninhabitable and the soil infertile due to the radiation. As such it is highly important to ensure that
terrorist do not launch any nuclear attacks.

Having said that, on the other hand, a nuclear attack is also the least likely WMD to be used due
to the difficulty in obtaining or assembling the weapon. The terrorist group would firstly have to acquire a
sufficient mass of nuclear material. They would then have to require the necessary experts to assemble
and produce the weapon. In the case of Middle-Eastern terrorist groups, due to the recent instability and
fighting in the area, a shortage of scientist and other experts in the region has been observed, forcing
groups to start recruiting from the West, which can be a much riskier proposition. However even if they
were to have managed to get all the necessary components, regular tests and investigations would need
to take place, in order to see if the weapon would actually detonate when used. Such tests would be
easily picked up by intelligence agencies.

As a result, the most likely proposition would have to be buying a nuclear weapon straight off the
black market, and given the revenue that groups such as ISIS have from the sale of oil gases, the
proposition does not seem to far fetched.

Although the prospect of a nuclear attack seems unlikely, the use of dirty bombs is a more
immediate threat. Regarded as the dispersal of radioactive materials through an explosion, dirty bombs
require a smaller quantity of fissile material, compared to nuclear warheads, hence are a more
economically viable and realistic method of attack for terrorist groups. Having said that, Dirty bombs are
technically not WMDs, rather they are “Weapons of Mass Disruption”; Weapons which do not cause as
much damage as weapons of mass destruction, but instead, cause chaos or additional trouble for the
victims.

**Chemical Terrorism**

The use of chemical weapons is the most likely scenario for terrorists, due to the various
advantages it holds over the over weapons of mass destruction. For example, mustard gas is known to
be an excellent agent owing to its low costs and simplicity of production, predictable outcomes,
persistence, and ability to cause casualties rather than deaths which will go on to deplete the resources
of the enemies.

There have already been several documented instances of chemical weapons being used by
terrorist groups, most commonly in Syria and Iraq. In August 2015, according to an investigation
authorised by the United Nations, the Islamic State used mustard gas on civilians in a town called Marea,
located in Syria. Furthermore, in light of recent reports, it is believed that terrorist groups such as the
Islamic State are beginning to develop chemical weapon programs, with a grave concern being that
these groups have acquired these weapons from abandoned or undeclared Syrian Government stockpiles.

A major contributor in the fight against chemical weapons is of course the OPCW (Organization for the Prohibition of Chemical Weapons), whose recent successes include forcing then Assad regime to hand in all of its chemical weapon stock, following reports in 2013 that the Syrian regime were utilising chemical munitions against rebel forces. As reported by the OPCW, the regime turned over 1,308,021 Kg of chemicals, 98.8% of which was destroyed. However, on the other hand, there is only so much that an organization such as the OPCW can do against non-state violators of the Chemical Weapons Convention, as unlike the Syrian government, terrorist groups do not respond in the same way to international pressure.

**Major Countries and Organizations Involved**

**Russia**

Russia plays a crucial role in preventing WMDs from falling into the hands of terrorists, and has the resources necessary to build WMDs, along with close relations to countries in the Middle East who have links to terrorist groups. Moreover, Russia, with the aid of the USA, has started up an initiative known as The Global Initiative to Combat Nuclear Terrorism. This initiative was conceptualised in 2006, and now has 86 member states involved. It is working to reach a stage where it can effectively respond to, prevent, and detect nuclear terrorism with strength. This proves that Russia is outwardly against the idea of nuclear terrorism. Furthermore, during the 2002 Summit, on the 27th of June, It was agreed that the attending nations (G-7 plus Russia) would put in a total of $10 billion to help Russia to eradicate its stockpile of WMDs. The fact that Russia agreed to this further proves that Russia will be playing a key role in preventing terrorists from acquiring WMDs.

**United States of America**

As the initial pioneer in the creation of WMDs and recognised by the NPT, the United States is considered one of the most pivotal in the role in the security of WMDs. With over 1,000 detonations, they are reported to own even more ICBMs and SLBMs than Russia. Furthermore there is clear intent from the United States' behalf, given the Strategic Offensive Reductions Treaty, which stated both the USA and Russia had to reduce their nuclear stockpiles. While the United States cannot work on preventing this issue by themselves, their leadership and resources are necessary to construct and implement viable solutions.
GICNT (Global Initiative to Combat Nuclear Terrorism)

As mentioned earlier in this section, the GICNT is an initiative started by Russia and the USA, that now has 88 members, and hopes to combat the foreboding threat of nuclear proliferation. The GICNT have a Statement of Principles (SOP) which all member nations commit to. The SOP are nuclear security goals which encompass a broad range objectives regarding deterrence, prevention, detection and response. What the GICNT actually does, is bring about awareness, promote education and information sharing and sharing or adopting the best practices for member nations to carry out.

IAEA (International Atomic Energy Agency)

When it comes to the IAEA, in terms of WMDs, it is more so focused on the radiological or nuclear aspect of WMDs. The IAEA aims and objectives are to assists its Member States, in in the usage of nuclear science and technology strictly for numerous peaceful purposes. They also produce nuclear safety standards as well as ensuring that there are no violations to the Non-Proliferation Treaty (NPT), through their inspection system.

Regarding the threat of nuclear terrorism, the IAEA plays a big part in nuclear security. They install radiation monitors at borders and border crossings, advise on improved physical protection of nuclear facilities as well as provide training and equipment to relevant personnel on identifying and intercepting any illicit trafficking of nuclear or radioactive materials. The IAEA also brought about the Convention on the Physical Protection of Nuclear Material, which is the only international legally binding framework put in place for the physical protection of nuclear material. It brings about further cooperation between member states in the case of rapid measures to pinpoint and retrieve stolen or smuggled nuclear material. All of which can be useful in the fight against black market sellers.

UNODA (United Nations Office for Disarmament Affairs)

The UNODA is a major player in the fight against weapons of mass destruction and disarmament in general. Through collaborative work with the General Assembly, Disarmament Commission and several other bodies, the UNODA brings out about support and organization in the area of disarmament. It provides member states, intergovernmental institutions and other organizations with unbiased, accurate information and advice in regarding the field of disarmament.

In regards to WMDs, the UNODA were instrumental in the implementation of Resolution 1540, which states that member states should not provide any support to non-State actors who are attempting to use WMDs for terrorist purposes, by introducing or enforcing new laws. The UNODA plays a big role in supporting this resolution, making sure that the terms are not violated, whilst also always looking for improvements. It does this through activities which focus on aspects related to Resolution 1540.
Moldova

When it comes to black market acquisitions of nuclear material, Moldova is known to have one of the largest black markets selling nuclear materials. As such, it is no surprise that many Middle-Eastern terrorist organizations procure their radioactive sources from Moldova. Due to the fact that Moldova was formerly part of the Soviet Union, after the breakup of the Soviet Union many of the Republic’s nuclear materials were dispersed across the area. Hence, black market systems emerged, selling these nuclear materials to willing buyers. Despite all this, the Republic of Moldova has not made any strides to shut down any of their black markets, or to infiltrate the sellers.

Al Qaeda

Over the past years leading up to his death, Al Qaeda leader, Osama bin Ladin has made several statements, showcasing and explaining his intent on using WMDs against the western powers. However Osama Bin Ladin and therefore Al Qaeda’s aim is more so concentrated on the acquisition of WMDs such as nuclear weapons, which will be able to inflict mass casualties and cause international panic and havoc, rather than using a more efficient and effective strategy such as the deployment of more readily available forms of WMDs such as dirty bombs or chemical weapons such as mustard gas.

Relevant UN Treaties and Events

- Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction (Report of the Secretary-General), 16 July 2009 (A/64/140)
- Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction (Report of the Secretary-General), 1 July 2010 (A/65/99)
- Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction (Report of the Secretary-General), 10 July 2012 (A/67/135)
- Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction (Report of the Secretary-General), 19 July 2013 (A/68/164)
- Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction (Report of the Secretary-General), 16 July 2014 (A/69/138)
- Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction (Report of the Secretary-General), 8 July 2016 (A/71/122)
• Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction, 12 December 2017 (A/RES/72/42)

Previous Attempts to solve the Issue

Being one of the most prevalent unsolved issue of our time, the United Nations has worked tirelessly for decades to bring an end to the use of WMDs by terrorist groups. With multiple resolutions on the matter at hand, the UN has also continued to update these documents (as seen by the Security Council resolution 2370) dependent on the circumstances at the time. Furthermore, the previously mentioned Resolution 1540, is an excellent starting place in the fight against terrorists acquiring WMDs. Although there had been numerous resolution which addressed the issue of WMDs in the context of member states, resolution 1540 was the first time the UN had focused it on non-state actors such as terrorists, and how to prevent them from acquiring WMDs. In addition, an advantage to resolution 1540, unlike previous treaties or conventions, is that due to the fact that it was passed through the Security Council, all members of the UN were obligated to uphold it, hence making it a global initiative. On the other hand because all member states had to adopt the resolution, there was some push back, as some states, who were not invested or relevant in the non proliferation of WMDs, believed that it was an unnecessary drain on resources which could have been used for issues directly affecting the local nation.

Another framework that was established was the Nuclear Security Summit, which ran from in 2010, 2012 and 2014. The initiative’s goal was to come up with solutions which will focus on minimizing the threat of nuclear terrorism. Areas of focus included securing weapons or nuclear materials in civilian areas and improving cooperation between nations to battle the illicit trafficking of fissile materials through the black market and dark web. However, due to the fact that it was merely a summit, action was not always followed up on, and hence the summit sometimes acted as a meeting to discuss and share views and solutions on the issue without actual implementation.

Lastly, another framework which have made progress against the issue at hand is the UNCTITF (United Nations Counter-Terrorism Implementation Task Force). The UNCTITF have developed a mandate which seeks to make progress in all areas concerning disarmament of terrorist groups. Once again they are looking to strengthen collaborations between nations to fight against illicit trafficking. Furthermore, they are also looking at the other side of the spectrum, working alongside the World Health Organization in looking at how to prepare and respond to different forms of WMD attacks, especially in areas with unsatisfactory health systems.
Possible Solutions

Firstly, prevention should be at the top of the agenda, as it will decrease the likelihood of an attack. Member nations could invest heavily in research and attempting to upgrade physical facilities with a particular onus placed on the security of the material. This could include improved alarm system, hiring more security personnel or a change to the structural security of the building. They could also have organizations which can provide and ensure that the relevant personnel are receiving top quality training when it comes to protection of physical facilities housing the material. This can be done in conjunction with other organizations or member nations. Governments should also ensure that any old facilities, be it abandoned or undeclared have been secured and are not vulnerable to attacks from any terrorist organizations, or ensuring that these locations have been cleared of any materials that the terrorist groups may be looking for. Furthermore, increased border security must be observed to prevent the illicit trafficking of any materials.

On top of strengthened border control, the issue of black market sellers must also be addressed. The formation of a body which can oversee the crackdown on black markets across the globe could be beneficial. This organization could work alongside other intelligence agencies, sharing information which could be beneficial in the capture of suspicious sellers and buyers. In addition, the organization could also focus on the retrieval of materials and how to secure them, whilst also consulting with relevant agencies such as the IAEA on how to deal with the radioactive material.

Ensuring that there is a framework or initiative in place to form a coordinated response to a terrorist attack using a weapon of mass destruction is vital. This includes making sure that it covers the whole scope of a response task force, including relief and support, as well as future development. The framework could also host annual conferences or summits which will also help improve and foster healthier more productive relationships between nations. Improved cooperation will lead to a greater sharing of information and technology thus a wealth of new solutions. For example, improved surveillance sharing between nations could lead to greater knowledge about the whereabouts and operations of the terrorist groups, whilst new technologies could aid LEDCs which are involved greatly, without having them to drain their own resources. Countries located in the horn of Africa such as Ethiopia and Djibouti can benefit greatly from a shared surveillance system in order to better coordinate themselves, both in prevention and response. New technologies can aid them in coming up with new innovative ways to address the issue.

Bibliography


“The Islamic State and WMD: Assessing the Future Threat – Combating Terrorism Center at West Point.” Combating Terrorism Center at West Point, 15 Nov. 2017, ctc.usma.edu/the-islamic-state-and-wmd-assessing-the-future-threat/.


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**Appendix or Appendices**


*This website is useful as it provides a greater insight into the UN’s counter terrorism strategy.*

II. [https://www.globalsecurity.org/wmd/intro/cw.htm](https://www.globalsecurity.org/wmd/intro/cw.htm) (Global Security)
This Website is beneficial as it gives more information on Chemical Weapons.

III. https://www.opcw.org/about-us/mission  (OPCW)

This website will give the delegates extra information regarding the OPCW.

IV. http://www.gicnt.org  (GICNT)

This website is helpful as it will provide the delegates with further reading into the operations and goals of the GICNT.

V. https://www.iaea.org/about/mission  (IAEA)

This website is a definite read given that it is excellent further reading into the operations and goals of the IAEA.