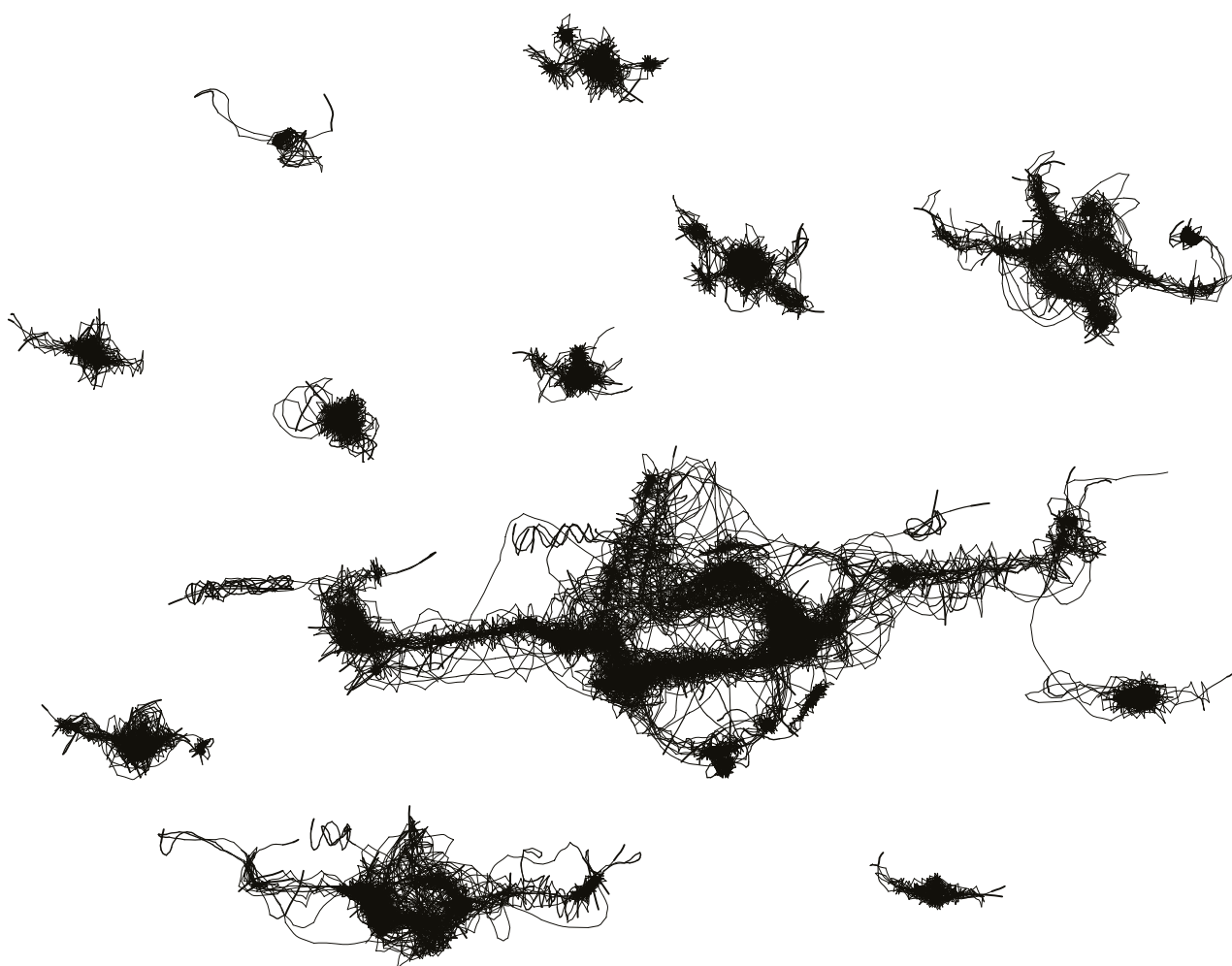


FUTURE OF ARMS



FUTURE OF ARMS

About Us

The Joint Public Issues Team (JPIT) is a partnership between the Baptist Union of Great Britain, the Methodist Church and the United Reformed Church. JPIT supports these partners in discernment, speech and action on issues of peace and justice, providing resources to church members and collaborating with a range of other partners.



FUTURE OF ARMS

Our Purpose

Advances in weapons technology are opening up new domains of conflict and raising new questions of ethics. Through these resources, the Baptist Union of Great Britain, the Methodist Church and the United Reformed Church are inviting a conversation about the implications for society of current developments in weapons technology. This initial set of resources examines themes including the distinction between cyberwar and conventional war, the danger of the weaponisation of outer space, and the development of military robots, and raises questions about how such developments should be controlled, regulated, deployed and challenged. We hope that these resources will spark conversations over the coming months and years and equip individual Christians and our churches to engage in discussion and advocacy with decision-makers about these vital issues, as we seek to fulfill the Christian vocation to be peacemakers.

Each briefing provides an outline of key technological developments and a perspective on ethical concerns. This is followed by a theological reflection on each topic.



Contents

Preface	5
Autonomous weapons	7
Reflection: "Put your sword back into its place..." <i>Prof Esther Reed</i>	13
No limits in space?	16
Reflection: Restoring right relationship and maintaining balance <i>Dr Madeleine Pennington</i>	22
Cyber-attacks versus cyber war	24
Reflection: Offensive Cyber Operations and principles of justice <i>Revd Steve Faber</i>	30
Money, profit, power and the global arms race	33
Reflection: Human rights and the arms trade <i>Revd Dr Helen Paynter</i>	40

Preface

Fifty years ago, a reasonably capable computer would fill an entire room. Now 98 per cent of the British public carry around a device with equivalent or greater capability in their pockets. We have embraced and adapted to the information age. Technological progress continues apace, most recently with the advent of Artificial Intelligence (AI) offering society many benefits and helping us to reimagine our future. Technological advancement tends to both shape and be shaped by the social environment in which it is nurtured.

Technology is also helping to reshape the battlespace of tomorrow to such an extent that it is changing the way that we think about war. National militaries are threatening to subsume cyberspace and outer space into new realms of conflict. From cyber-spies that can track your communications, to drones that can follow you based on your mobile phone signal, to robots armed with lasers, the future of arms is unsettling. These are not distant developments; in many cases the technology is already available. How are governments and non-state actors beginning to make use of it, and can appropriate constraints and controls be agreed?

The UK aspires to become a 'technology superpower'.¹ Yet with great power comes great responsibility. When governments discuss these issues in international forums they often fail to 'do ethics' very well or at all. But people do. Many will question the ever-increasing sums of money that competing powers spend to develop new weapons, diverting much needed financial resource from solving common problems. Are we made any safer? We need to ask questions that have not needed to be asked before. How do we control decision-making by machines? What should the rules be for competition in space? By examining such questions, we increase our awareness and begin to contribute to change. Some of the most significant leaps forward in arms control in recent years have come about through citizens demanding action.

These resources are also a call to action. We urge the convening of a fourth Special Session on Disarmament by the United Nations General Assembly in order to overcome deadlock in international forums. Our Churches encourage the UK Government to use its influence to bring diplomats together to fix the dysfunctional disarmament machinery. We do so with due humility recognising that we do not have all of the answers, but with the conviction that, in spite of tensions and competition in the world, our common future remains in our hands.

Steve Hucklesby

Policy Adviser

The Joint Public Issues Team



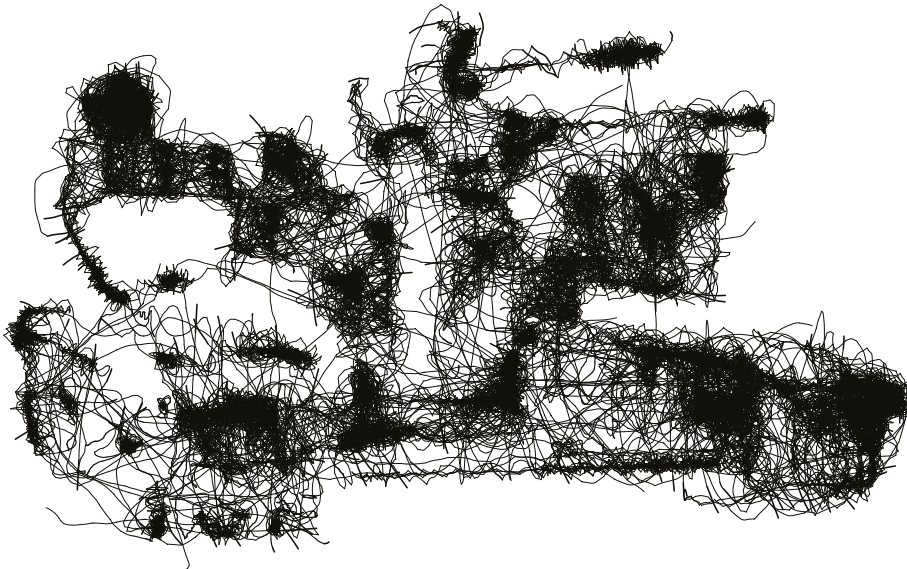
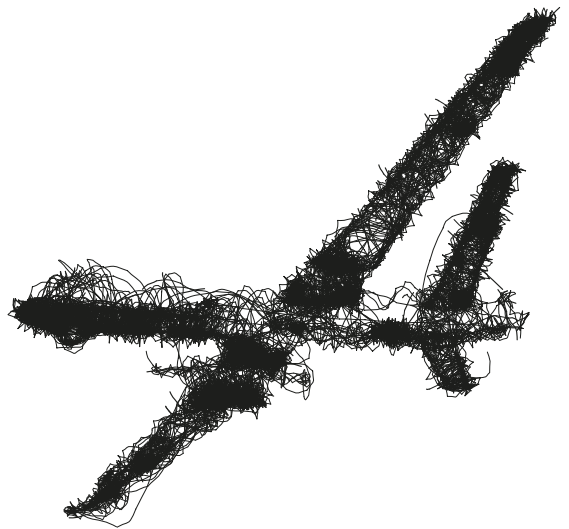
Acknowledgements

Our grateful thanks go to Steve Faber, Nathan McGuire, Ryan McMahon, Murdo Macdonald, Elizabeth Minor, Helen Paynter, Madeleine Pennington, Esther Reed, Eva-Nour Repussard, Sienna Sexton, Annie Sharples and Chris Spedding for their help in various ways.

Responsibility for the contents of this briefing lies solely with the Joint Public Issues Team.

¹ HMG, (March 2021), *Global Britain in a competitive age: The Integrated Review of Security, Defence, Development and Foreign Policy*

FUTURE OF ARMS



AUTONOMOUS WEAPONS

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Autonomous weapons

“A robot may not injure a human being or, through inaction, allow a human being to come to harm.”

Isaac Asimov, first rule of robotics, I, Robot, 1950

Technology Overview

One does not have to look hard to find depictions of ‘killer robots’ across popular culture – Arnold Schwarzenegger’s iconic portrayal of the Terminator, hives of miniature lethal drones that can recognise faces in Charlie Brooker’s *Black Mirror*, armies of marching Cybermen in *Doctor Who*. While these characterisations are sensational, they communicate an aspect of modern conflict that is grounded in reality. At least 30 countries are actively developing autonomous technologies and the sophistication of the technology is advancing.¹ One visible example of this is the development of self-driving cars. The same technology – sensors and information processing – used in autonomous vehicles will have applications for autonomous weapons.

Autonomous weapons - a definition

The International Committee of the Red Cross defines autonomous weapons as “any weapon system with autonomy in its critical functions – that is, a weapon system that can select (search for, detect, identify and track) and attack (use force against, neutralize, damage or destroy) targets without human intervention.”² This definition covers some existing weaponry, as well as weaponry in development and hypothetical future weaponry.³

¹ P Scharre, M Horowitz (2015), *An Introduction to Autonomy in Weapons Systems*, Center for a New American Security

² ICRC (2016), [Views of the ICRC on Autonomous Weapons Systems](#)

³ Mariarosaria Taddeo and Alexander Blanchard expose the significant variations in the definitions used by different organisations (for example ICRC and NATO) in M Taddeo and A Blanchard (2021), [‘A Comparative Analysis of the Definitions of Autonomous Weapons Systems’](#)

FUTURE OF ARMS

The incentives for development of remotely operated and autonomous weapons systems

Currently, the British military uses and continues to develop several forms of remote military technology. The UK's aerial drones are currently operator controlled and have been used extensively in Afghanistan (2007-2014). They were also deployed to Syria in 2015, a country with which the UK was not at war at the time, and used to carry out strikes on two British nationals. This technology is significant because its remote aspect provides the ability to strike targets without putting British troops at risk. However, the UK Government re-stated in 2019 that it has no plans to develop fully autonomous systems.⁴ It states that future systems will remain under human control as an absolute guarantee of human oversight, authority and accountability.⁵

Unmanned, remotely operated systems, have the capacity to expand military flexibility and reduce the reliance on personnel. For instance, the US Department of Defense *Unmanned Systems Roadmap: 2007-2032* argued that unmanned systems are better suited than humans for “dull, dirty, or dangerous missions”.⁶ This includes missions that are especially time-consuming or would expose individuals to harmful substances or where there is significant threat-to-life. In such instances, the ability to use unmanned systems could be seen as increasing efficiency as well as safety.

While remotely operated systems may be less controversial, it is important to understand the attraction of going further with the development of fully autonomous weapons systems. The weakest link in a remotely operated aerial drone is the communication link with the drone operator, which can be easily jammed with advances in electronic warfare. If a British Reaper drone costing millions of pounds has its satellite link jammed, that is the end of its mission. It will switch into autonomous mode so that it can fly itself back to its base. Therefore, there is a big incentive for a state, and indeed a drone manufacturer, to realise a return on investment by ensuring that when the opposing forces have electronic warfare capabilities,⁷ our assets can nevertheless complete missions reliably and accurately without human contact.

⁴ MoD UK, (2019), *Joint Doctrine Note 0-30.2 Unmanned Aircraft Systems*, London, p.14, [JDP 0-30.2. Unmanned Aircraft Systems \(Change 1\)](#) accessed 29/01/2024

⁵ Ibid, p.43

⁶ J Clapper et al. (2007), *Unmanned Systems Roadmap: 2007-2032*, Department of Defense, p.19

⁷ ie the capacity to jam the signal of the drone to its operator

FUTURE OF ARMS

Who is developing autonomous weapons?

Foreign Policy Magazine reported in May 2022 that “Israel, Russia, South Korea, and Turkey have reportedly deployed weapons with autonomous capabilities—though whether this mode was active is disputed.⁸ Australia, Britain, China, and the United States are investing heavily in developing Lethal Autonomous Weapons Systems (LAWS) with an ever-expanding range of sizes and capabilities.”⁹

The future might be a world in which some warfare is less reliant on direct kinetic combat between human soldiers and a greater prevalence of remote and autonomous technology with significant decision-making capacities. Politicians and military seek to reassure the UK public that fully autonomous killer robots are a long way off and that the UK is not currently contemplating their development and use. Yet the technological capability for fully autonomous killing machines is not far-off science fiction, but an emerging reality. In the absence of an international consensus on what is acceptable, it could arrive even more rapidly.

Ethical Concerns

Objections to autonomous weapons

A fully autonomous weapon system identifies and strikes at its target without direct human control. The human combatant delegates some decision-making to a piece of technology. This raises serious ethical questions around delegated responsibility and accountability. Opposition to autonomous weapons has come from far and wide from academics, policymakers and international organisations alike. In 2013, the Campaign to Stop Killer

⁸ The respective weapons systems are as follows: Israel – Harpy; Russia KUB-BLA and Lancet drones; South Korea – SGR A-1 gun turret; Turkey – STM Kargu-2.

⁹ R Trager, L Luca (2022), ‘Killer Robots Are Here—and We Need to Regulate Them’, *Foreign Policy Magazine*, foreignpolicy.com/2022/05/11/killer-robots-lethal-autonomous-weapons-systems-ukraine-libya-regulation/, accessed 22/07/2022.

FUTURE OF ARMS

Robots was launched by a coalition of non-governmental organisations. In 2016, the Future of Life Institute circulated an open letter signed by over 3,000 robotics and artificial-intelligence researchers. The letter warned of developments in autonomous weaponry as a “third revolution in warfare, after gunpowder and nuclear arms.”¹⁰ In 2018, UN Secretary-General António Guterres called for a ban on autonomous weapons, describing them as “morally repugnant”.¹¹

Problems with accountability

While it is important not to allow ourselves to stray into the world of science fiction, it is worth exploring a brief hypothetical to explore the ethical challenges that are brought about by genuinely autonomous weapons:

Country A has developed a genuinely autonomous weapon assisted by AI machine learning, capable of identifying, tracking and launching a strike on specific targets. Country A’s lethal autonomous weapon identifies a group of insurgents in a conflict zone and launches a lethal attack. It later transpires that the group were actually journalists and their tripods and cameras mistaken for weapons.

In this scenario, where does the responsibility for the accidental death lie? It is possible, on some level, to dilute the accountability of Country A’s military forces. Country A can claim that the weapon was carrying out a legitimate military operation, the results of which were unforeseeable and unintended. Perhaps Country A would admit the deaths were regrettable, but there is a lack of specific responsibility. The engineers who designed the weapon had not foreseen such an event, so to label them as personally responsible is potentially unreasonable. Does responsibility then lie with the military personnel, the national government, or with the weapon and its creators?

It is clear that international conflict is dependent on some predictable and ascribable concept of responsibility, such that those deploying weapons should be able to explain the weapon’s behaviour in every instance. Neil Davison of the International Committee of

¹⁰ Future of Life (2015), ‘Autonomous Weapons: An Open Letter from AI [Artificial Intelligence] & Robotics Researchers’, Future of Life Institute website, armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/May-June-2017/Pros-and-Cons-of-Autonomous-Weapons-Systems/, accessed 22/07/2022.

¹¹ un.org/sg/en/content/sg/speeches/2018-11-05/remarks-web-summit

FUTURE OF ARMS

the Red Cross argues that International Humanitarian Law is predicated on the notion that human subjects are responsible for complying with international law when carrying out attacks, and must be held accountable for violations.¹² Therefore, any ethical framework that engages with autonomous weapons and retains existing principles in international law must, at a minimum, require direct control over the actions of the weapon to provide a meaningful relationship between the intentions of the user of Lethal Autonomous Weapons Systems (LAWS) and the outcomes of the use.

A weapon that identifies an enemy target and then eliminates it autonomously weakens the link between action and responsibility that is intrinsic to centuries of accepted ethics on warfare and international law. Yet AI will enable machines to identify enemy targets with increasing reliability. The nature of targets and defining 'meaningful human control' are complex issues. But can we at least agree that a machine that identifies a person as an enemy combatant and, independent of any human instruction, takes action to kill them, represents a red line that must not be crossed?

¹² N Davison (2018), *Scientific and Policy Adviser Arms Unit*, Legal Division International Committee of the Red Cross, p.11

“Put your sword back into its place ...” **(Theological reflection)**

Prof Esther D Reed

Professor of Theological Ethics, University of Exeter

To date, no ethic of weapons control unites major faith traditions. Much of today's law of armed conflict and international humanitarian law has religious roots stretching back to the Hebrew Bible, the great twelfth century AD Jewish rabbinic figure Maimonides, early Medieval church lawyers, verses from the Qur'an and the related legal literature of Islam. However, the religions are yet to significantly impact contemporary debates with respect to weapons control and evolutions in just war reasoning for changing threat environments. Is it possible to harness the conceptual power of religious traditions in developing ethical propositions for challenges ahead?

Mindful that potential adversaries are far advanced in their development of these technologies, the question is how Christians and people(s) of faith more generally might navigate two potentially viable routes ahead: (i) lending support to political pressure for an outright ban on the development and use of lethal autonomous weapons systems (LAWS) in the hope that all countries of the world, including the major military powers, become signatories; (ii) lending support to political pressure for a legally binding international treaty agreed by many countries of the world, including the major military powers, that sets out agreed parameters within which autonomous weapons can be developed and used.¹³

How closely the practices of Christian pacifism and just war reasoning map on to options (i) and (ii) is an open question. To my mind, option (i) is not a viable route if new moral and legal norms are to be sought on the international stage for the constraint of lethal force.

People(s) of faith from the world's religions and global citizens more generally are needed urgently as peacemakers amidst questions about weapons control and the control of weapons. How to hear and obey Jesus' words: "Put your sword back into its place; for all

¹³ These are more-or-less the three options laid out at E-International Relations, e-ir.info/2020/04/15/introducing-guiding-principles-for-the-development-and-use-of-lethal-autonomous-weapon-systems

FUTURE OF ARMS

who take the sword will perish by the sword” (Matthew 26:52 NRSV; Mark 14:47; Luke 22:49-50-2; John 18:10-11) remains of critical import. These words were interpreted by Justin Martyr, Tertullian, and many others in the Early Church to preclude fighting against enemies and to forbid military service for Christians. Today, they might perhaps be interpreted in support of option (i) above. Equally, they might be interpreted as precluding any attempt to put decision-making and the control of a weapon beyond the reach of divine address, that is, beyond the demand before God of human accountability for the taking of life. Today, the mental image of a single sword must be adapted to multi-agent, AI-enabled systems. But Jesus’ words must yet be heard. The warning that “all who take the sword will perish by the sword” calls all to be peacemakers and proactive in weapons control and the control of weapons. Jesus’ additional words “Put your sword back into its place” need not (only) be interpreted in support of an outright ban but speak powerfully to the demand for accountability for use of the weapon. Adam and Eve attempted to relocate blame: “The serpent tricked me, and I ate.” (Genesis 3:13) They might have said: “The machine took its own decision and fired’.

Classical studies in just war reasoning often overlooked the historical evolution of weaponry and weapons law. Erasmus’s highly rhetorical tract *The Complaint of Peace* (1521) repudiated the warmongering of his age with its weapons of sword, bayonet and cannon, but as part of a general plea for peace rather than analysis of weapon types. During most, if not all, of the wars of subsequent centuries the conduct and treatment of soldiers was based on custom. Not until the early 1860s did attempts to regulate the conduct of war gain widespread traction with, notably, the acceptance by US president Abraham Lincoln of the ‘Lieber Code’ (1863) and the creation in Geneva, Switzerland of the ICRC (1863). Today, in an era of new weapons technologies, religiously informed considerations of the development of international law are urgently needed for sustainable regulation and accountability. Human accountability is yet demanded of the taking of human life.



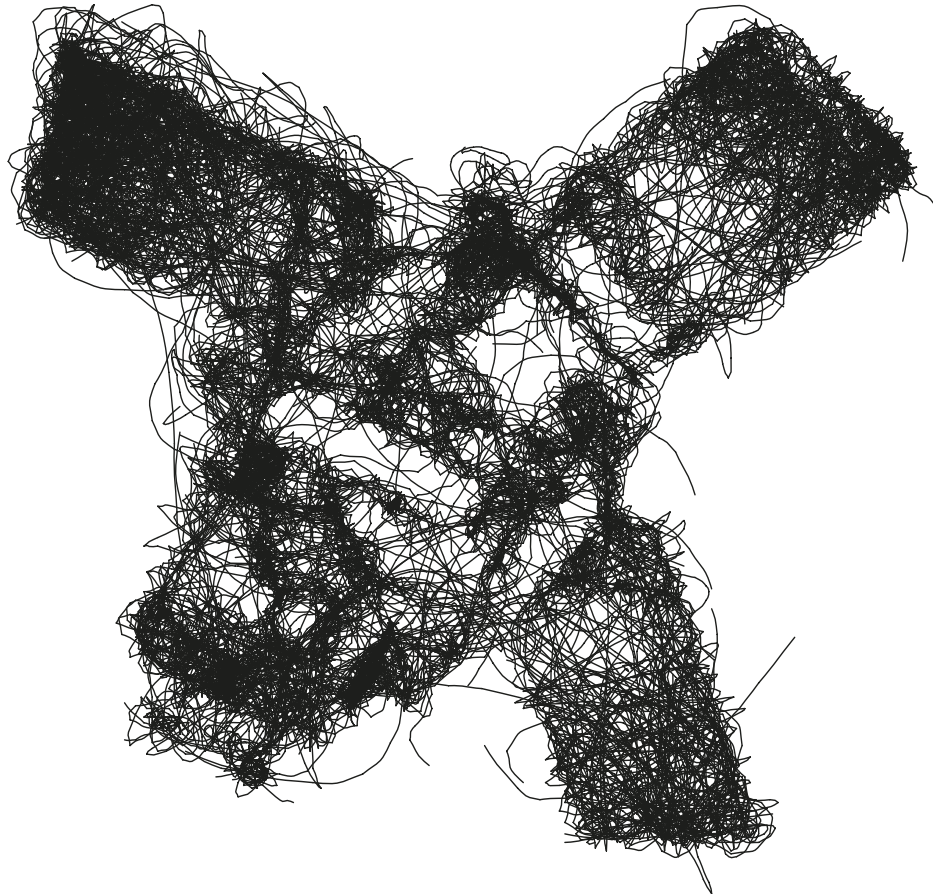
Further Reading

Statement of the inter-faith group of the Campaign to Stop Killer Robots,(May 2023),
oikoumene.org/resources/documents/statement-of-the-inter-faith-group-of-the-campaign-to-stop-killer-robots-may-2023

Article36 briefings,
article36.org/what-we-think/autonomous-weapons

Proceed with Caution: Artificial Intelligence in Weapons Systems, AI in Weapons
Systems Committee Report 2023-24, House of Lords,
committees.parliament.uk/publications/42387/documents/210740/default

FUTURE OF ARMS



NO LIMITS IN SPACE?

FUTURE OF ARMS

No limits in space?

"Space is the world's newest war-fighting domain."

Donald Trump, 2019

Technology Overview

With so many pressing challenges facing us down on Earth, it is easy to lose sight of what is happening above our heads. The cost of putting a satellite in space has fallen and is now around \$1,000/kg – that is about 80 times lower than space shuttle cost per launch in the 1980s. Everything from navigation, instant communication and weather forecasting relies on space-based technology. With the growing prevalence of this kind of technology, it is not surprising that it is also essential to military and security infrastructure. Militaries across the world rely on satellite technologies for their operations, so space has become an increasingly contested zone and an important sphere of influence for any global power. In the weaponisation of space, we see a new arena for competition and conflict between major powers. Those powers with the greatest space capabilities – China, Russia and the United States – are increasingly at risk of direct conflict.

Types of space weapons

There is no universal definition of 'space weapon' but it is broadly understood to refer to technology based in space or that has an essential element based in space that intends to cause harm, ranging from temporary disruption to permanent destruction.¹ This could be a weapon originating on Earth with the capacity to cause harm to technology based in space, or weaponised satellites that can attack targets in space or on Earth.² We could shortly see satellites with the capability to disable or destroy other satellites in what is termed a 'co-orbital' attack.

¹ Bob Preston, Dana J Johnson, Sean J A Edwards, Michael Miller, and Calvin Shipbaugh (2002) *Kinds and Capabilities of Space Weapons, Space Weapons Earth Wars*, 1st ed., p. 23-50. RAND Corporation.

² Ballistic missiles that fly beyond the atmosphere but do not achieve orbit are therefore not included in the definition of space weapons.

FUTURE OF ARMS

Ground-based attacks on satellites

Attacks on communications satellites could be extremely disruptive to our societies. The US has recently developed some sophisticated 'counter-space technology' that has the ability to jam the communications or damage space-based communications or GPS systems, such as the Russian Glonass and Chinese Beidou systems. However, the Russian and Chinese systems both have military and non-military uses. We are now so dependent upon space-based communications equipment that a sophisticated attack could have major consequences, potentially interfering with crucial infrastructure used across civil society such as in hospitals or traffic control systems.

The latest US communications satellite systems are resistant to jamming by adversaries. Consequently, the ability to physically destroy a satellite might be now that more attractive to China, Russia or others. China, the US, Russia, and now India, have all tested missile attacks on their own satellites in low earth orbit. These have created space debris that poses a danger to the operation of other satellites. If such practices continue, there is a risk of debris clouds propagating from physical destruction of satellites, which could cascade and have a major impact on space infrastructure.

In addition, the US, Russia and China are all thought to possess or are developing ground-based laser (Directed Energy) systems that can either temporarily dazzle or permanently blind the optical surveillance satellites of their competitors. Ground-based attacks either by laser or conventional physical means can be launched from hardened missile stations that are difficult for the adversary to attack. Therefore, any state that attacks another's satellite would be unable to prevent retaliation in kind with the consequence that they may be deterred from offensive action.

Co-orbital attacks on satellites

This approach does not apply so straightforwardly with space-based killer satellites that are able to destroy other satellites and yet be immune from ground attack. A satellite designed to defend itself against attack also has the capability to launch an offensive operation against other space assets. Co-orbital attack capabilities are, therefore, considered to be inherently destabilising, potentially giving great power and influence to the first nation to populate space with weapons.

FUTURE OF ARMS

Co-orbital attack capabilities range from dual-purpose technology that might appear benign, to direct energy (laser) guns in space. China and the US are developing manoeuvrable satellites with robotic arms to carry out repairs on their own satellites, but which would equally have the ability to puncture an adversary's satellite or throw it out of orbit.³ The US and UK have claimed that Russia released a projectile from a manoeuvrable satellite in 2020, which they believe was the test of a satellite-based space weapon.⁴ The US has announced that in 2024 it will install on a fighter jet for test purposes a directed energy weapon (a laser)⁵ that is capable of destroying missiles. It would not be straightforward to place lasers in space along the lines of the US 'Star Wars' initiative (originally promoted by Ronald Reagan in the 1980s) as these weapons require a powerful and potentially bulky energy source. However, with the development of huge new rockets such as the Space X Starship, the cost of putting technology in space is tumbling. We are likely to see an acceleration in civilian and military use of the space domain and of military capabilities that are limited only by mutual voluntary restraint.

Ethical Concerns

Existing norms under threat

The United Nations Environment Programme defines the Global Commons as "resource domains or areas that lie outside of the political reach of any one nation state." This has historically included the Arctic, the Antarctic, and oceans and space. The principle of a Global Commons has sought to protect these areas from the default of ownership and competition. Until now, the norm across the international community regarding the weaponisation of space has been one of non-conflict. There is concern that this is rapidly ceasing to be the case.

³ 'China's 'Satellite Killer' Spacecraft Threatens To Puncture US Military In Space By Crippling Its Recon, Navigation & EW Satellites', EurAsiantimes.com, accessed 29/01/2024

⁴ 'UK and US say Russia fired a satellite weapon in space', BBC News, accessed 29/01/2024

⁵ Jim Romeo (May 2023), 'An upward trajectory for directed-energy weapons', MilitaryAerospace.com

FUTURE OF ARMS

Maintaining 'space superiority' – an essential prerequisite in modern warfare

Wendy Whitman Cobb argues that a significant reason the militarisation of space has not been more fully explored is not because of moral or ethical misgivings from global powers but because of practical and economic concerns.⁶ As technology becomes increasingly sophisticated, accessible and affordable, global powers may be happy to pursue its use. There are relatively few constraints on the weaponisation of space in international law. The 1967 Outer Space Treaty (signed by the UK, USA, Russia, China and over 100 others) bans only the stationing of “weapons of mass destruction” in space.⁷ Since the early 2000s, China and Russia have advanced a series of proposals to ban the placement of weapons in outer space, culminating in a draft Treaty on Prevention of the Placement of Weapons in Outer Space (PPWT) in 2008, revised text in 2014. This was rejected by the US and other countries on the grounds that it was difficult to verify and that it excluded ground-based direct ascent weapons that China has already tested.⁸ Until recently, the US has resisted treaties that might compromise its national interest. Air Force Space Command stated in its 2003 Strategic Master Plan, “the ability to gain space superiority (the ability to exploit space while selectively disallowing it to adversaries) is critically important and maintaining space superiority is an essential prerequisite in modern warfare.”⁹ However, the US has announced a unilateral moratorium on Direct Ascent Anti-Satellite missile tests and proposes the establishment of new norms for responsible behaviour in space.¹⁰

Preventing an arms race in outer space

The UK has significantly increased its commitment to the militarisation of space, making the UK MoD Space Command based at High Wycombe a tri-services operation.¹¹

⁶ W Whitman Cobb, (2020), *Making a Moral Case for Nonconflict in Space: Expanding Strategic Norm to Taboo*, Wild Blue Yonder / Maxwell AFB, AL, Air University

⁷ Arms Control Association, Fact Sheets, [The Outer Space Treaty at a Glance](#)

⁸ M Listner and R P Rajagopalan, [The Space Review: The 2014 PPWT: a new draft but with the same and different problems](#), *The Space Review*

⁹ Reaching Critical Will; [‘Outer Space’](#), [reachingcriticalwill.org](#)

¹⁰ Ankit Panda and Benjamin Silversten (April 2022), [The U.S. Moratorium on Anti-Satellite Missile Tests Is a Welcome Shift in Space Policy](#), [carnegieendowment.org](#)

¹¹ “In May 2018 the MoD published the ‘headlines’ of its intended strategy, which set out a vision of securing “freedom of action in space” that fully exploited “its military and civil potential”.

FUTURE OF ARMS

The government intends to establish around seven horizontal or vertical launch sites (space ports) with Scotland and Cornwall featuring prominently in these plans. The UK has been leading efforts in the UN to switch the focus from developing treaties around hardware and technology development, and instead focus on transparency and confidence-building measures that support the prevention of an arms race in outer space. There is a pressing need for such measures in the light of increased military tensions.

The United Nations General Assembly has regularly voted on a resolution that reaffirms a principled desire to Prevent an Arms Race in Outer Space (PAROS). The US consistently votes against these resolutions. But just as concerning are the statements of US and Russia military strategists that endorse such an arms race. While PAROS resolutions regularly attract support from a majority of states, it is difficult to claim that this is a broadly accepted norm. For the sake of peace and prosperity, the technologies for weaponising the precious domain of space should be locked in a box marked 'do not touch'. For that to happen, a wider public awareness and debate is required.

Restoring right relationship and maintaining balance (Theological reflection)

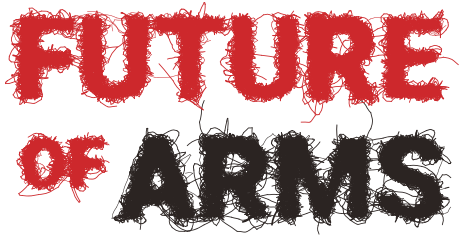
Dr Madeleine Pennington
Head of Research, Theos

Genesis describes human stewardship over earth, but not beyond it. It is human arrogance to assume the whole of creation, even into space, is ours to conquer, not least for militaristic purposes or to boost national pride. The nature of our stewardship is that we are ultimately called to restore wholeness of right relationship and maintain balance, rather than extending our reach ever further. Few projects more succinctly sum up the opposite of our basic vocation than the colonisation of the sky over one another's heads for the purpose of subduing one another.

The Bible suggests 'the heavens' are God's – again, not ours. In Genesis 11 (Tower of Babel), the attempt to reach 'the heavens' is a metaphor for human pride attempting to challenge God's authority. So, the 'heavens' have a symbolic role in the Bible. The classic story of human pride, trying to compete with God is especially pertinent here, not only as an ethical warning, but because it uses imagery directly evocative to this moral issue.

The practical role of power in space militarisation deserves particular attention; space is carved up unequally, reproducing inequalities down on earth. There are various moral implications which could also be the basis of their own separate theological reflection, such as the ethics of spending limited resources on military might rather than human flourishing (for, schools or poverty relief).

One potentially fruitful avenue of reflection would be on the invisibility of this power. Power in general is not visible, and this can make human misuse of it insidious. Ethically, militarisation of space harnesses power in a way that is especially difficult for us to pin down and hold to account; the fact this power is so invisible makes it easier to misuse. Christians should be especially aware of the invisible and spiritual nature of power and the tendency for unaccountable power to corrupt. But at a deeper theological level, human interpretation of power often perceives it as a destructive and/or coercive commodity, while divine power is creative; the first act of divine power is creation. Fundamentally, we really should be releasing one another's own creative power in the image of God. As above, militarisation of space works against that at many different levels.



Further Reading

Secure World Federation,

swfound.org/media/207567/swf_global_counterspace_capabilities_2023_v2.pdf

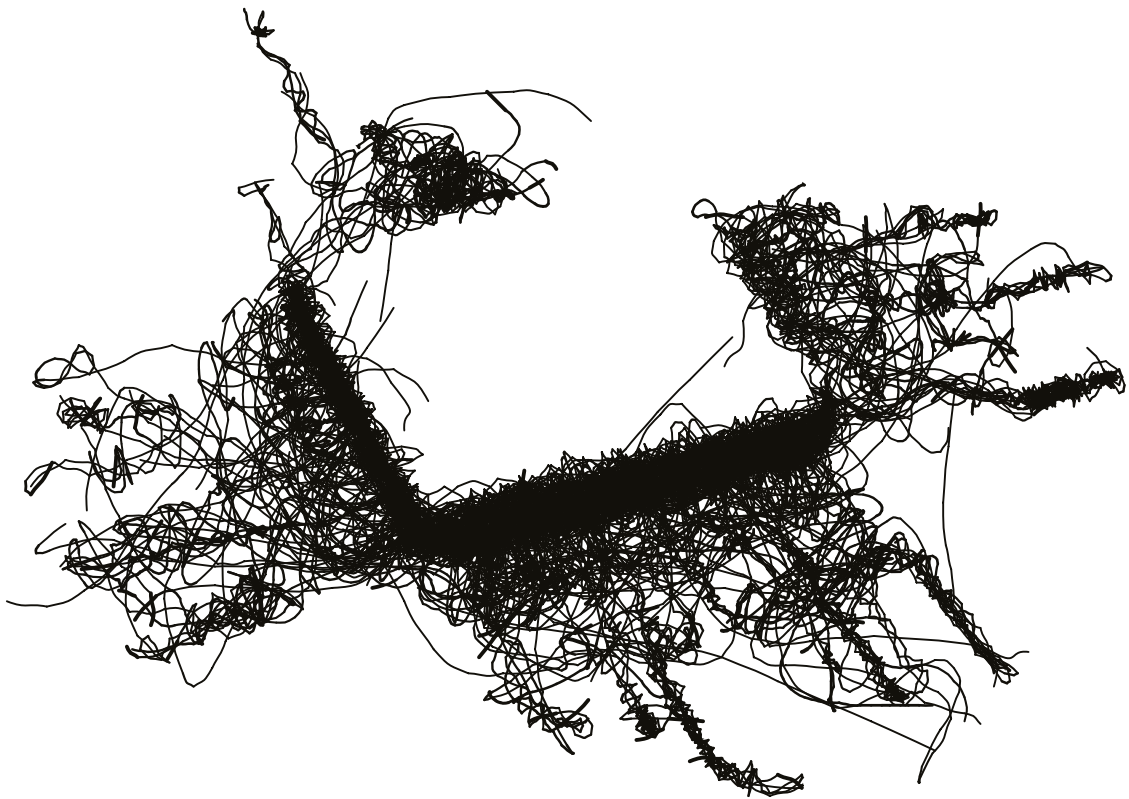
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FUTURE OF ARMS



CYBER-ATTACKS VERSUS CYBER WAR

FUTURE OF ARMS

Cyber-attacks versus cyber war

"Where needed, we will shape new rules so that offensive cyber tools are developed and used responsibly and in accordance with international law."

Global Britain in a Competitive Age: The Integrated Review
of Security, Defence, Development and Foreign Policy
(Presented by Command of Her Majesty, March 2021)

Technology Overview

The concept of 'cyber' is, by its nature, intangible and constantly evolving. The term 'cyberwarfare' lacks precision but generally denotes attacks on a nation-state via computer networks with the intention of damaging or disrupting critical IT and associated infrastructure. It usually concerns attacks carried out or encouraged by another state entity but is sometimes extended to include attacks perpetrated by non-state entities. The UK has established a National Cyber Force in the Ministry of Defence to gather intelligence and carry out defensive and offensive cyber operations.

We can imagine the paralysing effect of an attack that disabled, even temporarily, all telephone, mobile and internet connection across another country. Chaos would ensue, even leading directly or indirectly to loss of life. In practice, most cyber-attacks tend to be more subtle so that the source of the attack can remain well hidden.

Cyber-attacks may consist of securing access to other states' networks, theft of sensitive information, extortion by ransomware or the disabling of critical military or civilian systems. The following describes the various forms of cyber-attack and recent instances of their use.

FUTURE OF ARMS

Distributed Denial of Service (DDoS) Attacks

DDoS Attacks are sometimes referred to as 'flood attacks'. The aim of a DDoS Attack is to overwhelm a digital network with excessive traffic that causes a temporary shutdown of the site.¹ This could involve the use of computer generated 'bots' or other means to inundate a system beyond its capacity. An unusual attack occurred one hour prior to Russia's invasion of Ukraine on 24 February 2022, which ultimately had the effect of a DDoS attack. It hit a network used for satellite internet connection in Ukraine (for customers with mobile terminals or located in areas of poor internet connectivity). The attack targeted a specific model of modem used by network customers by changing the control software of these modems, denying users access and disrupting the network as a whole. While it impacted thousands of internet users in Ukraine, it also impacted tens of thousands of users across Europe. A German energy company lost connection with 5,800 wind turbines, temporarily disrupting the monitoring and control of its network. A factory reset and reprogramming got many modems back online, but the network operator also sent out 30,000 physical units to customers to ensure that they could resume operation.²

Control System Attacks

Control System Attacks specifically target and seek to alter or damage the operating systems of cyber technology. This includes attacks that cause damage to computer systems causing them to cease to function. These 'syntactic attacks' use aggressive software such as 'viruses', 'worms' or 'Trojan Horses'. Malwares can be used to infect systems to corrupt operating systems or records so that they lose functionality. Ransomware is a very specific type of control system attack designed to extort cash ransoms from individuals, business or government. The largest example (thus far) of this was the 2017 WannaCry ransomware attack, which locked an estimated quarter of a million computers in 150 countries, and severely affected the NHS. Ransomware attacks have been used to gain funding not only by criminal enterprises, but also by terrorist and other extremist groups. The WannaCry attack has been linked to systems in North Korea and a UN Security Council report stated that "cyber-attacks, in particular on cryptocurrency assets, remain an important revenue source for the Government of the Democratic People's Republic of Korea".³

¹ P Margulies (2013), 'Sovereignty and Cyber Attacks- Technology's Challenge to the Law of State Responsibility', *Melbourne Journal of International Law*, Vol. 14, p. 501

² '[KA-SAT Network cyber attack overview](#)', Viasat

³ United Nations Security Council, *UN Panel of Experts report in relation to SC resolution 2569 (2021 – DPRK's pursuit of nuclear weapons)*, [N2225209.pdf](#), accessed 19/09/2024

FUTURE OF ARMS

Attacks that aim to achieve physical damage

Attacks may aim to have a wider physical damage by disabling or reprogramming critical control systems. Extreme examples might include attacks on air traffic control systems or nuclear power stations. The Stuxnet virus allegedly caused damage to one fifth of the centrifuges at Natanz, an Iranian nuclear enrichment facility. The worm ended up infecting 200,000 computers but was designed to only affect equipment that controlled centrifuges at the Natanz nuclear facility. It prompted this equipment to spin the centrifuges at speeds that caused them to tear themselves apart while reporting to the plants operators that everything was normal. Cyber security experts have stated that the sophistication of the Stuxnet virus would have taken a team of people many months to write and required inside intelligence knowledge of Iranian nuclear facilities. The investigations found links to Israeli servers and investigative journalists have interviewed Israeli and US Government officials involved with the programme.⁴ It took place at a time when President Obama was justifying cyber-attacks on Iranian nuclear facilities.

There are significant challenges in identifying the role of governments in cyber-attacks and proving responsibility. This leads to heightened suspicion, accusation, denial and animosity between the powers that operate in the cyber domain, adversely impacting relationships more generally. In 2020, high levels of US Government departments and private companies were breached by hackers in the 'Solar Winds' hack. The US and UK blame Russia, whilst the Director of Russia's Foreign Intelligence Service, Sergei Naryshkin, told BBC Moscow "these claims are like a bad detective novel".⁵

Cyber-attacks, originating either from state or non-state actors, are an increasing threat. We might hope that cyber-capable powers will perceive that escalating contests in the cyber domain are not in their mutual interests. We could seek to agree standards that limit the impact of cyberwarfare and undertake to ensure that cyber criminals are apprehended. However, in practice, such mutual self-constraint is going to be difficult to achieve as military and economic infrastructure increases its reliance on technology, providing incentives to develop new forms cyber threat.

Over the coming years, we can expect cyber-attacks to be supported by AI tools to increase sophistication. AI is likely to be used to find vulnerabilities in systems faster, enabling attacks to be devised more quickly.

⁴ David E Sanger (June 2012) '[Obama Ordered Wave of Cyberattacks Against Iran](#)', *The New York Times*

⁵ '[SolarWinds hack: Russian denial 'unconvincing'](#)', BBC News

Ethical Concerns

Cyber-attacks verses cyberwar

President Obama asserted in 2010 that, “When warranted, the United States will respond to hostile acts in cyberspace as we would to any other threat to our country.”⁶ Strikingly, such retaliation could include a military response. Cyber expert Professor Thomas Rid suggests that cyber-attacks cannot be grouped in with other ‘acts of war’ since they generally lack the direct relationship with ‘lethality’ that he regards as definitional of warlike violence.⁷ Just war assumes a just outcome and an end to conflict whereas cyber-attacks by themselves are unable to bring an end to a cyber conflict. Cyber threats should not necessarily be considered as an alternative to kinetic attacks but could, and will be, considered as a supplement to other means of conflict.

A key principle that shapes the ethical debate includes ‘sovereignty’. Sovereignty protects “within the limits set by treaty and customary international law, the exclusive right [of a state] to exercise jurisdiction and authority on its territory”.⁸ This enshrines the right of a country to self-defence. The pertinent question, therefore, is whether cyberspace constitutes a nation’s territory and whether any act of ‘self-defence’ to a cyber threat should therefore be limited to cyberspace. Equally, the UN principle of the prohibition against the use or threat of force (set out in Article 2[4] of the UN Charter), begs the question of what constitutes ‘force’.⁹ It is difficult to conceive of a cyber-attack that could satisfy the requirements of ‘force’ to the extent of justifying a military response, let alone a response with nuclear weapons.

⁶ B Obama (2011), ‘International Strategy for Cyberspace: Prosperity, Security and Openness in a Networked World’, accessed: obamawhitehouse.archives.gov/sites/default/files/rss_viewer/international_strategy_for_cyberspace.pdf

⁷ T Rid (2012), ‘Cyber War Will Not Take Place’, *Journal of Strategic Studies*, 35(1), 5–32, p. 9

⁸ Tallin Manual (2013), NATO CCD COE

⁹ Crucially, all the UN principles are based on the principle of state responsibility and attribution. Yet the nature of cyber-attacks is that the source can be disguised and attribution avoided. This clearly has stark ramifications on how states are held accountable to the principle of non-intervention in another state.

FUTURE OF ARMS

Cyber deterrence?

It seems unlikely that the threat of use of cyber weapons could have a deterrent effect in the minds of an adversary. For deterrence to work reliably the nature of the weapon and its likely impact must be known, whereas cyberwarfare by its very nature thrives on secrecy and the element of surprise. Consequently, the United States military¹⁰ has instead considered the use of conventional and even nuclear weapons as parts of an escalatory ladder to cause states contemplating a wide-scale cyber-attack to think twice. Similarly, the UK Government has likened the possible impact of cyber-attacks to the impact of nuclear weapons and suggested that the UK's nuclear weapons could have a role in deterring overwhelming cyber-attacks.¹¹ But is this not a rather extreme suggestion? Should we not be promoting a principled and stark separation between the cyberwarfare domain and the possible use of nuclear weapons, or indeed conventional weapons?

Cyber threats are here to stay

While cyber security is vital as a defence, those carrying out cyber-attacks can make themselves immune to capture. In this respect, an escalating cyber conflict could have no end. As cyber threats play an ever larger and more sophisticated role in the nature of international conflict, it is crucial that the international community can substantiate the ethics around these contested principles. The abject seriousness of cyber threats needs to be recognised but it must never become convention that a non-lethal cyber-attack is given direct moral parity with a lethal kinetic attack.

¹⁰ Specifically, the 2013 US Defense Science Board. Quoted by Andrew Futter (2016), *Cyber Threats and Nuclear Weapons* (section titled Nuclear Weapons and Cyber Deterrence), RUSI, p. 35, [cyber_threats_and_nuclear_combined.1.pdf](#) accessed 19/09/2024

¹¹ In the 2021 Integrated Review of Security, Defence, Development and Foreign Policy added "emerging technologies" to the list of non-nuclear threats to which the UK's negative security assurances regarding use of nuclear weapons might not be extended. A similar phrase was used in the United States Nuclear Posture Review and US Generals stated that "emerging technologies" refer to cyber weaponry.

Offensive Cyber Operations and principles of justice (Theological reflection)

Revd Steve Faber

*Moderator of the West Midlands Synod,
The United Reformed Church*

Physical war is easy to see – ‘boots on the ground’, bombs dropped, people dying, and so on. Cyber-attacks, by their very nature, are often much less visible, and this provokes significant ethical and theological concerns, most particularly around Offensive Cyber Operations (OCO) ie proactive cyber-attacks rather than defensive/protective operations.

Does the reduced physical harm of such operations shift the ethical balance scales in favour of cyber weaponry? The problem lies with the difficulties in containing OCO to only the intended target. The *jus in bello* principles (moral guidelines for the conduct of war) require discrimination – ensuring that non-combatants are immune from attack. Cyber weaponry, by its nature, spreads from computer to computer, and it can be almost impossible to contain it to only the intended target. Thus, real harm may occur to civilians and to other uninvolved nations, which is unjust and contrary to international law.

Cyber operations often deliberately point to other non-involved parties as being responsible to divert attention away from those that launched the attack. This would likely be with the intention of escaping retaliation, but could equally be a deliberate scheme to spread conflict. The implications of the latter intent are plain, but in either scenario, false attribution will sometimes lead to retaliatory strikes (cyber or kinetic) that breach the just cause principle within the Just War Theory (*jus ad bellum*).

Ethicists argue that Just War principles are difficult to align with this new reality of cyber weaponry. As nations engage in OCO against each other there is a natural tendency to escalate intended impacts, so that one comes out ‘on top’ of another. It thus becomes increasingly hard to ensure proportionality of impact – that is, that cyber weaponry is deployed in order to achieve a better outcome than the evil done as a result of war. Another of the *jus ad bellum* principles is that there must be a high likelihood of peace emerging from the warfare, and a tit-for-tat escalation makes this harder to achieve.

FUTURE OF ARMS

By convention, in the UK the government must report to Parliament its intentions ahead of (physical) military action. This is in line with another *jus ad bellum* principle – relying on the right authority to authorise attacks. However, as cyberwarfare is conducted under the banner of National Security and in secret, there is little to no public scrutiny of OCO. We do not, and mostly cannot, know what is being done ‘in our name’. Ephesians 5 warns us to have nothing to do with the deeds of darkness, but rather to expose them into the light. Job’s answer to Zophar asserts that God “uncovers the deeps out of darkness, and brings deep darkness to light” (12:22 NRSV). That is surely God’s intent – that we do not do in secret what we would not do openly.

The use of offensive cyber weaponry falls short of the *jus ad bellum* and *jus in bello* principles for many reasons. We must also note that many within the member denominations of JPIT would refute the principle of a ‘just’ war on ethical (pacifist) grounds anyway – this conviction would hold that war in any form can never be justified: it is in fundamental opposition to the pattern of love for neighbour and enemy (Matthew 5:43-45a) and contrary to the nature of God (eg 1 John 4:8).

Pandora’s box has been opened, and the evils therein released. Cyber weaponry will not go away, but we must call for the highest of ethical standards in this domain and speak out against practices that seek to exploit and harm others. “Blessed are the peacemakers, for they will be called children of God” (Matthew 5:9 NRSV).

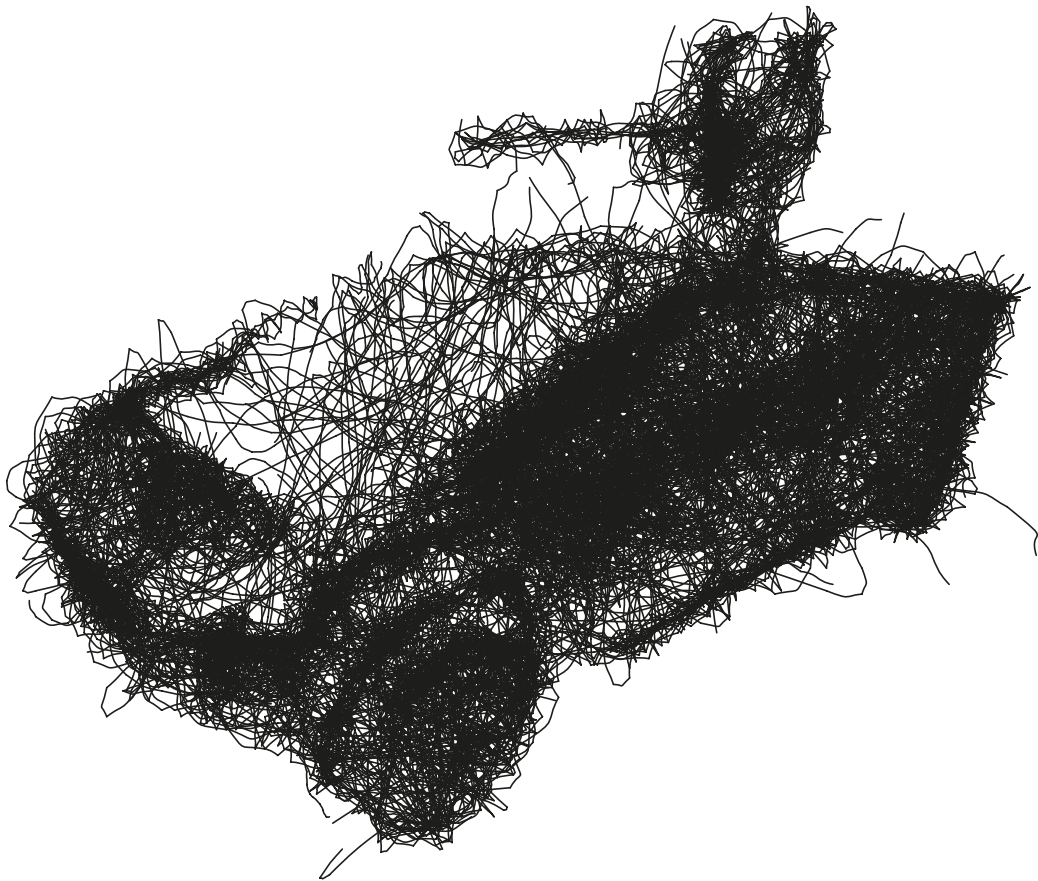
Further Reading

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Cybersecurity in the UK, House of Commons Library,
commonslibrary.parliament.uk/research-briefings/cbp-9821/

‘International Strategy Cyberspace Factsheet’,
obamawhitehouse.archives.gov/sites/default/files/rss_viewer/International_Strategy_Cyberspace_Factsheet.pdf

FUTURE OF ARMS



MONEY, PROFIT, POWER AND THE GLOBAL ARMS RACE

FUTURE OF ARMS

Money, profit, power and the global arms race

*"Weapons are like money;
no one knows the meaning of enough."*

Martin Amis, *Einstein's Monsters*, Jonathan Cape, 1987

Technical Overview

A new technological arms race

This briefing takes a critical look at the drivers for the UK's investment in defence technology. It explores the potential for UK influence in this area and invites reflection on its ethics. It argues that the national pursuit of profit and prestige by the wealthiest nations undermines common security for all.

We appear to be entering a new era of global power competition, characterised by conflictual relationships between China, the West and Russia. Global military expenditure increased by 3.7 per cent in real terms in 2022, to reach a new high of \$2,240 billion. Military expenditure in Europe in 2022 saw its steepest year-on-year increase in at least 30 years.¹ In the two weeks following Russia's invasion of Ukraine, some of the top UK major defence companies saw a jump of 15 per cent or more in share price and have experienced strong growth since.

Since Russia's invasion of Ukraine, the UK has provided support for defence of its territory, including advanced Storm Shadow missiles, air defence and cyber security. Possessing superior military capabilities can play a role in deterring expansionist states. Therefore, arguments for increased defence spending, including extraordinary sums on expensive

¹ ['World military expenditure reaches new record high as European spending surges'](#), SIPRI

FUTURE OF ARMS

weapons technologies, resonate with publics who are concerned about Russian and Chinese influence and expansion. Yet the fixation of current and previous UK Governments on the goal of increasing the UK's market share of global defence exports appears to be motivated more by the perceived economic benefit to the UK than careful responses to the challenging international security environment.

Even prior to Russia's invasion of Ukraine, the UK Government was ploughing billions of pounds of public money into new arms technologies in a desire to increase UK exports. In 2017, UK Trade and Investment (UKTI) had just eight staff to support export trade in the UK's education sector and 13 to support the export of healthcare services. In the same year, support for exports of offshore wind turbine technology increased from one person to two. In comparison, taxpayers funded 122 government officers to support defence industry exports alongside another 20 senior posts in diplomatic missions around the world.² This increases the volume of weapons around the world and helps to bring new weapons technologies online.

The government's desire for the UK to become a technological superpower

The UK has scaled back the size of its armed forces in recent years. The government view has been that the UK's strategic advantage will not be in troop numbers but in high-tech capabilities. The Integrated Review of Security, Defence, Development and Foreign Policy (2021) aims to help establish the UK's status as a science and technology superpower by 2030. This takes advantage of the UK's history of scientific innovation and the 'world-beating' research of the UK's university sector. The UK strives to develop new defence technologies early and to be among the first to implement them. For example, the UK is one of the first nations to claim to have used a direct energy (laser) weapon to successfully shoot down a drone in tests of its DragonFire system.³ The UK aspires not just to compete

² JPIT, '[Good for us: the UK Arms Industry](https://jpit.uk)', jpit.uk

At the time of writing, the former Defence Support Organisation (DSO) had been restructured as the 'UK Defence and Security Exports' which is a part of the Department for Business and Trade. In 2024, it had around 100 staff in London and another 27 members in the Export Support Team. (UK Defence and Security Exports, '[About Us](https://eventscloud.com)', eventscloud.com)

³ Note that governments are often keen to make such claims but, as the technology and tests are classified, we cannot be sure. This report is most likely an over-confident assertion of the weapon's current capabilities.

FUTURE OF ARMS

but to be an innovator in new technologies; it is therefore incumbent on the UK to show equal commitment to the exploring the ethical and human rights implications of these new technologies.

In 2007, the Labour Government aspired for the UK to be a 'Disarmament Laboratory', using its technological prowess to demonstrate new approaches to nuclear disarmament verification.⁴ As a potential major player, the UK ought to be well-placed to press for global constraints on new technologies for remote warfare, or on certain types of weapons that weaken established norms such those that oppose the weaponisation of outer space. However, the UK must be prepared to forgo the opportunities for status and profit that arise from the manufacture of high-tech weapons that are available only to a few elite forces. We must also be prepared to face up to the lobbying of defence companies driven by intrinsic concerns over loss of market share and 'falling behind'.

Expanding the military-industrial base

The relationship between defence companies and the Government is not a typical supplier/customer relationship. For a defence company, the Government is their primary customer, research funder, the approver of their exports and the creator of the complex legal framework within which they operate. Moreover, the Government considers the maintenance of the industrial base that enables the nation to produce sophisticated weapons systems a strategic priority. In the highly converged defence market this means maintaining the capacity and profitability of defence companies. Given the revolving door of personnel and extensive company lobbying, it is perhaps better to view defence companies and government as one entangled entity rather than as a supplier and a customer. Short of re-nationalising UK defence industries, these structural invested interests will not change, which makes transparency and public scrutiny crucial to their management.

Cyclical nature of arms innovation

The traditional view of a technological arms race is of two opposed groups of nations developing weapons that counter those developed by the other, each driven by a wish to dominate or a fear of being dominated. A cycle develops where each side's advance is countered by a further advance by the other.

⁴ Margaret Beckett (June 2007), '[Keynote Address: A World Free of Nuclear Weapons?](#)', Carnegie Endowment for International Peace

FUTURE OF ARMS

Since the end of the Cold War, another dynamic has emerged, where Western defence companies, in order to fund the development of their next generation of weapons, sold the current generation of weaponry more widely. The need for the new generation of weapons was then justified by the widespread possession of the current generation of technologies. Hence the cycle re-emerges, with defence companies expensively chasing their own tails, essentially competing against themselves. In the first case the cycle is driven by fear and the desire for power, whereas in the second case the cycle is driven by the need for the defence industry to generate profits. Both cycles increase threat and tension as well as consuming resources that could be used for activities more beneficial to the common good. It is instructive to recognise that, as well as driving defence industry profitability, these cycles also show up in national accounts as economic growth.

These structural economic realities need not prevent the UK Government from leading in international arms control. This was demonstrated by the UK's early support for the international Arms Trade Treaty from 2005 onwards and its eventual and pivotal support for a strong agreement on cluster munitions in 2008. It does, however, require a strong civil engagement to hold governments to account. If weapons have a place in our world then so does investment in research and development of new capabilities; but only to a certain degree and only as long as such developments avoid the creation of new areas of contest or increase a sense of vulnerability and insecurity.

The UK's future defence posture will benefit from an informed public dialogue in which civil society and faith groups are engaged in conversation with security specialists. Navigation of a safer future for all requires that security strategies promote global human rights and the UN Sustainable Development Goals.

Ethical Concerns

Conceptual perspectives on security and power

Since the development of intercontinental ballistic missiles and nuclear weapons in the 1940s and 1950s, the richest and most technologically advanced states in the world have been able to project unprecedented power and threaten others with utter devastation. Remarkably, the UK does not forswear the use of nuclear weapons in response to an overwhelming cyber-attack and refuses to support the principle of 'no first use' of nuclear

FUTURE OF ARMS

weapons.⁵ Some perceive this pursuit of power to be a particularly gendered, patriarchal and elitist perspective on international relations, arising from a position of historical dominance and power.⁶ This, it is argued, constrains the advancement towards a more communitarian ordering of the global community. When motivations are dominated by narrow national economic and security interests, envisioning genuine security for all is extremely difficult. More co-operative and less hierarchical approaches are required to address shared global concerns such as arms control and climate change.

Proportionality and the climate crisis

The climate crisis represents a very serious impending threat to global human security. Grant contributions from governments to address the global efforts on climate mitigation and adaptation reached \$25.6 billion in 2022.⁷ Global spending on the military has reached \$2.4 trillion⁸, 95 times the amount of climate finance grants provided by developed nations to overcome the threat of climate change. In this context, arms control and limitations on arms spending are vital. A fraction of the money invested in weapons (including their stockpiling, maintenance and deployment) could multiply our combined efforts to protect our global environment and secure the livelihoods of future generations.

Selling to regimes that suppress human rights

The claim of many governments that their military spending and investment in new weapons technology is a force for good is shattered when you look at those to whom they sell. For example, Saudi Arabia is listed as one of 30 countries of concern in the UK annual human rights and democracy report.⁹ Between 2010 and 2019, Saudi Arabia was the largest national market for UK arms exports representing around 40 per cent of the UK's total arms exports by volume.¹⁰ The UK has exported military hardware to 58 of the 73 countries that it lists as subject to restrictions due to human rights concerns.

⁵ HMG Policy Paper (July 2021) [Global Britain in a Competitive Age: the Integrated Review of Security, Defence, Development and Foreign Policy](#) (See reference to 'emerging technologies', ie cyber-weapons, p. 77)

⁶ Women's International League for Peace and Freedom, [WILPF.org](#)

⁷ OECD, '[Developed countries materially surpassed their USD 100 billion climate finance commitment in 2022](#)', p.15 (This is the latest figure available at the time of writing, accessed 26/09/2024).

⁸ SIPRI (April 2024), '[Trends in World Military Expenditure, 2023](#)'

⁹ HMG Corporate Report (July 2023), '[Human Rights and Democracy Report 2022](#)'

¹⁰ Louisa B Holland and Ben Smith (January 2021), [UK arms exports to Saudi Arabia](#), House of Commons Library

FUTURE OF ARMS

The need for a more inclusive dialogue

Global peace and security would be enhanced and more sustainable if a large part of the trillions of dollars invested in military force were redirected to realising people's social and economic human rights and investing in peacebuilding. Weapons control can build confidence between nations and help moderate the perceived need for ever-increasing military budgets.

Progress has been made globally in perceiving arms control as a human rights concern. The UN Sustainable Development Goals assert that we cannot ensure basic rights without peace and we cannot maintain peace without people having more secure access to land, water and opportunities that many of us take for granted. Consequently, Sustainable Development Goal 16 urges that, across the globe, governments measure metrics associated with war and conflict and incorporate peacebuilding within our concept of global development. Similarly, nuclear disarmament is increasingly framed in terms of the fulfilment of the right to security for all people everywhere, as recognised by the UN Human Rights Committee in 2018.¹¹ Progress in arms control has become a global development objective and yet the forums in which it is often negotiated, such as the Convention on Conventional Weapons (CCW) and the Conference on Disarmament (CD), only provide access to militarily powerful states.¹²

We can and must do better. When possessor states fail to agree regulation on technologies that cause widespread concern, we must press our governments to organise inclusive forums under the mandate of the UN General Assembly. It is for this reason that our Churches are joining the call for a fourth Special Session on Disarmament to clear procedural roadblocks and instigate an approach to arms control that has universal rights at its centre.¹³

¹¹ Alyn Ware, '[UN Human Rights Committee concludes that the threat or use of nuclear weapons violates the Right to Life](https://www.unhcr.org/refugees/article/2018/09/19/un-human-rights-committee-concludes-that-the-threat-or-use-of-nuclear-weapons-violates-the-right-to-life)', unfoldzero.org, accessed 19/09/2024

¹² United Nations Department of Economic and Social Affairs, '[The 17 Goals: Sustainable Development](https://www.un.org/sustainabledevelopment/)', [un.org](https://www.un.org), accessed 19/09/2024

¹³ JPIT, '[SSOD Briefing V2](https://www.jpit.org.uk/ssod-briefing-v2/)', [jpit.uk](https://www.jpit.org.uk)



Human rights and the arms trade

(Theological reflection)

Revd Dr Helen Paynter

*Director of the Centre for the Study of Bible and Violence,
and author of Blessed are the Peacemakers: A biblical theology
of human violence (Zondervan Academic, 2023)*

The enormous theological implications raised by these questions cannot possibly be explored thoroughly in a short paper, so this briefing aims to highlight a few issues and questions which deserve attention.

The Universal Declaration of Human Rights (adopted in 1949) was a product of centuries of thought, much of it secular, and is viewed with suspicion in some circles. Nonetheless, it finds deep theological resonance in Scripture, particularly in the early parts of Genesis where the intrinsic value of all human life is affirmed. Because humanity is made in the image of God (Genesis 1:26-7), human life is of enormous worth, and there is no hierarchy of interests in this fundamental assertion. What does it mean to understand every human life to be of equal value when we consider the movement of arms across international borders?

Remaining in these parts of Genesis, the story of Cain and Abel teaches us God's concern for the loss of human life: "your brother's blood cries out to me from the ground" (Genesis 4:10), and "whoever sheds human blood, by humans shall their blood be shed; for in the image of God has God made mankind" (Genesis 9:6). Cain's rhetorical question (Genesis 4:9) is thereby answered: we are our brothers' and sisters' keepers. What does it mean to be our brothers' and sisters' keepers – or, indeed, to love our neighbour – in a global age?

If the first two chapters of Genesis and the final two chapters of Revelation provide us with a glimpse of how God intended and purposes human life to be, the rest of Scripture is embedded in the messy reality of life after the Fall and before the Eschaton. In this in-between time, the eschatological goods, particularly those of justice and peace, strain away from one another. We therefore operate continually within the limitations imposed by this ethical strain: it is often impossible to serve the purposes of both justice and peace fully. Perhaps one of the great evils of violence is that there is no perfect way to respond to it. How can we support our governments in the attempt to balance the twin imperatives of justice and peace, and how might these put a tension upon the fiscal benefits of arms sales?

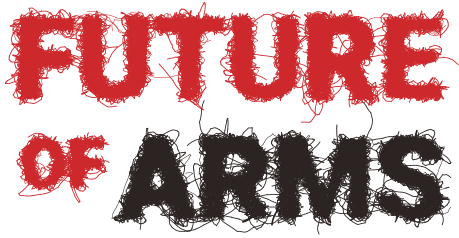
FUTURE OF ARMS

We also need to reckon with the limitations of our knowledge, for we do not know as God does. These constraints serve to limit the usefulness of any decision-making process that is based upon the ethical system of consequentialism. We simply cannot know enough to make a reliable assessment of the outcomes of our decisions.

An alternative ethical system is deontic, or rule-based ethics, and one way that these are applied is in the Just War criteria. Here, certain criteria must be satisfied before a war can be considered 'just'. There are criteria concerning the decision to go to war, and criteria for the conduct in war. Arguably, no war has been conducted in a just fashion, even if some may have satisfied the to-war criteria. However, many modern weapons strain just war principles even further, particularly weapons which can be targeted indiscriminately, or towards civilian populations. To what extent should we allow just war criteria to shape our decisions about arm sales? What responsibility does the originating country (or manufacturer) retain for the subsequent use of traded weapons?

The Church is a trans-national organisation, with members in every nation on earth. This has both practical implications for the possibility of peace-making across borders, and theological implications in terms of the essentially non-partisan nature of the Church. How can the Church be a prophetic actor in these morally complex questions? We might wish, as individuals and as local churches, to consider the following. How do we speak – to government, within society, and about our enemies? How do we act – what core practices of our gathering give witness to universal humanity and the fundamental nature of reconciliation at the Cross? How do we spend – where are our investments, and have we considered the ethical power of our money?

As we prayerfully consider these questions in the light of our calling to be a light to the world, may God lead us in the ways of peace, and into all truth.



Further Reading

UN Special Session on Disarmament: JPIT Briefing,
jpit.uk/wp-content/uploads/2023/07/SSOD-Briefing-Pdf.pdf

SCRAP Weapons,
scrapweapons.com

Graphic References

The images in this document were created using computers to draw illustrations based on photographs and graphic renderings of actual technology, either in operation or testing.

Due to the confidential nature of the material illustrated, much of the source imagery is often low resolution, unlicensed, leaked or computer generated, however it provides our best view into the appearance and existence of these phenomena.

By using computer models to re-illustrate these source images, we are able to capture an essence of their reality while conveying the obscurity of their true nature.

Below we provide references to the illustrations and their real world counterparts.

Front cover/Back cover

Illustration: Swarm of rugged armoured quadcopter drones

References: PC-1 Multipurpose Quadcopter or RQ-28A Quadcopter

Contents page

Illustration: Unmanned Aerial Vehicle

References: MQ-1 Predator drone

Autonomous weapons

Illustration: Unmanned Aerial Vehicle

References: MQ-9 Reaper drone

Illustration: Unmanned Ground Vehicle

References: THeMIS UGV

No limits in space?

Illustration: Military spy satellite

References: CSO-2 military observation satellite

Cyber-attacks versus cyber war

Illustration: Microchip

References: generic superconductor

Money, profit, power and the global arms race

Illustration: Armed commercial vehicle

References: Machine gun mounted Tesla cybertruck

