Drones: Ethical Dilemmas in the Application of Military Force

A. INTRODUCTION

1. Armed Unmanned Air Systems – Present and Future

It has been suggested that the forthcoming Joint Strike Fighter will be the last manned jet fighter as in the future all UK air power could be delivered by unmanned aircraft. Armed Unmanned Air Systems (AUAS) - see note on terminology below - offer the UK the opportunity to employ air power more easily and cheaply. But the use of AUAS by the CIA in northern Pakistan demonstrates only too clearly that the proliferation of this technology will present new ethical challenges.

Piloted by operators located in bases that may be on the opposite side of the world, the aircraft can be flown across international frontiers to gather intelligence or deliver missiles and laser guided bombs with greater ease and precision and at less cost than manned aircraft\(^1\). The technology offers new possibilities in delivery of lethal force, reducing the risks as well as the political and financial costs of military intervention. The future will see increasing levels of automation with more decision-making power being devolved from the human operators to the Unmanned Aerial Vehicle (UAV)’s computer systems.

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<td>Popularly referred to as drones, remotely operated unmanned aircraft are known by a confusing array of labels and acronyms. In much of the literature Unmanned Aircraft Systems (UAS) is used and refers to the system as a whole encompassing, the aircraft, ground crew, remote pilot crew, and remote control centre where as Unmanned Aerial Vehicle (UAV) refers simply to the aircraft. Remotely Piloted Aerial Systems (RPAS) is an alternative often favoured by the UK Ministry of Defence (to emphasise the human control) while in the case of weaponised systems Unmanned Combat Aerial Vehicle (UCAV) can also be found.</td>
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This report adopts the term Armed Unmanned Air Systems (AUAS) to refer to the systems and their capacity for weapons delivery or, when referring to the aircraft only, we will use Unmanned Aerial Vehicle (UAV).

\(^1\) The Reaper Unmanned Aerial Vehicle, when fully laden with munitions, is able to fly for 14 hours at a time.
2. The Use of AUAS by the UK and its Allies.

The RAF’s armed UAV is the Reaper. A fleet of five aircraft (to be expanded to ten) is currently deployed in Afghanistan. The RAF personnel controlling the aircraft currently share the US Air Force’s facility outside Las Vegas but relocation to RAF Waddington is planned in 2012/2013 bringing direct real-time involvement in war-fighting from within our own sovereign territory. RAF Reapers have flown over 30,000 hours since their introduction in October 2007 and fired 200 missiles as of September 2011. David Cameron is reported to have disclosed that as of December 2010, 124 insurgents had been killed by strikes from RAF operated AUAS.²

The Ministry of Defence does not routinely disclose information on the nature of AUAS attacks in Afghanistan but we can surmise that they are used as air support for operations led by ground troops and as well as independently striking at targets (possibly tracking named individuals) as a part of a wider counter-insurgency strategy.

American AUAS operations in both Afghanistan and Pakistan are on a much larger scale and are known to regularly result in civilian deaths. It is likely that in Pakistan alone, a country that is officially a US ally, many dozens and perhaps many hundreds of civilians have been killed by CIA-operated Reapers. AUAS have enabled US armed intervention in Yemen and Somalia against targeted individuals. Elsewhere, Israeli armed UAVs operate in the skies over Gaza providing an almost continuous surveillance picture and striking against targets.

The global market for UAV’s is booming. As many as 50 countries are thought to have some form of UAV technology. China, France, India, Iran, Russia and Turkey are thought to be seeking the ability to fire missiles from UAVs³ and there are likely to be many others in their wake.

While the bare facts of these uses of AUAS can be set out in a few words, the ethical implications are wide ranging and complex, prompting a number of questions. Some concern the broad context of warfare, such as:

- Will the capacity to deliver lethal force with less risk to our own troops make armed intervention more likely?

² The Daily Telegraph, ‘British Troops could withdraw from Afghanistan before next Christmas’, 7 Dec. 2010
• What are the psychological implications of placing soldiers or pilots in locations so remote from the field of battle?

• Can targeted killings of named individuals be justified either legally or ethically?

• Ultimately how do AUAS serve the cause of justice and peace?

These wider contextual questions are the subject of our analysis in Section B. In Section C we explore further questions that relate more specifically to the nature of the technology its operation such as:-

• Do the systems provide a capability for precise targeting and, consequently, greater protection of civilians in war?

• Does the physical remoteness from the conflict protect AUAS operators from the awfulness and horror of war?

• What are the likelihood and the implications of armed robots operating autonomously in the future?

The nature of war has become more complex than ever with recent conflicts demonstrating a blurring between the lines of war and politics, peace and conflict, soldier and civilian, battlefield and safety. The just war tradition, which has provided the most extensively used framework for moral analysis of conflict, appears to be creaking under the strain of new realities. In recent years in Iraq, Pakistan and Afghanistan, the use of lethal force directed at identified individuals on a list has, by most accounts, been effective in the disruption of terrorist networks and armed insurgency groups. This raises the prospect that AUAS could become a weapon of choice in counter-insurgency and counter-terrorism operations, presenting ethical challenges. In framing a response, our premise is that by digging deep into the roots of the classic just war tradition and affirming its emphasis on seeking after justice we might be better positioned to address the variety of questions that face us today.

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4 Schulte, P, Going off the Reservation and into the Sanctuary (Published in "Just War on Terror? A Christian and Muslim Response" eds. Fisher, D and Wicker, B, CCADD)
B. THE CONTEXT

3. Seeking after Justice and Peace

We recognize that the challenges presented by insurgent conflict, terrorism and asymmetric warfare give rise to a widespread and growing concern as to whether the just war tradition will continue to provide an authoritative ethical framework for state conduct in armed conflict. This report does not seek to develop a new perspective on just war for our churches but rather draws on existing teachings and documents including the Methodist/United Reformed Church (URC) report “Peacemaking: A Christian Vocation”. The broad testimony of Christian tradition that can be traced back to Augustine through Isidore of Seville, Thomas Aquinas, Francisco de Vitoria, Francisco Suárez, and more, has helped provide the working group with some context for this study. We do not accept that traditional resources of moral reasoning as represented by the just war tradition are exhausted and take some time here to reaffirm aspects of the tradition that might help us today. We note that broadly speaking, the overall effect of classic just war reasoning has been to place limits on military action undertaken by the state, although not necessarily its prohibition. At its best, the judicially-minded just war tradition has refused to normalize political violence. It has recognized the moral involvement of every citizen in political decisions about war and political violence, and has at its heart judgment on wrong-doing, seeking after healing and the restoration of peace.

There is no golden age of the just war tradition that would meet all present-day needs if only it could be recovered. Deep ambiguity is present from the very outset of this tradition to the present-day. Even the saintly Ambrose (d. c. 397CE) who taught Augustine about preserving justice in dealings with enemies merged the interests of the Catholic Church in combating heresy with the military successes of the empire. We must accept that facing the challenge of peacemaking today requires Christian people to learn as much from the failings of the church as from less problematic aspects of its witness to Christ’s lordship. Killing was not seen as integral to the role of the state, but as demanded only in the darkest days.

At its heart, the classic just war tradition held to the principle that armed conflict, if it does occur, must be conceived as an ‘extraordinary extension’ of ‘ordinary acts of judgment’. A theft on the high-street calls for police action, judgment by a magistrate, and the requisite punishment. The same judicial mindset is required in response to aggressive invasions into

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5 See for example Schulte, P., Going off the Reservation and into the Sanctuary and Brough, Michael W., John W. Lango, Harry van der Linden, eds., Rethinking the Just War Tradition (Albany, NY: SUNY Press, 2007).
another nation’s territory or terrorist attacks upon the innocent. There must be an attempt to establish whether wrong has been committed, what is necessary for the punishment and restitution of this wrong, and what the requirements of future peace might be.

Today, we suggest that this judicial understanding of just war as an ‘extraordinary’ response to wrong-doing requires a default position in favour of adherence to international law. The real urgency is peace, and working out how best to develop and apply the broad framework of international law and human rights instruments for countering terrorism and building peace. Only in exceptional and limited circumstances is the use of force justified, and only having said this clearly and loudly can we then place in context the capabilities offered by AUAS.

4. **Terrorism and International Law**

Terrorists function outside the law. It is vitally important that the UK and its allies do not do so too.

Terrorism is a deplorable crime and inherently illegal as a means of armed conflict. The attacks of 11 September 2001, the Bali bombings in 2002, the Mumbai bombings in 2003, Madrid train bombings in 2004, London transport bombings in 2005, the many subsequent terrorist bombings in Pakistan and Yemen, as well as other examples, violate both international laws of war and internationally accepted human rights norms, and should be denounced as both immoral and illegal. Terrorism breaches the Geneva Conventions because of the deliberate targeting of non-combatants\(^7\) and threatens the dignity and security of human beings everywhere.

*Peacemaking: A Christian Vocation* made clear that wars cannot be fought against ‘Terror’.\(^8\) The terminology ‘war on terror’ slips unhappily between metaphorical ‘wars’ such as the war on drugs or homelessness and formal wars conducted under international law. When considering terrorism in the context of international law three points are important:

- there is a sound basis in customary international law for dealing with terrorists who like ‘outlaws’ flaunt the law that should protect us all.

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\(^7\) Fourth Geneva Convention, Additional Protocol I, 1977 (www.ICRC.org)

\(^8\) *Peacemaking: A Christian Vocation*, page 54
• the international community faces the particular challenge of bringing law to bear on terrorists who have migrated to jurisdictions that are incapable of (or unwilling to cooperate in) law enforcement; 9

• those prosecuting terrorism under national and international law are equally subject to that law as terrorists.

In the wake of the 9/11 atrocity the US government passed legislation 10 enabling the President to use military force to pursue those responsible. It is on this basis that the CIA has operated AUAS in a persistent campaign of targeted killings in northern Pakistan. Accurate figures for those killed are difficult to obtain but estimates suggest between 1,717 and 2,680 since 2004. 11 It is even more difficult to determine what proportion of those persons killed were militants, terrorists or civilians. Terrorists are not warriors and those suspected to be guilty of, or to be plotting, even the most dreadful of crimes need to be dealt with using an accountable judicial process.

Two US presidents have defended the policy of the use of missiles against individuals suspected of engaging in terrorism. The present administration states that the US applies international humanitarian law and the laws of armed conflict although it is human rights law that must apply outside of the context of armed conflict. The US administration admits that the laws of war require “translation” in order to be applied in the context of counter-terrorism. 12 However, no government possesses the freedom to unilaterally re-interpret customary international law. To do so in this manner risks undermining international order, potentially allowing any regime that might be inclined to act militarily beyond their jurisdiction to claim to be doing so under the guise of international humanitarian law. 13

We urgently require universal agreement on the application of international law to counter-terrorism and counter-insurgency operations. Meanwhile acting with restraint and in


10 Authorisation for the Use of Military Force – passed by US Congress on 14, September 2011


12 Harold Koh, Legal Adviser of the U.S. Department of State; (Speech given to the Annual Meeting of the American Society of International Law in Washington, DC, March 25, 2010); http://www.cfr.org/international-law/legal-adviser-kohs-speech-obama-administration-international-law-march-2010/p22300

13 Christof Heyns, UN Special Rapporteur on extrajudicial, summary or arbitrary execution; Presentation to the UN General Assembly, 20 October 2011 - “The use of such methods by some States to eliminate opponents in countries around the world raises the question why other States should not engage in the same practices. The danger is one of a global war without borders, in which no one is safe,”

5. \textbf{Could Remotely Operated Systems Make War More Likely?}

A UK Ministry of Defence Joint Doctrine Note on Unmanned Aircraft Systems asks whether by removing the horror of war, or at least keeping it at a distance, we risk losing some of our humanity and make war more likely.\footnote{The UK Approach to Unmanned Aircraft Systems; (Ministry of Defence Joint Doctrine Note 2/11, 30 March 2011)} War is as old as humanity itself and the Old Testament bears witness to its evils. The essence of war from that time until the present remains unchanged: the desire of one state, tribe or group to impose its political will on another. AUAS present political and military leaderships with the seductive ability to kill enemies at no risk to one’s own air crew. The Ministry of Defence Joint Doctrine Note speculates that the recent extensive use of unmanned aircraft over Pakistan and Yemen may already herald a new era. Without the new capability offered by such weapons systems it is unlikely that these interventions would have been undertaken at all. The use of conventional manned aircraft would have entailed greater risk and amplified the call for more specific national and international sanction for military intervention.

An illustration of the political calculus involved in the authorization of military action can be seen in President Obama’s decision not to seek Congressional approval of the Libya intervention at the requisite 60 days into the conflict, contrary to the advice of the Justice Department, Office of Legal Counsel. This is not the first time that a US President has skirted around the War Powers Act nor is it likely to be the last. What is notable on this occasion is the reasoning behind his decision. US air assets were crucial to the suppression of Libyan Air defences in the early stages of the conflict. 60 days into the conflict the US continued to employ Predator attack UAVs as a part of the ‘unique’ contribution that the US offers to NATO allies. Nevertheless President Obama reasoned that the US operations were distinct from the kind of hostilities envisaged by the War Powers Act as they did not ‘involve sustained fighting or active exchanges of fire with hostile forces, nor do they involve the presence of U.S. ground troops, U.S. casualties or a serious threat thereof’.\footnote{White House Report, \textit{United States Activities in Libya}, June 2011.} This re-interprets the War Powers Act in a new and novel fashion implying that it need not be
invoked in the cases of US support for a UN sanctioned intervention that uses military force, however deadly, by remote means only.

In assessing a possible military response to crisis we expect our democratically elected leaders to prioritise the requirements of justice while they are also presented with all manner of national and political incentives that cannot lay claim to the pursuit of justice or ‘right intention’. A reduction in the risks associated with the military option is likely to skew the political calculus.

Furthermore in an increasingly risk averse political culture the urge to adopt a mode of intervention that avoids risk of allied casualties will strengthen. Such thinking may escalate the risk to ‘enemy’ civilians if the option of intervention by conventional forces, such as the use of ground troops, is taken off the table.

C. CONSIDERATIONS SPECIFIC TO ARMED UNMANNED AERIAL SYSTEMS

6. Discrimination and Civilian Casualties

We turn now to questions more closely associated with this relatively new and rapidly developing technology. There is an obligation on parties engaged in war is to take all feasible precautions to avoid civilian casualties. Is the UAV a precise and discriminatory weapon?

It is likely that in Pakistan, a country that is officially a US ally, many dozens and perhaps many hundreds of people who were not intended targets have been killed by CIA-operated Predator UAVs. The disturbing number of civilian casualties in Pakistan results from an aggressive policy, opaque and apparently permissive rules of engagement on the part of the CIA and, deliberately, little public accountability.

In Afghanistan the civilian death toll from both airstrikes and night raids by troops inflame anti-Western sentiment and add to the political difficulties of the government of President Karzai. It is important to state clearly at this point that the rules of engagement and behaviour of International Security Assistance Forces (ISAF) with respect to the use of air

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17 Geneva Convention Additional Protocol 1, 1977, Article 57
18 See for example, The Year of the Drone; New America Foundation, www.counterrorism.newamerica.net/drones and Rt Revd Bishop Humphrey Peters, Diocese of Peshawar, Pakistan, Address to the Conference of the Methodist Church in Britain, 7 July 2011.
power in Afghanistan is markedly different to that of the CIA operation in northern Pakistan. The repeated witness that members of the working group have received from military personnel would indicate that in the course of standard combat operations\textsuperscript{19} UK forces go to great lengths to avoid civilian casualties, at times risking mission failure as a result. Nevertheless in 2011 United Nations Assistance Mission to Afghanistan (UNAMA) recorded 187 civilian deaths and 116 civilian injuries resulting from ISAF\textsuperscript{20} air strikes carried out by fast jets, helicopters or AUAS. This represents 53\% of all civilian deaths resulting from action by Pro-Government Forces.\textsuperscript{21}

The imagery available to the crews of Reapers and other UAVs is of relatively good quality (although this is dependent on weather and other factors). The number of available visual inputs through multiple screens provides a level of detail not available to a crew travelling in a fast-jet at high speed. The perspective presents challenges and like all aerial imagery requires skilled analysis which relies on good situational awareness and reliable intelligence data. The accuracy of the Hellfire missile combined with a relatively small blast radius enables the operator to predict its impact to a high degree. It could justifiably be argued that this does not make the weapon any more valuable from the perspective of ethics – only more useable.

There have been a number of tragic events when civilians have been mistaken for combatants and targeted. It would appear that poor situational awareness and faulty intelligence were key factors. The US Air Force has also acknowledged that operators have on occasions placed an undue confidence in the technology and consequently failed to ask crucial questions.

There is a legal obligation for military forces to report on civilian deaths.\textsuperscript{22} ISAF investigation teams do not make public the reports of investigations into incidents of civilian deaths. UNAMA suggest that prompt and public release of investigation findings would promote transparency, accountability and better relations with affected Afghan civilians and communities.\textsuperscript{23}

\textsuperscript{19} Night raids in Afghanistan are deeply unpopular and have been widely criticized for incurring collateral deaths on a regular basis.
\textsuperscript{20} International Security Assistance Force
\textsuperscript{21} During the months July to December 2011, See page 23, Afghanistan, \textit{2011 Protection of Civilians in Armed Conflict}, (UNAMA, Kabul, Feb 2012)
\textsuperscript{22} Breau, Prof S, et al \textit{Discussion Paper 2: Drone attacks, international law, and the recording of civilian casualties of armed conflict}, (Oxford Research Group, June 2011)
\textsuperscript{23} Afghanistan, \textit{2011 Protection of Civilians in Armed Conflict} (UNAMA, Kabul, Feb 2012)
7. The AUAS Pilot

It has been suggested that those charged with the control of AUAS might develop an unhealthy familiarity with killing by remote control. A former UK fast jet pilot who now ‘pilots’ a Reaper UAV denies that because he is 12,000 miles from the battlefield he will be detached from impact of his actions.

“We have the capability to see (unlike in a fast-jet) the effect of our weapon strikes in relatively close-up detail. Also, if the troops on the ground take photos of the strike effects they often send them to us as feedback. No matter how explicit these photos are I personally look at them all. Not because of some voyeuristic tendency but because I believe that if you cannot face the reality of what you do in killing a human being then you should not be part of that process.”

RAF operators of AUAS serve at Creech Air Force Base in Nevada initially for three years and are expected to live a strange double life. Whereas, their colleagues in manned aircraft are assigned to a tour of duty and then return home for a period of recuperation, the AUAS operator will each day combine the horror of war with everyday family life. A British UAV pilot was interviewed by Stephen Sackur for a BBC Radio 4 programme titled “Drone Wars”. He acknowledged the strangeness of being involved in killing and then going home to the family at the end of the day. He was asked whether he can ‘let it go’ even if it has been one of those days when he knows he has killed people.

“You’ve got to. Yeah, OK, it’s going to weigh on your mind. It does. I don’t think that you would be human if it didn’t. But ... I’ve got to be there for my family. So I deal with it .... Yeah I might be a little bit off, maybe in a bit of a strange mood for a day or so.”

These testimonies provoke questions for our churches as we seek to exercise a pastoral concern for those serving in the armed forces. While studies have been and are being undertaken to examine physical, emotional and psychological factors involved in the operation of AUAS, only the passing of time will reveal how many of their crews will develop symptoms associated with combat stress or Post Traumatic Stress Disorder.

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25 Drone Wars, Radio 4, Sunday 25 September 2011
It would be useful to explore further how, in the longer term, the experience of constant engagement in conflict might impact on those at the most critical point in the ‘kill-chain’. Whether the need to ‘deal with it’ for the sake of a normal family life might encourage a learned response whereby operators over time protect themselves from the emotional stress of killing and, if so, what impact such psychological conditioning might have on the propensity of the individual to critique the system within which they perform such a crucial role.

8. Increasing Automation

We can expect to see increasing automation built into UAVs. Some forms of autonomous operation, particularly in target identification and the firing of weapons, would cause us to face unprecedented ethical challenges. In the near future UAVs will be able to take-off, navigate to a destination, return and land without operator intervention. This should improve reliability by reducing the impact of a disruption to radio signals between the UAV and control centre. Technology is advancing so fast that some possibilities in the not too distant future sound more like science fiction. The UAVs of the future will come in all shapes and sizes, the smallest possibly resembling a dragonfly or large insect. Within 30 years we could see swarms of mini-UAVs communicating with each other, performing complementary roles and reconfiguring roles if individual units are taken out of operation, capable of target identification and autonomous weapons delivery and responding to and interpreting mission objectives rather than simple instructions.26

A crucial question concerns the circumstances under which we might trust a machine to identify a target and fire a weapon without human intervention. There is a great deal of research and ethical discussion on this point. It can be argued that un-distracted by emotions of vengeance or fear and capable of processing information faster than humans, future robot weapons systems could display more consistent ethical behaviour than their human counterparts. In a very different age Augustine (reported by Aquinas) acknowledged the dangers of such human failings, “the passion for inflicting harm, the cruel thirst for vengeance, an unpacific and relentless spirit, the fever of revolt, the lust of power, and

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26 *The UK Approach to Unmanned Aircraft Systems*; (Ministry of Defence Joint Doctrine Note 2/11, 30 March 2011)
suchlike things, all these are rightly condemned in war”.\textsuperscript{27} But while the robots of the future might be able to demonstrate discretion, the capacity to show empathy or mercy is different altogether and maybe for this reason as much as any other the autonomous operation of weapons systems is a red line that should not be crossed. On a more immediate and practical level we acknowledge the very difficult balance of risks and ethical judgements that we expect our forces to make and the skill and expertise brought to this task, sometimes under the most trying circumstances. Thus there is a broad consensus that for the foreseeable future authority to fire a weapon must involve human interaction – the so-called ‘human in the loop’.

As systems become more automated the crucial question is how the human in the loop perceives and executes their role. With an increasing amount of data available might the operators become swamped? If data gathering becomes more systematised with more people involved in the ‘kill-chain’ does the scope for individual questioning, for example concerning the evidence that a person or object is a legitimate military target, reduce? These are questions that at this stage we raise as matters for further study, aware that they are also being asked elsewhere.

D. CONCLUSION

9. Some Key Considerations

Our approach has been to engage with the reality that AUAS are here to stay while remaining committed to biblical teaching that ‘Peacemaking is at the heart of the teaching of Jesus, not an optional extra’.\textsuperscript{28} The tension that this creates is not easily overcome. The conclusions recorded here are by no means a final destination – much more could be said. But for now we highlight the following aspects: -

The seductive attraction of AUAS – The ease at which AUAS can be deployed gives rise to real ethical concern. We must constantly project our minds forward a decade or two to a point when the technology and precision weaponry are likely to have proliferated with many more States as well as non-State actors gaining access. Our nervousness in this respect is not helped by apparent uncertainties over how to apply national and international legal

\textsuperscript{27}Thomas Aquinas, \textit{Summa Theologia}, II-II, q. 40, a. 1, c. Citing Augustine, Contra Faustum, xxii, 74 (www.newadvent.org/summa/3.htm)
\textsuperscript{28}The Methodist Church and the United Reformed Church, \textit{Peacemaking: A Christian Vocation} (published Trustees for Methodist Church Purposes and the United Reformed Church, 2006), page 24.
frameworks that have served hitherto to delineate and limit the use of lethal force by the State. There exists a danger that the political ease with which these systems can be deployed, and their future potential to deliver even more precise effect, might encourage the normalization of the use of violence in response to crisis and conflict. We might begin to address this by paying critical attention now to the use of AUAS in the context of insurgency noting that their persistent use in civilian areas tends to inflame sentiment and undermine support for government.

Given the potential for global expansion of the AUAS market is vital that churches and their members are informed and involved in debate of these issues.

**International law and targeted killings** – The UK’s position on terrorism\(^{29}\) (and indeed that of almost all member states of the UN) is that the rules of armed conflict cannot be invoked against terrorists outside of a situation of armed conflict. Our government is placed in a deeply ambiguous position with respect to the US AUAS attacks in northern Pakistan and Yemen. We work closely with the United States in the operation of AUAS. The US and UK are the two largest contributors to ISAF forces in Afghanistan and cooperate closely in intelligence operations in northern Pakistan. There is evidence that the US operations in northern Pakistan encourage extremism and result in increased recruitment to terrorist groups.\(^{30}\)

It is clearly in the interest of justice that those suspected of carrying out or organising terrorism are brought to account. Nevertheless international law has normative content that remains important in safeguarding the international community from descent into arbitrariness and the uncontrolled use of brute force. The targeted killing of named individuals outside the context of an armed conflict is a form of lawlessness that imperils us all. It is in our national security interests to uphold the basic accepted norms in international law and to work to ensure cohesion in approach among our international partners.

**Accountability under law** – Greater openness and accountability on the part of military forces would help to clear some of the fog that surrounds the systems and their use. We have noted the recommendation that prompt and public release of ISAF investigations into incidents involving civilian casualties from all air strikes (by manned or unmanned aircraft)

\(^{29}\) This understanding was stipulated as a part of the UK’s acceptance of the 1977 Additional Protocol 1. O’Connell *Seductive Drones: Learning from a decade of Lethal Operations.*

would improve relations with affected Afghan civilians and communities.\textsuperscript{31} Greater transparency would also help to resource public understanding and debate. Without public trust and accountability fears may increase that rather than being masters of technology, the technology may come to master us.

\textsuperscript{31} Afghanistan, \textit{2011 Civilian Causalities Report} (UNAMA, Kabul, Feb 2012)
BIBLIOGRAPHY

Barnes, O (ed.), *Air Power: UAVs: The Wider Context*, (Royal Air Force, Directorate of Defence Studies)


Cole, C, *Drone Wars Briefing 2012* (Drone Wars UK)

*Convenient Killing: Armed Drones and the Playstation Mentality*; (Fellowship of Reconciliation)

Koh, H, Legal Adviser of the U.S. Department of State; (Speech given to the Annual Meeting of the American Society of International Law in Washington, DC, 25 March 2010);


*Peacemaking: A Christian Vocation* (The Methodist Church and United Reformed Church, 2006)
http://www.jointpublicissues.org.uk/jpitpeacemaking.htm

Quintana, E, *The Ethics and Legal Implications of Military Unmanned Vehicles*; (RUSI Occasional Paper)


Schulte, P, *Going off the Reservation and into the Sanctuary* (Published in "*Just War on Terror? A Christian and Muslim Response*" (eds. Fisher, D and Wicker, B, CCADD)


*Targeting Operations with Drone Technology: Humanitarian Law Implications*; (Columbia Law School, March 2011)

*The UK Approach to Unmanned Aircraft Systems*; (Ministry of Defence Joint Doctrine Note 2/11, 30 March 2011)
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