

APPG REPORT ON THE PSYCHOLOGICAL IMPACT OF DRONES.

Introduction.

The justifications and motivations for the use of armed unmanned aerial vehicles, or drones, are contested. The Ministry of Defence (MoD) in their *Joint Doctrine*, point to their: “desire to deliver new or enhanced capability by embracing new technology while reducing costs and the threat to personnel”.¹ A sentiment echoed in the *Strategic Defence and Security Review* (2011), which argued for “a range of unmanned air systems to complement our strategic ISTAR assets and reduce the risk to our forces of operating over hostile territory”², and in recent Parliamentary Questions.³ This narrative values terms such as precision, clinical, accurate and discriminate. These positive assertions are countered by those opposed to the use of this technology. The emphasis here is on the number of civilian casualties, the contribution made to radicalisation and further violence, the proliferation of conflict and the negative impact on international legal frameworks, among other issues.⁴ Recently, there has been growing concern at the psychological impact of this technology on both civilian populations and those who operate it.

The impact of drone use on civilian populations formed the focus of the meeting of the All Party Parliamentary Group on Drones on 5 March 2013.⁵ This report includes a summary of these presentations and the subsequent discussion, details of a press conference held by John Hemming MP on this issue and a briefing on the psychological impact upon drone operators and a consideration of the impact of the UK’s use of drones in Afghanistan and drone testing in Wales.

THE IMPACT IN PAKISTAN, JENNIFER GIBSON, FORMERLY OF THE *LIVING UNDER DRONES* PROJECT.

Jennifer Gibson began by providing the background to the Living under Drones project. In September 2012, Stanford and NYU Universities published a report detailing the impact of U.S. drone strikes in Pakistan. The report was the product of nine months of intensive research and is the most comprehensive report to date on what it means to be living under drones. The research included two investigations in Pakistan, over 130 interviews with victims, witnesses, and experts, and a review of thousands of pages of documentation and media reporting. The research team began the investigation expecting to focus on civilian deaths and injuries caused by drone strikes. As the research progressed, however, a common theme that repeatedly arose was the significant psychological impact of the use of this weapon.

Jennifer Gibson noted the limitations of the research methodology. These included the fact that these strikes occurred in a relatively inaccessible region of Pakistan thus attending the actual drones strike area was not possible; the need to rely on victims to travel to share information; and the difficulties in gaining the perspective and experiences of women, due to strict gender segregation.

-
- 1 Ministry of Defence, Joint Doctrine Note, 2/11: The UK Approach to unmanned aircraft systems, (JDN 2/11), dated 30 March 2011, p. 1-2.
 - 2 Cabinet Office, Strategic Defence and Security Review (2011), p. 26.
 - 3 Hansard, 29 January 2013, Column 739W.
 - 4 See, for example, research by [Drone Wars UK](#); [Bureau of Investigative Journalism](#); [Reprive](#) and others.
 - 5 Please note that due to the last minute absence of the Chair, this meeting is not considered, under the rules governing APPGs, to be an official APPG meeting.

The research found that the impact of drones was manifesting itself in a number of ways including a reduced willingness for local people to attend the scene of attacks and an erosion of community trust. The psychological impact of drones stemmed from their constant presence, compounded by the fact that those below didn't know the targeting criteria or when the drones would fire their missile. Local people had developed a new word, 'bangana' meaning buzzing bee, to reflect the constant sound of the drones.

Jennifer Gibson referred to the comments of David Rohde, a *New York Times* reporter kidnapped in Afghanistan (later transferred to Pakistan), who heard drones during his captivity. He said: "The drones are terrifying. From the ground, it is impossible to determine who or what they are tracking as they circle overhead. The buzz of a distant propeller is a constant reminder of imminent death."

Providing a number of quotes from those affected, she explored the range of consequences for those living under drones. One man said:

Everyone is scared all of the time. When we're sitting together to have a meeting, we're scared there might be a strike. When you can hear the drone circling in the sky, you think it might strike you. We're always scared. We always have this fear in our head.

The consequences of drone use on communities and individuals included emotional breakdowns; running indoors or hiding when drones appear above; fainting; nightmares and flashbacks; hyper startled reactions to loud noises; outbursts of anger or irritability; loss of appetite; and insomnia. The solutions sought by local people were broad. Anecdotal evidence found, in extreme cases, women were being locked in rooms as a method of containing the affect of the psychological trauma (screaming, for example). Many were now using anti-anxiety medication, anti-depressants or tranquilizers. This was significant as medical facilities in the region were limited, meaning victims had to undertake relatively arduous journeys to access medical treatment. She also explored the broader impact on the community, for example, noting the fact that people had stopped socialising together and children had stopped attending school. Congregating in groups, for example at weddings or at community meetings (jirgas) was considered risky behaviour.

She ended her presentation with a quote from a Pakistani Mental Health Professional, who said

The biggest concern I have . . . is that when children grow up, the kinds of images they will have with them, it is going to have a lot of consequences. You can image the impact it has on personality development. People who have experienced such things, they don't trust people; they have anger, desire for revenge . . . So when you have these young boys and girls growing up with these impressions, it causes permanent scarring and damage.

About the speaker. Jennifer Gibson is a co-author of *Living Under Drones*, written while she was a member of Stanford's International Human Rights and Conflict Resolution Clinic. In addition to her work with the clinic, Jennifer has extensive experience in children's rights, rule of law and development in sub-Saharan Africa. She has also worked on human rights litigation in both domestic and international courts, including at the Special Court for Sierra Leone in The Hague. She is currently a staff attorney at Reprieve.

THE IMPACT IN YEMEN: DR PETER SCHAAPVELD, FORENSIC PSYCHOLOGIST.

Dr Peter Schaapveld began by explaining the background to his research. He was invited by the UK-based charity, Reprieve, to accompany the organisation on a fact-finding mission to Yemen from 9-16 February 2013. During the trip, a number of interviews were conducted with civil society, journalists and government about on-going drone use and other kinetic activity in the country. In addition to the interviews, a three-day clinic was arranged in Aden from 13-15 February, during which victims of air strikes in Yemen were interviewed.

In total thirty-four persons were interviewed during the three day clinic with the assistance of a translator. Twenty-five were male; one adult female and eight children. Dr Schaapveld highlighted the fact that given the security situation in Yemen broadly, and particularly in the affected region, it was likely that only the most robust individuals attended the clinic; those most severely affected were unlikely to be able to make the journey. Thus it would be logical to assume that there would be an increased severity of symptoms in the general population effected by strikes.

For nearly all of the subjects, the triggering incident for the resulting abnormal mental health condition was an air strike. All continue to be affected by, and prevented from recovery by, the presence of drones. Throughout the week, people reported different levels of drone activity, often dependent upon where they were based in the country. Reports varied from the near constant presence of drones to drones flying on a circuit that passed overhead anywhere from once every seven minutes to once every forty-five minutes.

In terms of results virtually all interviewed were found to be suffering from formal abnormal psychological conditions. The majority (71%) were found to be suffering from 'full blown' Post Traumatic Stress Disorder (PTSD); 91% suffered from significant symptoms of PTSD. Other severe abnormal psychological conditions were found including Anxiety, Depression, dissociative experiences, panic reactions, hysterical-somatic reactions, exaggerated fear responses and abnormal grief reactions.

The impact on children of drones was particularly worrying. Dr Schaapveld found that those examined were suffering from attachment disorders (either clinging to parents or behaving in an aloof and emotionally disconnected manner). They exhibited specific phobias for aircraft and a generalised fear of loud noises. Hypervigilance was common as was a lack of concentration, a loss of interest in pleasurable activities and infrequent or non-existent school attendance. Children were reported to exhibit emotional problems being emotionally labile and easily irritated and angry. This latter symptom led both to family and school disruption.

He then moved to some vignettes of those he examined. First was the case of Yasmeen (not her real name), aged eight. Before a strike hit the house next door she was a keen student and would often study for over an hour. After the strike she has been restless and unable to concentrate on studying for more than 5 to 10 minutes. She is also resistant to attending school. She is hyperactive and argumentative, has hallucinations and dreams of chaos and dead people. She frequently vomits at the sounds of drones and airplanes; indeed she vomited as she passed the airport on her journey to the clinic. Jamil (not his real name) was seven years old and had experienced air strikes since 2012. He regularly woke up screaming, and was startled by loud noises. He was said by both his father and his teachers to be frequently 'spaced out' which appeared clinically as dissociative re-experiencing of the original trauma (a severe symptom of PTSD). He was now doing poorly at school. Murad (not his real name), aged 17, often re-

experienced the trauma of watching his friend burn to death after a drone strike. He told Dr Schaapveld that he and his friends used to be interested in Western fashion, music and films but had now lost all interest. He appeared withdrawn. Dr Schaapveld made the point that emerging research has shown that PTSD in children is associated with observable (neuro-imaging) alteration to their developing brains thus leaving permanent organic damage.

Dr Schaapveld believes it is possible the trauma found in Yemen, and perhaps Pakistan, is a new form of PTSD. He argued that while the symptoms were the similar to normal PTSD, the difference arose with the constant retraumatisation of those affected. He commented on the sample of those examined and noted that this was a case series and not an experimental selection.

With regard to the perception of Yemen held by those examined, Dr Schaapveld heard comments such as: "Yemen has no future in presence of drones"; "The strikes are collective punishment for the acts of a few"; "the United States and Yemini Governments know where al-Qaeda is and they are targeting civilians instead"; "the Yemeni Government are allowing the attacks to force civilians into the hands of al-Qaeda and then giving them a reason to attack".

Dr Schaapveld concluded with a reference to research from the Holocaust which has showed that PTSD has trans-generational staying power when inflicted on a community-wide scale. He commented that Yemen was at high risk of a similar impact.

About the speaker. Dr Peter Schaapveld is a Clinical Psychologist and Forensic Psychologist registered with the British Psychological Society and the United Kingdom Health Professionals Council. He has academic qualifications in Clinical Psychology and Law and has practiced as a Clinical Psychologist for twenty four years (twenty years in the NHS). His professional practice has taken place in all mental health settings; (i.e. mental health hospitals, primary care, prisons, and community) and he has extensive experience of Psychological assessment and Psychological treatment for a variety of acute and enduring mental health problems. He is former visiting lecturer in psycho-legal issues for the professional Doctorate in Clinical Psychology at Royal Holloway College, University of London and provides regular seminars and training events for mental health professionals on psycho-legal issues.

DISCUSSION.

The meeting then moved to a discussion around the issues raised in the presentations. Highlighting previous experiences in the Second World War, a question was asked as to whether the aerial aspect of drone use was an intentional part of the "toolkit of warfare." Jennifer Gibson responded that her understanding from professionals is drones do not need to fly low enough to be heard or seen, yet communities are reporting that this is exactly what is happening. Additionally, she noted that everyone spoken to during the research mentioned the impact of buzzing, which was constant, and was substantive enough to be heard even indoors. This led to another contributor highlighting the range of drones available to the military and the different heights at which they fly. The contributor stated that, based upon established military doctrine and the findings in the Stanford/NYU report of constant aerial presence, the use of the aerial impact of drones could be seen as a method of showing military presence or strength.

A question was asked as to the impact of drones on drone pilots. Jennifer Gibson pointed to forthcoming research highlighted in the *New York Times*. [See also consideration of this issue further in this report at page 7].

Exploring Dr Schaapveld's research, a question was asked as to how participants were found for the study. The participants came from Southern Yemen; for accessibility reasons, they came from a one hour drive from the city of Aden, where the clinic was held. Concern was highlighted at the lack of psychological support available to victims broadly, and those seen in the clinic particularly. Dr Schaapveld advocated that attendance at the clinic was beneficial for victims even if there was not the option of more substantive psychological care. Jennifer Gibson added that it should be noted that in Pakistan there was a feeling of constantly living under attack, much like one would feel if they actually lived in a warzone. It was also noted that, as in Pakistan, the area currently under attack from drones in Yemen was expanding.

Commenting on the anger caused by the attacks, a question was asked as to where this anger was channelled, for example, toward the US. Dr Schaapveld commented that he did not explore this issue in detail but did note that some of the anger was being directed at the Yemeni Government for allowing the attacks to happen. Some felt it was the Yemeni Government's responsibility to stop the attacks. There was also a feeling that the Yemeni Government was unable to halt the attacks. Referring to her research in Pakistan, Jennifer Gibson noted that the researchers found a mixed reaction when it came to feelings towards the US. When asked if there is a message they would like researchers to take back, most said "please ask them to stop" and "it is not working".

In response to a query about the targeting of individuals and intelligence, Jennifer Gibson, noted that this was a grey area. Communities, as well as the *New York Times*, were reporting stories of "chips" used to help the drone identify who to target. People in the community were reportedly paid to place the "chips" on the doorsteps of militants. However, communities reported that these people were instead placing the "chips" on the doorsteps of people with whom they had feuds. It was safer to do this than to place the chip on the doorstep of an actual militant. Jennifer Gibson noted that while many of those interviewed referenced the "chips", the study was unable to establish the veracity of these claims. What they were able to establish was that the mere belief that these "chips" existed was undermining community trust. Local communities were becoming fearful and suspicious of their neighbours; further, this was undermining the Pashto code of honour, which strongly emphasised hospitality to strangers. People were now reluctant to welcome people into their homes.

A question was asked as to how those undertaking research in Yemen were able to differentiate between drone strikes and missile strikes from an aircraft. Dr Schaapveld pointed out that the main focus of his research was the psychological impact and thus he had not explored this issue particularly in-depth. It was pointed out by a participant at the meeting in Yemen that there was some confusion amongst local people as to the method of attack on occasion but that improvements were being made to try and establish the facts on the ground. It was also noted that the impact of the drones was felt further by the fact that they circled overhead continually, unlike airplanes.

In response to a question about how this research was being publicised, Dr Schaapveld commented that a formal report would be forthcoming and that there had been interest from a number of news channels in the story. In relation to the NYU/Stanford report, Jennifer Gibson noted that she was unaware of any plans by Stanford and NYU, as she was no longer with the Stanford clinic that conducted the project. However, Reprieve, a

London-based legal charity, was looking to conduct more detailed, in-depth research on drone use in Yemen.

Broadening the discussion, a question was asked about fears in Pakistan about drone use expanding to other parts. Jennifer Gibson highlighted the 2014 withdrawal from Afghanistan and the rising concerns about this in the country, particularly what the US's plans were for drones post-withdrawal. A further question focused on the relationship between drone use in Pakistan, the current government's support for drones, and the forthcoming elections. Jennifer Gibson commented that allegations of Pakistani consent for drones are based upon a 2008 cable released by Wikileaks. Since then, there has been no evidence of consent and, in fact, in the past year, the government has been increasingly vocal in its opposition. Recently, they even raised the issue at the UN Human Rights Council. Drones were a key issue in the elections and that this would have an impact on their further use.

APPG PRESS CONFERENCE.

The APPG meeting followed on from a press conference held earlier in the day. Chaired by John Hemming MP, Treasurer of the APPG, Dr Schaapveld presented his findings to the media together with Ian Cameron, who spoke about his experiences of living with 'Doodlebugs', during the Blitz in the Second World War in London.

John Hemming MP opened the event by making the distinction between surveillance drones and armed drones, in both their purpose and their outcome. Reference was made to his recent contribution on drones to the Dialogue feature of *House* magazine, in which two MPs debate a key issue via email. This was indicative of the rising prominence of drones and significance of the debate around their use. He pointed to the need for a consideration of the objectives and outcomes of drones use in an asymmetric conflict. He also highlighted the concern that the use of this weapon was fuelling terrorism through a desire for revenge. A further area of concern was the idea that the use of drones could be considered collective punishment and that such punishment was illegal in international law and counter-productive. Outlining the purpose of the APPG, he noted that the Group was concerned that legislation needed to catch-up with the technology in relation to the use of drones for extra-judicial executions. This was particularly significant as the current procedure of its use caused indiscriminate harm to civilians, a tactic usually employed by terrorist groups. He concluded by saying that: "I think the use of armed drones is not reducing the amount of terrorism. I think it is maintaining it or maybe even increasing it. We want to have a strategy that achieves peace in the world."

Ian Cameron was born in 1938, and lived in Clapham, London for the duration of the war. He was keen to point out that he was not a 'Doodlebug' expert and was just going to recount his own personal experiences. He highlighted the use of censorship by the Government as to the actual frequency and operation of doodlebugs.

On the 24th June 1944, he was outside the Hope and Anchor pub, close to his home, with his father when he heard the air raid siren. He dropped to the ground. He peeped through his arms, he watched a plane fly lower and lower towards him. He heard the 'Doodlebug', the engine cut out and the bomb fell close by. He returned home to check on mother and two sisters. He found that they were ok as they had been in the local park at the time of the attack but the family flat was decimated. He remembers seeing an 83 year old woman named Rose sitting outside, badly hurt. Her head was bloody and bandaged. On many occasions, he said he had to run in a frantic panic with his parents and sisters to shelters, for example, on the platforms of the nearby Clapham North Tube

Station. The family were moved to a requisition flat in Oval. He commented that “it was a fluke we weren’t killed, we were very traumatized.”

BROADER PSYCHOLOGICAL ISSUES RELATING TO DRONES.

A number of questions have been asked about the impact of drones use on drone operators. This is addressed below.

The psychological impact on drone operators.

There is limited evidence based research on the psychological impact of drones upon those who operate them. The Ministry of Defence made reference to the need to consider this issue within their broader examination of the legal, moral and ethical consequences of drone use in their *Joint Doctrine*, where they questioned, “do we fully understand the psychological effects on remote operators of conducting war at a distance?”⁶ This issue was further highlighted in a response to a Parliamentary Question from Mark Pritchard MP on 15 November 2010, where it was stated that the MoD was undertaking a local psychological study of the impact of combat drone use on drone pilots.⁷ The response also noted that “Historically, the RAF Medical Services have not detected any instances of acute stress reaction in any pilot responsible for the operation of UAVs”.

In the autumn of 2012, a Freedom of Information request was submitted asking for a copy of an RAF study into the psychological health of drone pilots. After substantive delay, a response was received from the Ministry of Defence. This response stated that the study was undertaken in conjunction with another government and that the copyright of the report remained with this other government, prohibiting the MoD from providing the APPG with a copy. A further request has thus been submitted to the MoD to ask them to apply for permission from this unnamed government.

In December 2012, the Minister for Defence Personnel, Welfare & Veterans stated that:
Regarding psychological considerations, experience of operating the Reaper Remotely piloted Aircraft System (RPAS) suggests that far from being detached from the reality of the situation, Reaper aircrew are just as, if not more, connected to the situation on the ground as compared to operators of other aircraft types. ...⁸

Though there was no comment on the impact or consequences of this experience on drone operators within this answer. However, in response to a further question by David Anderson MP, it was noted that,

The RAF Reaper Remotely Piloted Air Systems (RPAS) force, alongside other frontline forces, has robust Trauma Risk Management strategies in place to ensure this is continually monitored. The RAF Medical Services have not detected any adverse psychological and physical trends for RAF pilots of RPAS.⁹

Some research has been undertaken in the United States by the USAF School of Aerospace Medicine. However, all of this research is focused on those operating drones for the US military rather than the CIA, which is the organisation currently undertaking

6 Ministry of Defence, *Joint Doctrine Note 2/11 The UK approach to unmanned aircraft systems* (March 2011), p. 5-8.

7 Hansard, 15 November 2010: Column 564W.

8 Hansard, 6 December 2012: Column 901W.

9 Hansard, 25 February 2013: Column 38W.

drone strikes in Pakistan, Yemen and Somalia. A 2011 study entitled *Psychological Health Screening of Remotely Piloted Aircraft (RPA) Operators and Supporting Units* examined significant numbers of Predator/Reaper operators, Global Hawk operators and non-combatant airmen supporting drone operations for 'burnout'.

The results of the study revealed the main sources of occupational stress were operational (i.e., long hours, low manning, shift work, human-machine interface difficulties, geographical location of work, concerns regarding career profession and incentives). Compared to noncombatants, Predator/Reaper operators had a higher incidence of emotional exhaustion while levels of cynicism (negative work attitude) and professional efficacy were lower. ... The results of this study suggest there is a high incidence of emotional exhaustion/fatigue among RPA operators as a group in comparison to noncombatant airmen. Efforts to reduce occupational burnout should focus on operational stressors and be equally devoted to weapon and nonweapon-deploying RPA operators.¹⁰

A second study which surveyed 426 officer and enlisted operators (pilots and sensor operators), between 2010 and 2011 found that:

Although a wide range of stressors may contribute to elevated levels of burnout, the majority of occupational stress was reported to stem from operational stress and not exposure to combat (e.g., live video feed regarding the destruction or death of enemy combatants and ground forces). In general, the results revealed that active duty operators are more than twice as likely to suffer from the facets of occupational burnout involving emotional exhaustion and cynicism. Active duty as well as National Guard/Reserve operators attributed shift work, shift changes, hours worked, and simultaneously serving as a warfighter in theater while returning home and managing domestic roles and responsibilities at home to their burnout levels. Aeromedical recommendations include reducing operational hours, reducing frequency of shift changes, reducing the length of assignments, providing clear guidance and opportunities for competitive career progression, improving human-machine interfacing within the ground control station, marital and family enrichment opportunities, as well as periodic psychological health assessments to mitigate the risk of burnout among RPA operators.¹¹

This research indicates a relatively negligible impact on those involved in their use. In other words, it is the conditions of employment, rather than impact of using drones per se which seem to be problematic.

However, this view is challenged, on an anecdotal level, by an article in December 2012 in *Der Spiegel* magazine which interviewed a US drone pilot who had subsequently developed PTSD as a result of his experiences.¹² Most recently, media coverage of a

10 Wayne Chappelle, Psy.D., ABPP; Amber Salinas, M.A.; Kent McDonald, LtCol, USAF, MC, FS : USAF School of Aerospace Medicine, *Psychological Health Screening of Remotely Piloted Aircraft (RPA) Operators and Supporting Units*, *Psychological Health Screening of Remotely Piloted Aircraft (RPA) Operators and Supporting Units*, (2011), p. 19-11

11 Joseph A. Ouma, Lt Col, USAF, MC, FS ; Wayne L. Chappelle, Psy.D., ABPP ; Amber Salinas, M.A.; *Facets of occupational burnout among US Air Force Active Duty and National Guard/Reserve MQ-1 Predator and MQ-9 Reaper operators*, (2011), p.14.

12 Nicola Abe, *Dreams in Infrared: The Woes of an American Drone Operator*, *Der Spiegel*,

forthcoming study from the US Department of Defence, indicates that rates of conditions such as anxiety disorder, depressive disorder, post-traumatic stress disorder, substance abuse and suicidal ideation were the same as for pilots of manned aircraft, deployed in Iraq or Afghanistan.¹³ This report will be published at the end of March 2013. However, there are more subtle aspects to drone use which resonates with questions such as what it means to participate in conflict, how the armed forces construct their identity and their role in society, both nationally and internationally. As noted in the RAF Directorate of Defence Studies' examination of Unmanned Aerial Vehicles:

To be humanistic, war and warriors must respect the enemy; not necessarily their ideas or methods, but their humanity. Yet respect requires personal engagement at some level.... This raises the question of whether unmanned vehicles, whose operators can only experience war through a datalink, are in any meaningful sense involved in a "dialogue" with their adversary. Does the UAVs inherent lack of personal engagement encourage a lack of respect for one's enemy and through that, a dangerous degree of detachment?¹⁴

A Medact report, published in 2012, on the physical and psychological implications of drones, further acknowledged this idea:

All the aspects of battle, which normally enhance self-esteem and engender the esteem of others, are absent and there is the potential for this work to erode the self-image of the drone operator as well as the image of the war hero in the public mind."¹⁵

In this respect, the rise of the concept of drone pilots as suffering a 'playstation mentality'¹⁶ assisted by a US recruitment campaign for drone pilots which uses a simulated computer game to attract candidates¹⁷, can only undermine the professional standards upon which the RAF pride themselves and which is central to their public standing.

Taken further, the perception of the drone has an impact on how the US and UK are seen in the countries in which this weapon is used; a consideration examined the MoD's *Joint Doctrine*.

The counter-insurgency operation must be perceived as ethically sound, above reproach, and the ill-considered use of armed unmanned aircraft offers an adversary a potent propaganda weapon. This enables the insurgent to cast himself in the role of underdog and the West as a cowardly bully – that is unwilling to risk his own troops, but is happy to kill remotely.¹⁸

14 December 2012, <http://www.spiegel.de/international/world/pain-continues-after-war-for-american-drone-pilot-a-872726-3.html>

13 James Dao, *Drone Pilots are Found to Get Stress Disorders Much as Those in Combat Do*, New York Times, 22 February 2013.

14 Ed Owen Barnes, *Air Power. UAVs: the Wider Context*, <http://www.airpowerstudies.co.uk/UAV-Book.pdf>, p. 95

15 Medact, *Drones: the physical and psychological implications of a global theatre of war*, (2012), p 8.

16 See, Drone Wars UK, *Convenient Killing: Armed Drones and the 'Playstation' Mentality*, (2010).

17 See, for example, <http://www.aolnews.com/2010/08/19/air-force-working-on-video-game-to-recruit-drone-pilots/>

18 Ministry of Defence, *Joint Doctrine Note, 2/11: The UK Approach to unmanned aircraft systems*, (JDN 2/11), dated 30 March 2011, p. 5-10.

This is particularly significant from the perspective of winning “hearts and minds” in Afghanistan and making a positive contribution to the stabilisation of the state, and the region more broadly. Aliya Robin Deri, in her paper *“Costless” War: American and Pakistani Reactions to the U.S. Drone War* explored the concept of honour and the negative relationship this concept has with use of drones. Drone operators are devalued and the local perception of the United States is undermined, making intervention in Pakistan to inhibit terrorist activity, counter-productive.¹⁹

THE IMPACT OF UK DRONE USE ON CIVILIANS.

The research presented to the APPG focused on the use of Predator drones by the United States. However, consideration must also be given to the use of Reaper drones by the UK, in Afghanistan and elsewhere, and any negative psychosocial impacts which may occur as a result of this use.

In response to a Parliamentary Question, querying the assessment made by the Ministry of Defence of the impact of unmanned aerial vehicle strikes on the mental health and wellbeing of civilians in Afghanistan, the Minister for Defence Personnel, Welfare & Veterans, Andrew Robathan, stated that

We have no reason to believe that aerial strikes from whatever platform have had an adverse effect in general on the mental health and wellbeing of civilians in Afghanistan. Weapons released by the UK's Reaper Remotely Piloted Aircraft System are no different to those from other airborne platforms. Attacks are carried out under the command of a pilot bounded by Rules of Engagement which are no different to those used for manned combat aircraft. Targets are always positively identified as legitimate military objectives and strikes are prosecuted in accordance with the Law of Armed Conflict and UK Rules of Engagement.²⁰

A subsequent question by Lord Hylton requesting an assessment of the impact of frequent drone flights on the civilian populations of parts of Pakistan and Afghanistan, particularly on children, elicited a similar response.²¹ This emphasis on the Rules of Engagement, while potentially positive from the perspective of the legitimacy of the use of the force, belies consideration of the broader, less violent, impact of this technology. This may be, in part, a result of the limited available information due to the inherent difficulties in data collection.

However, this approach seems to be at odds with the more strategic conception of the UK's use of this technology. For example, as outlined by the RAF's *British Air and Space Power Doctrine*, “Air power is essential in underpinning the moral component of the Joint Force's fighting power, particularly because of its psychological impact”²² and provides “a very effective lever against an opponent's cognitive domain.”²³ Further:

“The psychological impact of air power, from the presence of a UAV to the noise generated by an approaching attack helicopter, has often proved to be extremely

19 Aliya Robin Deri, *“Costless War”: American and Pakistani Reactions to the U.S. Drone War*, *Intersect: Stanford Journal of Science, Technology and Society*, Vol 5, 2012.

20 Hansard, 18 December 2012, Column 707W.

21 Hansard, 8 January 2013, Column WA18.

22 Royal Air Force, *British Air and Space Power Doctrine*, AP3000, 4th Edition, <http://www.raf.mod.uk> p. 26.

23 Ibid. p. 54.

effective in exerting influence, especially when linked to information operations.”²⁴

According to the MoD website, the Reaper is: “Capable of providing a persistent presence over an area of interest and powered by a Honeywell engine that offers a **low noise signature** for discreet operations,”²⁵ (emphasis added). To improve assessment, it would be useful to know how the concept of ‘low noise signature’ is defined and how it compares to the sound of the Predator drone used in Pakistan and Yemen. However, it may well explain why the sound impact of drones used by the UK may be hard to establish. A journalist for the *Daily Telegraph*, who heard UK drones at base in Khandahar, Afghanistan, described the sound as “high-pitched whirr” providing “constant white noise” for local residents.²⁶ However, again there was no indication on the volume of this noise or the impact on daily life.

In contrast, there have been ongoing complaints about noise by residents living close to the West Wales UAV Centre at Parc Aberporth, where Watchkeeper drones are currently being tested.²⁷ The Centre provides, according to its website, 500 square miles of airspace for development and demonstration flights of drones.²⁸ However, media coverage has indicated that such testing has a negative impact on local residents. For example,

Llangoedmor resident John Jones said “The noise was quite frightening. At 3.30am I jumped in my car ... where I saw a drone landing – there was a hell of a noise. It’s bad enough having to put up with trials during daytime but it’s far worse at night.”²⁹

Further concerns were recently raised during a debate in Westminster Hall on Brechfa West Wind Farm on 6 March 2013, particularly around the fact that MoD had warned that these wind turbines could cause interference to range-control radar at Parc Aberporth.³⁰ This raises questions as to the safety of local residents living close to this testing area.

There are complex legal, moral and ethical dilemmas associated with the use of drones. While, quite correctly, much of this focus has been on the ability of this weapon to kill and the legal frameworks (or lack thereof) governing their use, there needs to be further consideration of the impact of its other functions, namely how its use is experienced by those living under it, not just in Afghanistan, Pakistan, Yemen and Somalia but also

24 Ibid. p. 55.

25 See *UAVs reaping benefits in Afghanistan*, 25 October 2011, <https://www.gov.uk/government/news/uavs-reaping-benefits-in-afghanistan>

26 Rob Blackhurst, *The air force men who fly drones in Afghanistan by remote control*, Daily Telegraph, 24 September 2012, <http://www.telegraph.co.uk/news/uknews/defence/9552547/The-air-force-men-who-fly-drones-in-Afghanistan-by-remote-control.html>

27 See, for example: Ian Drury, *The drone zone: Seaside town's peace is shattered by the testing of unmanned aircraft used to tackle the Taliban*, Daily Mail, 16 February 2013, <http://www.dailymail.co.uk/news/article-2279491/The-drone-zone-Seaside-towns-peace-shattered-testing-unmanned-aircraft-used-tackle-Taliban.html#ixzz2M6HKrs6a> and Jerome Taylor, “Waziristan? No, it’s west Wales...”, The Independent, 1 November 2012, <http://www.independent.co.uk/news/uk/home-news/waziristan-no-its-west-wales-8269782.html>

28 See <http://www.wvuavc.com/> for more details.

29 *Concern over UAV night flights*, Tivyside Advertiser, 7 August 2012, http://www.tivysideadvertiser.co.uk/news/9858213.Concern_over_UAV_night_flights/

30 Hansard HC Deb, 6 March 2013, c269WH.

Wales. More robust and effective data collection mechanisms need to be put in place to assess the psychological impact of this weapon. Further, attention needs to be paid to those in the RAF operating this technology, to ensure that the use of drones is not simply replacing the reduction of risk for those on the ground in Afghanistan with a rise in mental health challenges for the RAF.

Prepared by Caroline Parkes, March 2013.

For further information on the work of the Group, please email:
caroline.parkes@parliament.uk or telephone, 0207 219 8123.