

Consultation on the National Security Strategy and the Strategic Defence and Security Review 2015

Submission by Scientists for Global Responsibility (SGR)

September 2015

Contact

Dr Stuart Parkinson
Executive Director
Scientists for Global Responsibility
Unit 2.8, Halton Mill
Mill Lane, Halton
Lancaster LA2 6ND

About SGR

1. SGR is an independent UK-based organisation, whose membership includes over 750 natural scientists, social scientists, engineers, and other professionals in related areas. We promote science, design and technology that contribute to peace, social justice, and environmental sustainability.
2. Our recent publications include an in-depth report critically examining the role of science and technology in UK security strategies [1] and a report examining the risks of UK nuclear weapons [2]. We draw on evidence from these reports – as well as other sources – in this submission.

Submission

3. There are three key areas on which we would like to comment:
 - a. The importance of prioritising efforts to tackle the roots of conflict;
 - b. The importance of considering the UK's nuclear weapons system within this review and the ways in which this system undermines national and international security;
 - c. The problems with the UK's continued priority for developing and deploying military technologies with major offensive capabilities.

a. Tackling the roots of conflict

4. The National Security Risk Assessment (NSRA), which formed the basis of the 2010 National Security Strategy, identified and prioritised a number of major risks to the UK's security. The highest four risks (Tier 1) were considered to be: terrorist attacks; cyber attacks; major accidents/ natural hazards; and an international military crisis "drawing in the UK" [3]. In total, the NSRA identified 15 risks, the majority of which were non-military in nature, including three of the four Tier 1 risks.

5. While the NSS and SDSR included preventative action to tackle these risks, there was (and continues to be) a major focus on the development and deployment of military technologies intended as 'deterrence' rather than on non-military measures, including tackling the root causes of the security risks.
6. SGR has carried out in-depth investigation into research and development (R&D) spending relevant to UK security risks [4]. In short, our investigation discovered that between 2 and 7 times as much UK public funding is spent on military R&D as on civilian security-related R&D [5]. This civilian R&D included a very broad range of work including international development (including poverty alleviation), climate change impacts, sustainable energy technologies, food security, international relations, natural resource management, biodiversity, environmental risks and hazards, sustainable consumption, and other measures to mitigate and adapt to climate change. Given the large potential for problems such as climate change, resource depletion and economic inequality to multiply the risks of conflict – as acknowledged by many including government officials – our conclusion was that the government needed to focus a much greater share of the UK's scientific and technical resources on tackling these root causes. Our view is that the continued failure to do so is undermining both UK and international security.
7. In addition to the allocation of public *R&D* resources, there is obviously the broader question of the allocation of *overall* resources across government to different approaches to tackling security risks. Obviously, these resources include the Ministry of Defence budget and also some of the budgets of the Foreign Office, Home Office and Department for International Development. Arguably, this also includes efforts to reduce carbon emissions, tackle other major environmental problems, and improve energy security. While it is clear that the MoD's budget of approximately £36bn per year [6] is currently the largest element of this, we have been unable to find any in-depth assessment which judges overall spending or its effectiveness in helping to improve security in different areas. We strongly urge the government to carry out such an assessment. Given the continued emphasis on high military spending – much higher as a percentage of GDP than most similar democracies, as shown by a recent analysis by the Oxford Research Group [7] – we have major doubts about whether the government's spending is an effective use of public funds.
8. Some indication of the importance of action to tackle the roots causes of security problems comes from international assessments of deaths due to the current effects of anthropogenic climate change. For example, the World Health Organisation and other international bodies have published mortality estimates which number in the hundreds of thousands per year worldwide [8]. These are of a similar order of magnitude to global estimates of the numbers killed annually by armed violence [9]. Furthermore, given that proposed cuts of international carbon emissions fall well short of those necessary to keep global temperatures below dangerous levels, such death rates will almost certainly increase. This analysis indicates that the NSRA is likely to be underestimating the security threat of climate change and the value of strong UK action to reduce carbon emissions. Furthermore, it raises serious security questions about the government's current policy of cutting back its support for renewable energy and energy conservation programmes. Consequently, we strongly recommend that climate change is given much

higher prominence in the updated NSRA and NSS, and that the government re-prioritises action on renewable energy and energy conservation.

9. Finally in this section, we wish to comment on the extreme contrast between the government's continued commitment to maintaining international development spending and the high priority it gives to supporting UK arms exports. The UK's international development programmes are an important vehicle for helping to tackle the roots of insecurity, yet at the same time UK arms export licenses continue to be approved for numerous countries run by authoritarian regimes and for countries involved in conflict. Many of these nations appear on the Foreign Office list of 'Countries of Human Rights Concern', such as Saudi Arabia (UK arms exports licenses worth over £4.1bn approved in the last five years), China (over £3.5bn) and Iran (over £1.3bn) [10]. There have been repeated and extensive criticisms of the government's policies and practices in this area by the House of Commons Committees on Arms Exports Controls [11] among others. The need for major reforms and reductions in UK arms exports is, we firmly believe, essential for improving international security.

b. The UK's nuclear weapons

10. The government's current policy is to renew the Trident nuclear weapons system – a commitment starkly demonstrated by the recent announcement of £500m funding for the Trident submarine base. However, it would be deeply flawed to carry out a strategic review of defence and security without critically examining whether a major weapons system which is deployed on a continuous basis – as Trident is and as its successor is planned to be – should continue in its current form or role. We consider it essential that the future of Trident is re-examined as part of this review process.
11. Considering the UK's nuclear weapons themselves, it is clear that they are weapons of mass destruction within any commonly accepted definition of the term. As we pointed out in a recent report [12], the warheads routinely carried on a single Trident submarine have the equivalent explosive power of about 320 Hiroshima bombs which, if they were launched at cities, would result in around 10 million casualties. The latest climate modelling studies [13] have concluded that the explosion of just 100 Hiroshima bombs could cause such huge disruption to the global climate that they would lead to mass famine unprecedented in human history. Our report also pointed out the non-negligible risk of accidental or otherwise unplanned launch of these weapons.
12. A further problem is that the UK's continued deployment of nuclear weapons – and particularly their planned modernisation – is considered by many nations to undermine both the nuclear non-proliferation and comprehensive test ban treaties, therefore increasing the risk of failure of these treaties.
13. As such, our view is that the UK's nuclear weapons are a major threat to both international and our country's own security.
14. We therefore strongly urge the government to take the following steps as soon as possible:

- end active deployment of Trident nuclear weapons;
- place nuclear warheads in storage, while an international disarmament process is set up;
- take a leading role in those negotiations; and
- cancel the Trident successor programme.

c. The focus on the development and deployment of offensive military technologies

15. As stated, the 2010 NSS classified “an international military crisis... drawing in the UK” as a Tier 1 threat. Indeed, the UK has been actively involved in wars in Libya (2011) and Iraq (2014 onwards), and is beginning to consider greater involvement in the war in Syria as well. Such military interventions, together with those in Afghanistan (2001-2014) and Iraq (2003-11), have been widely criticised for numerous reasons including civilian casualties, fuelling of international terrorism, displacement of refugees, high economic costs, and their inability to bring stability and security to the countries in question. While the government may dispute some of the criticisms, there is little doubt there have been major failings. It is also clear that UK military involvement in these wars has been a deliberate choice by the government of the day – not a passive “drawing in”. In these cases, a range of military and non-military options were available, but the government prioritised the military options.

16. We strongly urge the government to put much higher priority on non-military options, including [14]:

- more concentrated effort to enforce arms embargoes in regions of conflict, as well as much stricter controls more generally of the UK and international arms trade;
- improving international financial controls to shut down funding routes for groups such as IS;
- stricter border controls to prevent new combatants entering conflict zones, e.g. in Turkey;
- continued negotiation to create more humanitarian corridors to help refugees fleeing from war zones;
- providing adequate funding and resources for refugee camps, food aid and other support services;
- rapid reaction mediation teams (composed of neutral parties) to help defuse political conflicts before fighting breaks out;
- defusing international tensions by reducing military exercises, co-operating in arms control and disarmament programmes, and cutting military spending;
- more national and international processes for tackling underlying grievances, such as political exclusion, human rights abuses, inequality, poverty, and environmental damage.

17. A contributory factor to the government’s over-confidence in military options has been, in our view, its focus on developing and deploying military technologies with major offensive capabilities. SGR has demonstrated that the focus on such technologies can be found in the UK military R&D programmes [15]. For example, over three-quarters of this R&D spending has been on developing military technologies which have, or contribute to, a major offensive capability, such as large-scale or long-range ‘force projection’. Military technologies within this definition includes aircraft carriers, long-range strike

planes, nuclear-powered submarines and, of course, nuclear weapons. There are growing concerns that military procurement is increasingly being 'capability driven' rather than 'threat driven'. This undesirable situation has, we believe, stemmed from an unhelpfully close interaction between government and major arms companies, particularly BAE Systems, and high levels of political and economic support provided for the UK arms industry in general. Such close interaction also helps to explain the continued reluctance of the government to impose adequate restrictions on arms exports as discussed in section 1 above.

Key recommendations

18. Based on the analysis above, we make the following key recommendations:

- Shift financial and technical resources from R&D on offensive military technologies to civilian R&D which will help to tackle the root causes of conflict, especially in areas such as climate change;
- Take immediate steps to end the active deployment and modernisation of UK nuclear weapons;
- End the focus on military intervention as the leading UK approach to dealing with international security problems and give much greater priority to non-military options which focus on tackling the roots of conflict – and, as part of this process, make major cuts to the development and deployment of UK offensive weapons systems.

References

1. Parkinson S, Pace B, Webber P (2013). Offensive Insecurity: The role of science and technology in UK security strategies. Scientists for Global Responsibility. <http://www.sgr.org.uk/publications/offensive-insecurity>
2. Webber P, Parkinson S (2015). UK nuclear weapons: a catastrophe in the making? Scientists for Global Responsibility. <http://www.sgr.org.uk/publications/uk-nuclear-weapons-catastrophe-making>
3. Cabinet Office (2010). The National Security Strategy: a strong Britain in an age of uncertainty. The Stationery Office. <https://www.gov.uk/government/publications/the-national-security-strategy-a-strong-britain-in-an-age-of-uncertainty>
4. As note 1.
5. The exact amount depends on how civilian security-related R&D is defined – obviously, the broader the definition, the larger the amount.
6. MoD (2014). UK defence statistics compendium: 2014. <https://www.gov.uk/government/statistics/uk-defence-statistics-compendium-2014>
7. Reeve R (2015). Cutting the Cloth: Ambition, Austerity and the Case for Reducing UK Military Spending. Oxford Research Group. http://www.oxfordresearchgroup.org.uk/publications/briefing_papers_and_reports/cutting_cloth_ambition_austerity
8. Examples of estimates for annual number of deaths due to climate change:
 - 150,000 – World Health Organisation et al (2003). Climate Change and Human Health: Risks and Responses. <http://www.un.org/apps/news/story.asp?NewsID=9179&Cr=health&Cr1>

- 300,000 – Global Humanitarian Forum (2009). Climate Change: The Anatomy of a Silent Crisis. <http://www.ghf-ge.org/human-impact-report.pdf>
 - 400,000 – DARA and the Climate Vulnerable Forum (2012). Climate Vulnerability Monitor (2nd Edition): A Guide to the Cold Calculus of a Hot Planet. <http://daraint.org/wp-content/uploads/2012/09/CVM2ndEd-FrontMatter.pdf>
9. Estimated at 508,000 per year from 2007 to 2012 – The Geneva Declaration (2015). Global Burden of Armed Violence 2015: Every Body Counts. <http://www.genevadeclaration.org/measurability/global-burden-of-armed-violence/global-burden-of-armed-violence-2015.html>
10. Campaign Against Arms Trade (2015). UK Arms Export Licenses: April 2010 to March 2015. https://www.caat.org.uk/resources/export-licences/region?date_from=2010-04&date_to=2015-03
11. See, for example: Committees on Arms Exports Controls (2015). Scrutiny of Arms Exports and Arms Controls 2015. The Stationery Office. <http://www.publications.parliament.uk/pa/cm201415/cmselect/cmquad/608/60802.htm>
12. As note 2.
13. For example, see:
- Toon OB, Turco RP, Robock A, Bardeen C, Oman L, Stenchikov GL (2007). Atmospheric effects and societal consequences of regional scale nuclear conflicts and acts of individual nuclear terrorism. *Atmospheric Chemistry and Physics*, vol. 7, no. 8, pp. 1973-2002.
 - Robock A, Oman L, Stenchikov GL, Toon OB, Bardeen C, Turco RP (2007). Climatic consequences of regional nuclear conflicts. *Atmospheric Chemistry and Physics*, vol. 7, no. 8, pp. 2003-2012.
 - Mills MJ, Toon OB, Lee-Taylor J, Robock A (2014). Multidecadal global cooling and unprecedented ozone loss following a regional nuclear conflict. *Earth's Future*, vol. 2, pp. 161–176. DOI: 10.1002/2013EF000205.
14. Parkinson S (2015). Challenging the mindset of war. *Scientists for Global Responsibility Newsletter*, no.43. <http://www.sgr.org.uk/resources/challenging-mindset-war>
15. As note 1.