



Renewing Trident nuclear weapons - has the decision already been taken?

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Challenging the nuclear future

Philip Webber and Stuart Parkinson summarise the recent developments surrounding nuclear weapons and nuclear power in the UK.

In recent months, nuclear issues have climbed to the top of the political agenda. And as we write this, the UK government is dropping strong hints that it would like to retain both nuclear weapons and nuclear power as part of the nation's future.

The decision on whether to renew Britain's Trident nuclear weapons will be taken at the latest before the

next general election. But there are signs that preparations for renewal have started already. The funding for the Atomic Weapons Establishment (AWE) at Aldermaston has been increasing over the last couple of years, and now construction work has begun on a new high power laser facility ('Orion') with a new supercomputer ('Larch') to be installed this summer¹. Meanwhile, as ministers deny any decision has been taken, the government refuses to commit to a parliamentary vote on the issue. The level of democratic accountability was further brought into question when the Ministry of Defence refused to provide evidence to the Defence Select Committee on the issue². Campaigners have consequently stepped up their protests at the AWE and Faslane naval base in Scotland (where the nuclear submarines are based), only to find that the new Terrorism Act is being used to restrict their activities³.

Critics, including SGR (see p.3), have pointed out that any renewal of the Trident system would seriously undermine our international obligations under the nuclear Non-Proliferation Treaty (NPT), which requires us to pursue nuclear disarmament. This is especially problematic as we try to convince Iran, North Korea and others to abide by the safeguards laid down under that treaty by the International Atomic Energy Agency (IAEA).

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Preliminary announcement

SGR conference and AGM 2006

21 October

University of London Union

This year's conference will discuss case studies of where science, design and technology are making a positive contribution to peace, social justice and environmental sustainability. The event will include keynote speakers and workshops.

Full details will be sent to all members closer to the event, but please make a note in your diaries now. Updates on the event details will appear on the SGR website soon.

Feature Articles

Notes and references

1. Quoted by Ken Wilber in *A Theory of Everything*, Boston (Shambhala), 2000, p.136.
2. See, e.g., William Eckhardt, 'War-Related Deaths Since 3000 BC', *Bulletin of Peace Proposals*, Dec. 1991, and Ruth Leger Sivard, *World Military and Social Expenditures* 1996.
3. Quoted by Joan Chittister in *Catholic Reporter* – see: <http://www.nationalcatholicreporter.org/fwis/pc012705.htm>
4. The actual number of casualties in wars is often not easy to determine – casualty statistics may be unobtainable, withheld, or biased guesses. See <http://users.erols.com/mwhite28/warstats.htm> for discussion on how this particular number was obtained.
5. *SIPRI Yearbook 2005* – <http://yearbook2005.sipri.org/>
6. Figures obtained from SIPRI and displayed at http://www.nationmaster.com/graph-T/mil_con_arm_exp
7. From a speech to the American Society of Newspaper Editors, April 16, 1963.
8. Worldwatch Institute, *Vital Signs 2001* (WW Norton 2001).
9. *New Internationalist*, issue 354, March 2003, Gleick, P. et al., *The World's Water 2002-2003*, Island Press, 2002.
10. *New Internationalist*, issue 353, Jan/Feb 2003.
11. *Twelve Myths about Hunger* from Food First – <http://www.foodfirst.org/pubs/backgrdrs/1998/s98v5n3.html>
12. *New Internationalist*, issue 377, April 2005.
13. Schwartz, P. & Randall, D., *An Abrupt Climate Change Scenario and Its Implications for United States National Security*, Oct. 2003 http://www.environmentaldefense.org/documents/3566_AbruptClimateChange.pdf – as published by *The Observer*. <http://observer.guardian.co.uk/international/story/0,6903,1153513,00.html>
14. Wright, S., 'Preparing for Mass Refugee Flows – The Corporate

Military Sector', to be published, 2006.

15. In December 1958 the US Department of Defense established a spacetrack network which was taken over by Air Research and Development Command. In 1959 the USAF included aerospace as part of its new mission and space surveillance and missile warning systems became part of Air Defense Command. This role was transferred to Strategic Air Command in 1979. A unified space command was suggested in 1959 but military space systems were developed by the US Army and USAF separately until the formation of Space Command in 1982. The US Department of Defense merged US Space Command with US Strategic Command (STRATCOM) in October 2002 – see: <http://www.peterson.af.mil/hqafspc/> and <http://www.stratcom.mil/about-ch.html>
16. NASA was created in July 1958 with a mission to 'understand and protect our home planet; explore the Universe and search for life; inspire the next generation of explorers...' – see: <http://history.nasa.gov/>
17. See *Program Charter for Homeland Security Program*, 2005 – http://www.homelandsecurity.noaa.gov/FY08_HS_CHARTER.pdf
18. See 'Net-Centric Warfare is Changing the Battlefield Environment', *Journal of Defense Software Engineering*, Jan. 2004 – <http://www.stsc.hill.af.mil/crosstalk/2004/01/0401Raduege.html>
19. See 'Joint Vision 2020 Emphasizes Full-spectrum Dominance', *AFIS, News*, June 2, 2000 – http://www.defenselink.mil/news/Jun2000/n06022000_20006025.html – the Space Command's *Vision* for 2020 document can be obtained from <http://www.fas.org/spp/military/docops/usspac/visbook.pdf>
20. E.g. *Air Force Space Command Strategic Master Plan FY06 and Beyond* –

- <http://www.peterson.af.mil/hqafspc/library/AFSPCAOffice/Final%2006%20SMP—Signedv1.pdf>
21. Counterspace Operations – Air Force Doctrine Document 2-2.1, August 2004 – http://www.dtic.mil/doctrine/jel/service_pubs/afdd2_2_1.pdf
22. See, e.g., *Missile Defense Agency Fiscal Year 2007 Budget Estimate Overview* – <http://www.cdi.org/pdfs/Final%20Budget%20Overview%20FY%202007%20MDA.pdf>
23. Hitchens, T., Katz-Hyman, M. & Samson, V., *Space Weapons Spending in the FY 2007 Defense Budget* – <http://www.cdi.org/pdfs/FY07SpaceWeapons.pdf>
24. Adams, E., 'Is this what war will come to?', *Popular Science*, June 2004.
25. Wright, D., Grego, L. & Gronlund, L., *The Physics of Space Security*, Union of Concerned Scientists, May, 2005 – http://www.uccusa.org/global_security/space_weapons/the-physics-of-space-security.html
26. 'Public Papers of the Presidents', Dwight D. Eisenhower, 1960, pp. 1035-1040 – <http://coursesa.matrix.msu.edu/~hst306/documents/indust.html>
27. In December 2005 Sir Howard Newby, Chief Executive of the Higher Education Funding Council, stated that applications for physics, mathematics, engineering and chemistry degree courses had fallen by 30% in recent years. He reminded officials that 10 universities have closed their chemistry departments due to lack of demand. This follows years of decline in take-up of science at GCSE and A-level. The number taking A-level physics dropped by 34% between 1991 and 2004, while the numbers of students taking chemistry and mathematics over the same period declined by 16% and 22% respectively.

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On nuclear power, a formal decision is imminent on whether to opt for a new generation of power stations. With the failure to cut carbon dioxide emissions since Labour came to power and the gradual decommissioning of current nuclear and coal plants over the next two decades, the government has carried out another energy review (the second in less than four years). However, it seems that even before the formal review period began, Tony Blair had decided that new nuclear power would make up a major part of the UK's future energy mix⁴.

While many of the professional scientific and engineering institutions have come out in support of new nuclear power, there have been notable dissenters. The government advisory body, the Sustainable Development Commission, published a comprehensive report in March⁵ which argued not only that new nuclear power was not needed to tackle climate change, but also that it could actually undermine more promising alternatives. In particular, it highlighted that large nuclear power stations could undermine the shift towards more decentralised and

more efficient energy generation and use. A report by Warwick Business School⁶, released in April, came to similar conclusions, pointing out that nuclear power stations require a whole series of special financial and legal supports – in effect, major public subsidies. Other dissenters, including SGR (see p.3), have pointed out concerns over radioactive waste, plant security, economics, availability of uranium ore, and the inflexibility of nuclear power generation.

April also saw the 20th anniversary of the Chernobyl nuclear disaster, the world's worst industrial accident. The anniversary was marked by intense debate over the human and environmental impacts, in particular the number of deaths caused by the accident⁷. The Chernobyl Forum (an international body led by the IAEA) initially claimed only 4,000 deaths would result, although this figure was later revised to 9,000. Other studies argued the figures were much higher. For example, the International Agency for Research on Cancer estimated 16,000 while Greenpeace claimed that it was in the region of 93,000⁸.

The debate on nuclear issues will continue to intensify and SGR will continue to add its voice.

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Notes and references

1. Atomic Weapons Establishment (2006). <http://www.awe.co.uk/> (viewed 18/05/06)
2. Norton-Taylor, R. (2006). MoD ministers reject calls to discuss Trident replacement. *The Guardian*. March 15. <http://www.guardian.co.uk/>
3. Aldermaston Women's Peace Camp(a)gn (2006). AWE Aldermaston: Terrorism Act used to prevent protest. Press release, April 13. <http://www.aldermaston.net/news/article.php?id=48>
4. Rowell, A. (2006). Plugging the gap. *The Guardian*. May 3. <http://www.guardian.co.uk/>
5. Sustainable Development Commission (2006). The role of nuclear power in a low carbon economy. <http://www.sd-commission.org.uk/>
6. Mitchell, C., Woodman, B. (2006). New nuclear power: implications for a sustainable energy system. Warwick Business School & Green Alliance. <http://www.green-alliance.org.uk/>
7. Peplow, M. (2006). Counting the dead. *Nature*, Vol 440, pp. 982-983.
8. As [7]. See also: Greenpeace (2006). The Chernobyl Catastrophe – Consequences on Human Health. <http://www.greenpeace.org/>