

Making space for peace - preventing Missile Defence expanding warfare

Philip Chapman argues that international law on the military use of space still needs urgent attention, despite recent announcements from the Obama administration.

The world's most powerful military forces are today heavily reliant on technologies that utilise space, but the use of space by the military is almost as old as the space age itself, beginning with the launch of the first US spy satellites in the years following Sputnik 1. The most dangerous and destabilising current military use of space is the US Ballistic Missile Defence System (BMDS), which has started a new arms race, threatens to produce a new arena of warfare and presents an impediment to wider disarmament efforts. Despite the recent announcement by the Obama administration to abandon Bush era plans for interceptors and radar installations in Poland and the Czech Republic, the programme remains extensive and is expanding. This makes new treaty arrangements for space an international priority.

Integrated Missile Defence

Until 2002 the BMDS designed to shield the entire US landmass from ballistic missile attack was known as National Missile Defence. This distinguished it from more mobile 'theatre' missile defences, such as Theatre High Altitude Area Defense (THAAD) and Aegis ship based BMD. In 2002, under the newly

named Missile Defence Agency (MDA), the distinction was blurred, with the MDA now talking of integrated, tiered or layered missile defence encompassing all programmes (Figure 1).

The UK role

In accordance with its customary role in the 'special relationship,' the UK government has at all stages in the Missile Defence programme signalled its willingness to do whatever the US military asks of it. As of August 2007 an upgrade to add missile tracking capabilities to the phased array Ballistic Missile Early Warning Radar at RAF Fylingdales has been operational. At RAF Menwith Hill (Figure 2) the relay ground stations have been built in anticipation of the much delayed and grossly over budget Space-Based Infrared Systems. Just one of these programmes, called SBIRS High and consisting of geosynchronous and highly elliptical orbiting satellites, is now estimated to cost \$12 billion, with the contracts mostly going to Lockheed Martin.¹

First strike weapon

Missile Defence is intended to nullify the deterrent capabilities of potential adversaries. In the words of the Rand Corporation "ballistic missile defense is not simply a *shield* but an *enabler* of US action".² Russia and China therefore regard BMDS as a weapon with the potential to nullify any response of theirs to a US first strike.³ Bush era policy demanding "no final,

fixed missile defense architecture," but an ever "evolving" and "expanding" BMDS reinforced this view.⁴ While Russian objections have come to the fore in recent years, the Chinese were the strongest opponents prior to the US withdrawal from the Anti-Ballistic Missile (ABM) treaty and prior to installations in eastern Europe being proposed. As the US was about to withdraw from the ABM treaty, Chinese experts spoke of a decade's failure to "stiffen the Russian spine." China has responded in ways long predicted, such as with the development and testing of anti-satellite weapons.²

The first war in space - maybe the last?

The Chinese successfully tested an anti-satellite weapon on 11 January 2007, destroying an old weather satellite and creating the "most severe orbital debris cloud in history".⁵ This test has created 2,317 pieces of orbiting debris large enough to be tracked by NASA (larger than 10cm) and over 35,000 pieces between 1cm and 10cm.⁶ It is estimated that destroying bigger satellites could create 250,000 pieces large enough to track.⁷ Coupled with a 'cascading effect' even a relatively limited attack on objects in low earth orbit could severely limit peaceful uses of this orbital belt, or at least make necessary expensive and restrictive protective measures.⁸ Having argued for years for the banning of such weapons, this action by China should be seen as an attempt to persuade the US that a ban is in its interests.

Law in space

The foundation of international law governing space is the Outer Space Treaty of 1967. It states: "The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries... and shall be the province of all mankind." It goes on to say, "Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means." It specifically bans the placement in space of weapons of mass destruction and forbids military installations on celestial bodies.

Clinton era talk of 'control,' 'dominance' and 'denial' of space,⁹ as well as Bush era claims of effective ownership, clearly violate the spirit of the Outer



Figure 1. Components of Missile Defence.

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Space Treaty. However existing legal arrangements leave much unspecified; urgent action is required to contain expansionist military ambitions.

PAROS

On the 29 May 2009, due to the change of power in Washington, the UN Conference on Disarmament (CD) agreed upon a programme of work for the first time in twelve years. It included a provision to discuss a 'Prevention of an Arms Race in Outer Space' (PAROS) agreement. Russia and China have long been keen proponents of such an agreement and submitted a joint draft treaty in 2008. However, as implementation of the programme has stalled, it remains to be seen whether the Obama administration is willing to negotiate on all four 'core issues' of the CD, including PAROS, and not solely a Fissile Material Cut-off Treaty (for controlling nuclear materials).¹⁰

Nuclear disarmament

A new bilateral agreement between Russia and the US to further reduce nuclear warheads ('New Start') is almost certain to be agreed in the coming months. However, the goal of a world without nuclear weapons, the desire for which has won President Obama the Nobel peace prize, requires action by the US that has yet to be signalled. As the Russian ambassador to the UN stated on the 8 October 2009, "It is hard to imagine a situation in which a significant reduction of nuclear arms is made simultaneously with missile defence build-up, designed to give military advantage to one of the parties."¹¹ While the Chinese expand and modernise their nuclear arsenal to ensure the ability to respond to a first strike, it is clear that nuclear weapons states, dwarfed by the conventional military might of the US, will require wider international arms control and peace agreements to consider dismantling their nuclear weapons. Guarantees of peace in space will be a necessary part of this architecture.

A role for SGR?

Having been in a moribund state for years, the Conference on Disarmament has regained the potential to play a central role in the coming years in creating a more peaceful future. The CD annual report 2009 reported that "several delegations reiterated their hope of enhanced civil society engagement in the work of the Conference." There is every reason why SGR should be among those engaging with this work.

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Figure 2. Menwith Hill from the air.

Conclusions

To conclude:

- Advocates for nuclear disarmament and strategic arms reduction need to address Missile Defence development and fears of the weaponisation of space by also advocating for new international agreements limiting their development. A PAROS agreement must at the very least prevent the placement of weapons in space and the targeting of objects in space.
- The scrapping of plans for interceptor missiles in Poland and radar in Czech Republic could simply be, as the Pentagon says it is, a purely technical decision and could in fact lead to operational interceptor missiles being sited in Europe earlier than the original scheme. Obama is yet to move beyond and alter the Bush administration's space policy.
- EU states and concerned parties should emphasise the importance of all four core issues at the Conference on Disarmament, namely nuclear disarmament, negative security assurances, a Fissile Material Cut-Off Treaty, and PAROS.

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This article is based on a poster presented at the SGR conference 2009.

References

(Weblinks correct as of October 2009)

1. United States Government Accountability Office (2009). Defense Acquisitions: Assessments of Selected Weapon Programs. <http://www.gao.gov/new.items/d09326sp.pdf> p.135
2. Gombert DC, Isaacson JA (1999). Planning a missile defense system of systems – An adaptive strategy. Rand Issue Paper IP-181. (Emphasis in the original.)
3. Zhang H (2004). China's ASAT Capabilities: As a Potential Response to US Missile Defense and 'Space Control' Plans. Ensuring America's Space Security. Report of the FAS Panel on Weapons in Space. Appendix F-1.
4. Bush GW (2002). National Security Presidential Directive 23. <http://fas.org/irp/offdocs/nspd/nspd-23.htm>
5. Liou J-C, Johnson NL (2009). Characterization of the catalogued Fengyun-1C fragments and their long-term effect on the LEO environment. *Advances in Space Research*, 43 (9), pp. 1407-1415.
6. Center for Space Standards and Innovation (2007). Chinese ASAT Test. <http://www.centerforspace.com/asat/>
7. Berger B (2007). NASA Moves Terra Satellite to Avoid Debris Caused by China A-Sat Test. *Space News*, 11 July. http://www.spacenews.com/archive/archive07/terrasat_0709.html
8. Primack JR (2002). Debris and Future Space activities. In: Moltz JC (ed) *CNS Occasional Papers #10*. <http://cns.miis.edu/opapers/op10/index.htm>
9. US Space Command (1996). *Vision 2020*. <http://www.fas.org/spp/military/docops/usspac/visbook.pdf>
10. Hitchens T (2009). *Saving Space: Threat Proliferation and Mitigation*. Commissioned by the International Commission on Nuclear Non-proliferation and Disarmament. http://www.icnnd.org/research/Hitchens_Saving_Space.pdf
11. RIA Novosti (2009). Russia says Missile Defense build-up affects disarmament efforts. 8 October. <http://en.rian.ru/world/20091008/156388642.html>