

Weaponisation of space and threats to European space assets supporting ESDP

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Thank-you Mr Chairperson. I am honoured to be invited to participate in this timely Hearing. As the sole woman's voice being heard today on this important subject, let me note that we should beware of becoming so excited about all the technological toys that we forget what they are for and *who* they are for.

As we have heard from Mr Weissenberg, the April 26 Communication from the Commission on European Space Policy stated, "*The economy and security of Europe and its citizens are increasingly dependent on space based capabilities which must be protected against disruption.*"¹

That is my starting point. Listening to many of today's presentations, we might imagine all was rosy and cosy in space. It isn't. Space has become the contested 'high ground' for some military strategists, particularly in the United States, who promote the argument that whoever controls space will obtain an unassailable military and commercial dominance on Earth (and that on this basis the United States needs to ensure its continued space superiority and dominance)². Our development of and access to the benefits from space-based capabilities risk being seriously, perhaps irrevocably disrupted if space is turned into a potential or actual battleground. In the Chinese ASAT test and Russia's responses to the threatened siting of missile interceptors and missile defence tracking and targeting facilities in Poland and the Czech Republic, we are sadly already seeing adverse consequences to the US policies.

Though it also has wider objectives, the drive to weaponise space is related to missile defence, which I discuss below in relation to US and NATO plans, including the

¹ Communication from the Commission to the Council and the European Parliament, Brussels, April 26, 2007, COM(2007) 212; http://ec.europa.eu/enterprise/space/doc_pdf/com_en.pdf

² The drive towards developing weapons for use in or from space is related to missile defence and its proponents use two principal justifications: firstly, that space weapons are essential to protect space assets from a pre-emptive attack, dramatically called a 'Space Pearl Harbor' by the *Commission to Assess United States National Security Space Management and Organization* (known as the 2001 Space Commission); and secondly, that who controls space will obtain an unassailable military and commercial dominance on Earth (and that this space superiority and dominance is the destiny of the United States). In addition to the assumptions of vulnerability, control and space power projection, some argue from historical analogy that space weaponization is inevitable, and that whoever gets there first will enjoy an overwhelming advantage. From the mid-1990s on, all three types of argument could be found in US policy documents. See the 1996 *National Space Policy*; the 1999 *Department of Defense Space Policy*; US Space Command's *Vision for 2020* (1997) and *Long Range Plan* (1998); The US Air Force *Strategic Master Plan for FY02 and Beyond*; the Defense Department's 2001 *Transformation Study Report*; and the 2001 and 2006 *Quadrennial Defense Reviews*.

proposed siting of missile interceptors and sophisticated X-band radar tracking and targeting facilities in Poland and the Czech Republic.

A note of clarification: I was introduced as speaking on the militarisation of space, but I need to make an important distinction. From the first Sputnik, space has been militarised. Many of the military capabilities are intertwined with civilian capabilities. Having worked in the field of arms control, disarmament and non-proliferation, I know how essential these space assets are for monitoring and verifying treaties. And as detailed in my study for the European Parliament on “Europe’s Space Policies and their relevance to ESDP”, delivered last June by the Acronym Institute and ISIS-Europe [[LINK available http://www.acronym.org.uk/space/PE381369EN.pdf](http://www.acronym.org.uk/space/PE381369EN.pdf)], many of these space developments can support European security objectives. But there is also the risk of eroding security in space and on the ground.

European policy must become more active in forestalling the weaponisation of space by strengthening the international legal regime to regulate and protect non-aggressive space uses. It also needs to draw a clear line to ensure that security-enhancing applications are not misused or misdirected for the purposes of aggression or the surveillance of citizens in contravention of their privacy and human rights.

Our study raised questions about ways in which the civil-military interface needs to be managed to enable Europe to benefit from a more effective coordination of technologies and assets. Time is too short to do justice to this complex subject, but our aim is to enhance European and international security, while preventing destabilising developments, such as the testing, deployment or use of anti-satellite weapons or weapons in and from space.

Undoubtedly, space technology can enhance the planning and operation of ESDP missions. It can help the EU identify humanitarian crises at an early stage and focus responses and resources more effectively. It can also enhance efforts to combat the trafficking in people, sensitive goods (such as nuclear, biological, chemical or radiological materials, drugs, illicit cargoes) or weapons. Space technology can make an important contribution to efforts to reduce potential dangers from weapons of mass destruction (WMD).

At the same time, these capabilities should not be overestimated or treated as a military panacea. The Commission Communication of April 26 emphasised that “Europe needs an effective policy to enable it to exert global leadership in selected policy areas in accordance with European interests and values.” It also underlined the importance of the peaceful applications of outer space.

It is important not to ignore the fact that the concept of security enshrined in the Common Foreign and Security Policy (CFSP) is more nuanced and complex than the 20th century military-oriented defence policies pursued by the Superpowers.

Though Europe's analysis of the threats associated with terrorism and WMD may be similar in many respects to the United States, the CFSP clearly demonstrates that Europe views security priorities differently from Washington and that the EU favours a more diverse toolbox of instruments and responses to avert, manage or deal with potential threats.

The importance of space for European security and defence is not just a question of aggregating the funding, technology and assets to support the European Security Strategy, ESDP and the headline goals. The objectives and scope of a European Space Policy pre-eminently need to relate to the overall objectives of the CFSP. That is why they need to address issues of security *from* space, in addition to security *in* space.

Weaponisation of Space: Creating new threats through bad policy

The pursuit of missile defences could increase nuclear threats by creating an escalating offence-defence spiral, not only in production of weaponry, but also in operational situations, which could be particularly destabilising and dangerous in times of crisis. The use of space for targeting conventional forces may already provoke asymmetric threats, particularly through hacking, jamming or attacks to disable ground stations.

A number of adverse security consequences are foreseeable if space were to be weaponised. It could exacerbate the threats from space debris and electro-magnetic pulse (EMP) and provoke other space-faring nations to deploy weapons for use in, to or from space.

In computer wargame trials conducted by the Pentagon a few years ago, the use of weapons in space (including anti-satellite weapons) led inexorably to the use of nuclear weapons and nuclear war on the ground. Losing one's space-based 'eyes and ears' appeared to cause miscalculations and led to rushed, panicky 'use them or lose them' decisions being made, with devastating consequences.

Even if weaponising space did not lead directly to nuclear war - with the inevitable catastrophic consequences for humankind - it would create a situation of widespread distrust. It could also impede international cooperation in areas related to space technology and developments, including commercial enterprises and space exploration.

In addition, to protect against asymmetric threats, the US may insist on further military secrecy and draconian policing near facilities that support the US missile defence programme, including Fylingdales in England and Thule in Greenland, and, potentially at sites in Poland or the Czech Republic that might be developed for US bases with missile interceptors and sophisticated tracking and targeting radar.

Though discussed in our report, I will accede to the Chair's request not to discuss in detail the relevance here of NATO and Missile defence and the dangers of mission creep towards weaponising space. However, it must be acknowledged that the possibility of

US missiles based on former Warsaw Pact territory has now provoked Moscow – with increased confidence due to Russia’s oil-driven economic resurgence – to warn that if US plans for bases in Eastern European countries go ahead, Russia may withdraw from the Conventional Forces in Europe (CFE) Treaty of 1990 and from the 1987 Intermediate Nuclear Forces (INF) Treaty and redeploy medium-range nuclear missiles in Europe. It should also be recalled that the EU High Representative for security and defence policy, Javier Solana, said that the EU should be consulted on US defence plans in Europe, particularly the siting of any new bases, since they affect EU security, including “our relations with third countries, namely Russia”.

Recommendations

Space can provide unparalleled resources for supporting Europe’s security in relation to humanitarian and environmental crises and diverse natural, criminal and military threats. Nevertheless, it is important to recognise that potential *misuses* of space assets could turn outer space into a battlefield: such abuses would threaten Europe’s security as well as compromising a range of civilian and security applications on which our daily lives now rely.

1. Space security is pre-eminently an issue of global security and international relations. The EU should formulate a common position - as it did with regard to WMD or Nuclear Non-Proliferation - and devise a coherent strategy that protects European security. Such a strategy – operating within the multilateral framework – would reinforce the outer space security regime and should be aimed towards prohibiting the weaponisation of space.³
2. In light of CFSP and our collective security objectives, Europe needs a Space Policy that clearly identifies where the line is drawn between ‘acceptable’ uses of space to support CFSP, ESDP and the European Security and WMD Strategies, and ‘unacceptable’ uses that would cut across Europe’s wider security objectives and policies or jeopardise the peaceful and civilian uses of space on which our quality of life and security now rely.
3. European space assets and access to space need to be actively protected, through both technological and political initiatives. Useful approaches would include
 - a. passive defences such as hardening and shielding, and enhancing Europe’s space situation awareness capabilities; and
 - b. the development and coordination of policies and strategies to enable Europe to play a more significant and effective role in strengthening the international legal regime and developing ‘rules of the road’ for space activities and uses.

³ All EU countries have consistently voted in favour of the annual UN Resolution entitled Prevention of an Arms Race in Outer Space (PAROS), which traditionally used to receive consensus. Changes in US policy destroyed the consensus, but the resolution is still overwhelmingly adopted. In December 2005, for example, the PAROS resolution (UNGA 60/54) received 180 votes in favour. Only the United States and Israel voted against, and there were no abstentions. A second space-security resolution calling for ‘Transparency and confidence-building measures in outer space’ (UNGA 60/66) received 158 votes in December 2005; only the United States voted against, and Israel abstained.

4. Europe will continually find itself outmanoeuvred or pre-empted if the debate on space security is left solely to its defence officials or to a context in which NATO – and primarily the US – drives the decision-making.
5. Europe needs to formulate a strategy to prevent the weaponisation of space, prioritising international legal instruments and agreements to ensure that no weapons are tested or deployed for use in, to or from space. Far better to prevent such destabilising developments by collectively prohibiting space weapons in law, than to delay now and then be faced with the daunting challenge of closing the stable door as more and more horses bolt. Prevention and prohibition of weapons in and from space is cleaner, clearer and safer than belated attempts at disarmament or non-proliferation would be in left for the future to deal with.
6. From an EU perspective, therefore, much more needs to be done to manage the interfaces with NATO, with inauguration of an open, transparent, and rational analysis of the actual threats, prospects of, and alternatives to, missile defences, and implications of certain policy routes for European, international and space security. This will not be easy, as NATO is presently trying to “paper over the transatlantic cracks” by avoiding any in-depth policy debate about the uses and abuses of space. US allies need to play an independent role and contribute fully to debate about the pros and cons of proposals that will affect terrestrial and space security. At the very least, NATO members should insist that a declassified version or substantive summary of the recent NATO Missile Defence Feasibility Study be published and subjected to open debate by industrial and civil society analysts and NATO parliamentarians.
7. In view of the crossovers between NATO and the EU (with 19 countries in both), the European Parliament has an important role to play in overseeing and ensuring that the development of the European Space Policy and the individual space policies and industrial strategies and practices are kept fully consistent with the CFSP and Europe’s fundamental security objectives and interests.

Conclusion

Instead of turning to the sledgehammer of space weaponisation to deal with the potential vulnerabilities of space assets, a more sensible approach (and one consistent with the CFSP) would combine arms control efforts with the technical hardening and shielding of as many satellites as possible, plus space situation awareness, redundancy and other ‘passive’ defence means. Progress in nuclear disarmament, strengthening the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), negotiating a nuclear weapons convention, further efforts to restrict missile proliferation, building on the Missile Technology Control Regime (MTCR) and the Hague Code of Conduct Against Ballistic Missile Proliferation (HCoC) would also contribute to security and reduce the chances of space becoming a battleground – which would be in nobody’s interests.