ISIS

Missile Defence: Trans-Atlantic Diplomacy at a Crossroads

Authors: Gordon R. Mitchell, Kevin J. Ayotte and David Cram Helwich

Summary of Main Points:

- In his May 1 speech President Bush spelled out some possible elements of his vision of global missile defence protection: extension of the shield to friends and allies; BMD co-operation with Russia; and aggressive pursuit of Boost-Phase Intercept (BPI) technology.
- Some in the US Administration are now proposing a crash deployment scheme for BMD, before all its components have been tested, arguing that the system's shortcomings would be outweighed by its symbolic value.
- Skeptics question this *'scarecrow'* rationale, pointing out that a reckless development timetable would require premature abrogation of the ABM Treaty and also create conditions for dangerous system malfunctions that could lead to tragic accidents.
- The Anti-Ballistic Missile (ABM) Treaty is perhaps the most relevant post-Cold War check there is against space weaponisation in the present milieu. Key Democratic Party Senators have said that their powers will be used to protect the ABM Treaty, perhaps by withholding funds for any BMD system not deemed treaty compliant.
- As Trans-Atlantic consultations proceed and details of the US plan for a global shield emerge, EU diplomats can maximise their impact if they approach the bargaining table with a clear view of the security stakes implicated by US BMD proposals and a lucid understanding of the political dynamics driving such initiatives.

ISIS Briefing Series on Ballistic Missile Defence, No.6, July 2001

Centre for Defence Studies

ISIS

Strand Bridge House
138-142 The Strand
London
WC2R 1HH

The International Security Information Service (ISIS) is a non-partisan information service to parliamentarians and other interested parties. ISIS takes neither a corporate view nor a campaigning stance. Authors of ISIS publications speak only for themselves and in their own particular field of expertise.

Dr. Gordon R. Mitchell is Associate Professor of Communication and Director of Debate at the University of Pittsburgh.

Kevin J. Ayotte and **David Cram Helwich** are Teaching Fellows in the Department of Communication at the University of Pittsburgh.

Contact the authors for further information on:

Tel: +1 (412) 624-8531
Fax: +1 (412) 624-1878
Email: gordonm@pitt.edu; kjast13+@pitt.edu; dahst54+@pitt.edu

This series of briefing papers on ballistic missile defence is funded by the W. Alton Jones Foundation and the Ploughshares Fund in the US.

ISIS is also funded by the Joseph Rowntree Charitable Trust. The Governing Board of ISIS comprises: Professor John Ziman, FRS (Chairman), General Sir Hugh Beach, Dr. Peter Bennett, Professor Malcolm Dando, John Gordon, Catriona Gourlay, Dr. Owen Greene and Ronald Higgins.

ISIS is co-located with the Centre for Defence Studies, and is closely associated with the University of Bradford. ISIS co-operates closely with both.

Missile Defence: Trans-Atlantic Diplomacy at a Crossroads

1. Background

US President George W. Bush reiterated his commitment to missile defence in a major foreign policy address at the National Defence University on May 1, 2001. Following the address, where Bush promised to *'consult closely on the important subject with our friends and allies'*, US diplomats were dispatched to Europe for a series of high-level meetings.

Although the ensuing discussions in Budapest and Brussels received much attention, little was actually decided. In part, this was due to the lack of specificity regarding ballistic missile defence (BMD) systems proposed by the US. This vagueness prevented discussions from moving beyond the preliminary stage.

The next round of trans-Atlantic dialogue will likely yield more detail on the technical specifications of proposed BMD systems and clarify the role of foreign opinion in the US decision-making process. Such developments may open a diplomatic window of opportunity for European Union (EU) allies to influence emergent US missile defence policy. With British Prime Minister Tony Blair scheduled to host President Bush in mid-July, the UK is well positioned to play a pivotal role in this regard.

2. New developments

An important clue regarding the probable direction of evolving US missile defence plans was provided recently by US Secretary of Defense Donald Rumsfeld, who dropped the word *'national'* from official missile defence nomenclature, clearing the way for advocacy of an explicitly global BMD.[1] This rhetorical shift away from National Missile Defence (NMD) signals the Bush Administration's sensitivity to European concerns that a unilateral US shield could split NATO by creating substantial vulnerability differentials among allies.

2.1 Advocacy of Boost Phase Intercept

In his May 1, 2001 speech and in subsequent statements, President Bush spelled out some possible elements of this more expansive vision of global missile defence protection: extension of the shield to friends and allies, BMD co-operation with Russia, and aggressive pursuit of Boost Phase Intercept (BPI) technology.

BPI systems are designed to intercept incoming missiles shortly after launch when burning propellant from booster rockets provides a distinct signature for heat-seeking interceptors.[2] Systems currently being discussed in the US include the following:

- *Airborne Laser (ABL).* A US Air Force project, the ABL would use a fleet of seven converted Boeing 747 jets as

---

[1] See 'Rumsfeld Plays Down the "National" in Missile Defence', *Space Daily*, March 8, 2001.

[2] See Richard L. Garwin, 'Boost-Phase Intercept: A Better Alternative', *Arms Control Today* 30 (September 2000), pp. 8-11; John Deutch, Harold Brown, and John P. White, 'National Missile Defense: Is There Another Way?' *Foreign Policy* 119 (Summer 2000), pp. 91-104.

platforms for oxygen-iodine chemical lasers. During a crisis, at least one jet would fly 40,000 feet above a *'state of concern'* and respond to enemy missile launches by using a series of five-second laser bursts to intercept ascending rockets.

- *Unmanned Aerial Vehicle (UAV).* This US-Israel joint venture is conceived as a technical alternative to ABL, using pilotless drones that would loiter over enemy launch sites, and fire hit-to-kill interceptors to foil rocket attacks.
- *Naval BPI.* This family of systems would use hit-to-kill interceptors (Block I or II Standard Missiles) mounted on *Aegis*-class cruisers to intercept enemy missiles during the boost phase. Variants include the US Navy's Lower Tier, Naval Area Defense (NAD) and Navy Theater Wide (NTW) systems.
- *Space-Based Laser (SBL).* This system would be composed of hydrogen-fluoride chemical lasers and remote sensing equipment deployed on a constellation of orbiting satellites that would fire super-bright lasers from outer space at enemy missiles shortly after launch.

BPI advocates contend that boost-phase systems offer a number of important advantages over other missile defence systems designed to engage ballistic missiles later in flight (e.g. mid-course and terminal phase intercept). The technical challenge posed by countermeasures is relatively less daunting for BPI, since it is much more difficult for adversaries to rig ballistic missiles with decoys and chaff in the boost phase. When deployed close enough to an adversary's launch site, effective BPI provides a virtually unlimited defensive footprint and therefore could protect US allies from attack. Successful BPI engagements penalize adversaries by scattering lethal debris from missile payloads on their own territory. Finally, most BPI systems rely primarily on space satellites for missile tracking and interceptor guidance, lessening dependence on ground-based early warning radars of the sort planned for deployment in the UK and Greenland.[3]

To date, no BPI system has been proven to work effectively, all are in early stages of development, and significant technical hurdles complicate the task of bringing reliable prototypes to fruition.[4]

2.2 The *'Scarecrow'* defence option

On April 23, 2001, Pentagon officials summoned Boeing, Inc. executive vice-president Jim Evatt to give a presentation on near-term BMD deployment options.[5] Subsequently, Bush administration missile defence advocates began floating the idea of fielding a rudimentary BMD system before 2004 (previous timetables cited 2007 as the earliest possible deployment date).

One quick deployment option mentioned in this context would involve the placement of five ground-based interceptors in Alaska. Another stop-gap measure under consideration would entail jury-rigging Navy *Aegis* cruisers with experimental

---

[3] On the strategic significance of such radars, see David Wright, 'National Missile Defence: The Role of RAF Fylingdales and Menwith Hill', *ISIS Briefing Paper on Ballistic Missile Defence No. 4* (March 2001).

[4] See Rodney Jones, 'Taking National Missile Defense to Sea: A Critique of Sea-Based and Boost-Phase Proposals', Council for a Livable World Education Fund Report (October 2000), online at http://www.clw.org/ef/seanmd.html

[5] 'Missile Defence Speedup Weighed; Implementing System By 2004 Considered', *Washington Post*, June 8, 2001. This episode is indicative of a larger trend toward corporate control of Pentagon decision-making under Rumsfeld. See 'Rumsfeld's "Defense Inc." Reasserts Civilian Control', *Washington Times*, April 24, 2001.

interceptors and then deploying the warships off the Korean coast before the 2004 presidential election. *'I think the administration will turn itself inside out to do this in 3.75 years'*, says Gregory H. Canavan, a senior scientist at Los Alamos National Laboratory. *'They need to make this [missile defence] a fact before the end of the first term'*.[6]

Proponents of such a crash deployment scheme acknowledge that any BMD deployed before all its components have been tested would be unreliable, yet they argue that this shortcoming would be outweighed by the system's symbolic value. According to Secretary Rumsfeld, missile defences *'need not be 100 percent perfect'* to have a deterrent effect on future adversaries.[7] On this logic, leaky shields are thought to work like scarecrows, frightening away enemies contemplating missile attacks.

Skeptics question this *'scarecrow'* rationale for hurry-up BMD deployment, pointing out that a reckless development timetable would require premature abrogation of the ABM Treaty and also create conditions for dangerous system malfunctions that could lead to tragic accidents. For example, in simulated tests assessed by the Pentagon's own Director of Operational Testing and Evaluation, an immature BMD system mistakenly identified a radar signal as an incoming missile, then launched interceptors at these *'phantom tracks'* after manual override attempts failed.[8] This malfunction was 'particularly frustrating' and made operators 'anxious' because 'there was no tool that could definitively warn operators when a phantom track appeared'.[9]

According to US Representative John Tierney (D-OH), *'one immediate danger in these types of situations is that adversaries may interpret these launches as a hostile first strike and respond accordingly'*.[10] This danger is exacerbated in the case of BPI, since as defence analyst Rodney Jones notes, *'Close-in boost-phase concepts depend on virtually instantaneous and therefore automatic reaction. The tyranny of reaction time is so short that the "man in the loop" disappears, and the potential for serious accidents rises correspondingly'*.[11]

The US could inadvertently sow the seeds of nuclear destruction by recklessly pursuing a poorly tested missile defense system prone to malfunction. Potential adversaries such as China and Russia often express concerns about missile defence's offensive capabilities. Such concerns could turn into a recipe for devastating nuclear exchanges in a world where accidental launches of US missile defense interceptors are perceived as acts of aggression.

2.3. The runaway train

One rhetorical strategy that Bush administration officials have employed recently to pre-empt incipient BMD

---

[6] Quoted in Jackson Diehl, 'Star Wars Lives . . . Once the ABM Deal is Killed', *Washington Post*, April 16, 2001.

[7] Donald Rumsfeld, statement during media availability following Honor Cordon and Lunch Meeting with Australian Defence Minister Peter Reith, May 1, 2001

[8] Philip Coyle, 'Director Operational Test and Evaluation Report in Support of National Missile Defense Deployment Readiness Review', August 10, 2000, p. 34, online at http://www.house.gov/reform /min/pdf/nmdcoylerep.pdf.

[9] 'The Coyle Report: A Comprehensive Pentagon Study Criticizing the National Missile Defense Test Program', Minority Staff Report, Special Investigations Division, Committee on Government Reform, US House of Representatives, June 26, 2001, online at http://www.house.gov/reform/min/pdf /nmdcoyleanalysis.pdf

[10] Letter from Rep. John Tierney to Rep. Christopher Shays, June 12, 2001, copy on file with the authors; see also Gordon R. Mitchell, '"Scarecrow" Missile Defense', *Pittsburgh Post-Gazette*, July 8, 2001.

[11] Jones, 'Taking Missile Defence to the Sea', *op. cit.*, p. 37.

opposition involves portraying such opposition as futile given that unstoppable political momentum makes missile defence deployment inevitable: *'By creating a sense that missile defense is inevitable, the administration hopes to defuse a potentially divisive debate within NATO before it can get hot'.*[12]

In official circles, this strategy receives expression in statements such as Secretary Rumsfeld's insistence that BMD deployment is *'a president's constitutional responsibility'*, and *'a moral issue'*. Such strident rhetoric is reinforced by presidential proclamations that the ABM Treaty is an *'ancient relic'* that *'enshrines the past'*. These themes are amplified in US editorial columns with headlines such as: 'Face It: Missile Defence is Coming'.[13]

3. Competing visions

As US BMD diplomacy has intensified, several competing security approaches have emerged. These alternatives have added depth to deliberations by widening strategic options available to European nations pondering the wisdom of US missile defence as a prudent response to weapons of mass destruction (WMD) proliferation. Two notable plans have come out of Russia and Germany.

3.1. Russia's BMD proposal

In February 2001, Russia unveiled a missile defence proposal of its own, *'Phases of European Missile Defense'*. Whereas American BMD is presented as a technological/military reaction to pre-defined threats, the Russian counter-proposal emphasizes political and diplomatic mechanisms for both evaluating and responding to potential dangers. Early accounts suggest the Russian concept is based on a three-pronged approach:

- A conference of experts will evaluate the threat of non-strategic missiles to European countries.
- If a potential threat is identified, a conceptual model for neutralizing the threat by *'political or other peaceful means'* will be developed.
- Only if the need arises, after diplomatic efforts have been exhausted, would elements of a mobile, non-strategic missile defence system be created.[14]

Initial discussions between former US Defense Secretary William Cohen and Russian Defense Minister Igor Sergeyev in June 2000 identified some form of BPI as a possible option for the third stage of the Russian plan. More recent Russian proposals appear to favor theater anti-missile systems with ranges of 30km and 150km, possibly modeled after the US *Patriot Advanced Capability-3 (PAC-3)* or Russia's *S-300* and *S-400 Triumph* system.[15]

European reaction to the Russian initiative has been mixed. NATO Secretary General Lord Robertson committed only to a *'careful study'* of the proposal.[16] Polish Defense Minister Bronislaw Komorowski echoed the skepticism of many western diplomats regarding the lack of technical specificity in

[12] 'The Missile Offensive', *International Herald Tribune*, February 7, 2001.

[13] Reg Henry, 'Face It: Missile Defense Is Coming', *Pittsburgh Post-Gazette*, April 22, 2001.

[14] 'Russian Minister Hands Proposals on European Missile Defense to NATO Head', *Moscow Interfax*, February 20, 2001, Foreign Broadcast Information Service (FBIS-SOV-2001-0221).

[15] 'Russia Shifts Missile Defence Position', *Jane's Defence Weekly*, February 28, 2001.

[16] *M2 Presswire*, February 21, 2001.

the Russian plan.[17] German Foreign Minister Joschka Fischer sided with the US State Department's view that the Russian plan corroborates US threat assessments and points up the need for redoubled non-proliferation efforts.[18]

3.2. Germany's *'Diplomacy First!'* plan

The *'Diplomacy First!'* initiative proposed by the Association of German Scientists (VDW) calls for intensification of diplomacy and pursuit of political controls on WMD as central pillars of a co-ordinated non-proliferation strategy. This approach envisions three tracks of European diplomacy as constructive alternatives to military-driven non-proliferation approaches such as BMD:

- Ratchet up pressure on Washington to preserve existing arms control agreements, especially the ABM Treaty.
- Pursue an international early warning and control system for ballistic missiles and space-based weapons.
- Establish institutionalized dialogue structures linking EU nations to *'individual problem states'* such as Iran, Iraq, Syria, and Libya.[19]

'Diplomacy First!' proponents see the current missile defence debate as a key opportunity for Europe to assert political agency in shaping the post-Cold War security architecture. From this perspective, the technical solution of defensive weaponry is an ill-advised elixir for the political problem of WMD proliferation. More appropriate alternatives can be founded on a *'policy of prevention'* that seeks to counter the spread of arms through diplomacy and dialogue rather than technological dominance and military intimidation.[20] Physicist Bernd W. Kubbig sees a process of joint European threat assessment as central to this approach.[21]

4. Europe's turn at the bargaining table

European dissent against a unilateral US NMD has already steered the Bush administration's missile defence policy in a more co-operative direction. As trans-Atlantic consultations proceed and details of the US plan for a global shield emerge, EU allies will have additional opportunities to influence the course of events. For example, it is expected that the Pentagon will soon want to re-configure its radar installations in Fylingdales, UK and Thule, Greenland for missile defence missions. A formal request by the US to allow such early warning radar upgrades would give Britain, Greenland and Denmark significant diplomatic leverage to alter US missile defence plans.

Other opportunities for European leaders to sway the US position through NATO's consultative channels are likely to materialize in the near future. European diplomats can maximise the constructive value of these negotiations if they approach the bargaining table with a clear view of the

---

[17] 'Europe Protected by US Anti-Missile System Possible', *BBC Summary of World Broadcasts*, February 24, 2001.

[18] 'Fischer Sees Way to Avert Shield Clash with Russia', *Washington Times*, February 22, 2001.

[19] 'A Warning against the USA's Missile Defense Plans–A Plea for a European "Diplomacy First!" Approach', Association of German Scientists (VDW) Memorandum (November 2000), online at http://www.hsfk.de/abm/forum/forum.htm

[20] See 'Europe Plans to Rein in American Missile Defense Plans with Diplomacy', *Frankfurter Rundschau*, November 20, 2000.

[21] See Bernd W. Kubbig, 'Ballistic Missile Defense and Arms Control: Positioning Europe as a Credible Actor in the "BMD Game"', Raketenabwehrforschung International Bulletin No. 12 (Summer 2000), online at http://www.hsfk.de/abm/bulletin/bulletin.htm

security stakes implicated by US BMD proposals and a lucid understanding of the political dynamics driving such initiatives.

4.1. BMD inevitability revisited

US missile defence advocates have succeeded in defusing some European opposition to BMD by projecting an illusion of inevitable deployment – after all, there is little sense in trying to stop a runaway train by throwing oneself in front of it.

However, a closer look at the considerable obstacles standing in the way of BMD deployment reveals that such an outcome is far from inevitable.[22] A daunting array of technical glitches and testing delays has pushed back the timetable for possible deployment of the Clinton administration's ground-based NMD.[23] The sea-, air- and space-based BPI systems touted by the Bush camp all have a long way to go before they can be considered realistic options.

Secretary Rumsfeld indicated recently a predilection to overlook these technical constraints and field a *'rudimentary'* missile defence system before 2004, regardless of whether it works.

While this *'scarecrow'* deployment strategy allows Bush administration officials to make an end-run around the laws of physics, it will not help them dodge the realities of politics. Secretary Rumsfeld learned this during recent congressional hearings, where Senators peppered him with hostile questions about the fast-track deployment idea.[24] Calling missile defence an *'uncertain trumpet at this point'*, Senator Max Cleland (D-GA) told Rumsfeld *'we ought not to blow it before we test it and fully make sure it is deployable'*. Earlier, Senator Tom Daschle (D-SD) said deployment of an untested BMD would be *'an embarrassment'*.[25]

Such congressional concerns have taken on new salience in the wake of Senator James Jeffords' (I-VT) defection from the Republican Party. This move gives Democrats control of the Senate and elevates missile defence moderates such as Daschle, Carl Levin (D-MI) and Joe Biden (D-DE) to key leadership posts. All three Senators say their new powers will be used to protect the ABM Treaty, perhaps by withholding funds for any BMD system not deemed treaty compliant.[26]

According to defence analyst Spurgeon Keeny, *'The Democrats' recapture of the Senate may well have administered the* coup de grace *to President George W. Bush's plan to withdraw from the Anti-Ballistic Missile (ABM) Treaty as the first step toward a robust national missile defense (NMD) in a world without arms control'*.[27] Despite dogged efforts by Bush administration officials to portray missile defence as a done deal, the political reality is that BMD deployment is still an open question. This should provide a measure of reassurance to EU allies concerned that trans-Atlantic missile defence consultation amounts to little more than *pro forma* ratification of decisions already made.

---

[22] Stephen Pullinger, 'Missile Defence: Preserving Strategic Stability', *ISIS Briefing on Ballistic Missile Defence No. 5* (April 2001).

[23] See 'Pentagon Study Casts Doubt on Missile Defense Schedule', *New York Times*, June 25, 2001.

[24] See 'Skeptical Senators Question Rumsfeld on Missile Defense', *New York Times*, June 22, 2001.

[25] Quoted in 'Post Report of a Fast-Track Missile Defense Plan Gets Mixed Reaction', *Aerospace Daily*, June 11, 2001.

[26] See John Rhinelander, 'The ABM Treaty: Critical Then and Now', *Coalition to Reduce Nuclear Dangers Issue Brief*, May 24, 2001, online at http://www.clw.org/pub/clw/coalition/briefv5n12.htm

[27] Spurgeon Keeny, 'Coup de Grace', *Arms Control Today* 31 (June 2001).

4.2. The ABM Treaty and Outer Space

The Bush administration's campaign to invalidate the ABM Treaty as quickly as possible is presented as a logical corollary of the drive to develop advanced missile defence technologies. According to this reasoning, the treaty should be set aside because its limits on defensive arms were designed for a Cold War environment that no longer exists.

However, there is another reason why Pentagon officials would like to see the ABM Treaty nullified. Namely, because of its prohibition on deployment of weapons in outer space, which blocks implementation of an emergent US military doctrine called *'space control'*. Some analysts warn that with the US economy and military highly dependent on space satellites for telecommunications and surveillance, the nation is vulnerable to a *'space Pearl Harbor'* – a devastating sneak attack on orbiting US satellites. This is the conclusion of the recently released Rumsfeld Commission Space Report, which recommends vigorous pursuit of space weaponry to *'negate the hostile use of space against US interests'*.[28]

Another official planning document, entitled *Vision for 2020* and published by the US Space Command, foresees *'space-based strike weapons'* as part of *'global engagement capabilities'* designed to enable *'application of precision force from, through, and to space'*. US pursuit of these *'strike weapons'* is imperative, according to Space Command officials, because *'space superiority is emerging as an essential element of battlefield success and future warfare'*.[29]

Secretary Rumsfeld's recent announcement that a four-star Air Force general will be put in charge of defending US space assets paves the way for rapid pursuit of space weaponisation.[30] However, this road is blocked legally by Article V of the ABM Treaty. This may explain why the Bush administration invests so much diplomatic energy in discrediting the treaty. Far from being an irrelevant *'Cold War relic'*, the ABM Treaty is perhaps the most relevant post-Cold War check there is against space weaponisation in the present milieu.

As defense analyst Daniel Gonzales notes, a prerequisite to deployment of space control weaponry *'... may well be a determined effort to develop a national ballistic missile defense system and a related decision to renegotiate key elements of the ABM Treaty or to abrogate the treaty entirely. Until then, it is difficult to see how robust anti-ASAT weapon systems could be developed, tested and fielded'*.[31]

Since any US attempt to overtly seize military control of outer space would likely stir up massive political opposition both home and abroad, defence analyst James Oberg anticipates that *'the means by which the placement of space-based weapons will likely occur is under a second US space policy directive — that of ballistic missile defense... This could preempt any political umbrage from most of the world's influential nations while positioning the US as a guarantor of defense from a universally*

[28] Report of the Commission to Assess United States National Security Space Management and Organization (January 2001), online at http://www.defenselink.mil/pubs/spacerelease.pdf

[29] United States Space Command, *Vision for 2020*, (February 1997), online at http://www.spacecom.af.mil/usspace/visbook.pdf

[30] See 'Pentagon Puts General in Charge of Space', *The Times (London)*, May 9, 2001.

[31] Daniel Gonzales, *The Changing Role of the US Military in Space* (Santa Monica, CA: RAND, 1999), p. 33.

acclaimed threat'.[32] In this scenario, ABM Treaty breakout, conducted under the guise of missile defence, functions as a tripwire for unilateral US military domination of the heavens.

A buildup of space weapons might begin with noble intentions of *'peace through strength'* deterrence, but this rationale glosses over the tendency that *'... the presence of space weapons...will result in the increased likelihood of their use'*.[33] This drift toward usage is strengthened by a strategic fact elucidated by Frank Barnaby: when it comes to arming the heavens, *'anti-ballistic missiles and anti-satellite warfare technologies go hand-in-hand'*.[34]

The interlocking nature of offense and defense in military space technology stems from the inherent *'dual capability'* of spaceborne weapon components. As Marc Vidricaire, Delegation of Canada to the UN Conference on Disarmament, explains: *'If you want to intercept something in space, you could use the same capability to target something on land'*.[35] To the extent that ballistic missile interceptors based in space can knock out enemy missiles in mid-flight, such interceptors can also be used as orbiting *'Death Stars'*, capable of sending munitions hurtling through the Earth's atmosphere.

The dizzying speed of space warfare would introduce intense *'use or lose'* pressure into strategic calculations, with the spectre of split-second attacks creating incentives to rig orbiting Death Stars with automated *'hair trigger'* devices. In theory, this automation would enhance survivability of vulnerable space weapon platforms. However, by taking the decision to commit violence out of human hands and endowing computers with authority to make war, military planners could sow insidious seeds of accidental conflict.

Yale sociologist Charles Perrow has analyzed *'complexly interactive, tightly coupled'* industrial systems such as space weapons, which have many sophisticated components that all depend on each other's flawless performance. According to Perrow, this interlocking complexity makes it impossible to foresee all the different ways such systems could fail. As Perrow explains, *'[t]he odd term "normal accident" is meant to signal that, given the system characteristics, multiple and unexpected interactions of failures are inevitable'*.[36] Deployment of space weapons with pre-delegated authority to fire death rays or unleash killer projectiles would likely make war itself inevitable, given the susceptibility of such systems to *'normal accidents'*.

It is chilling to contemplate the possible effects of a space war. According to retired Lt. Col. Robert M. Bowman, *'even a tiny projectile reentering from space strikes the earth with such high velocity that it can do enormous damage — even more than would be done by a nuclear weapon of the same size!'*.[37] In the same Star Wars technology touted as a quintessential tool of peace, defence analyst David Langford sees one of the most destabilizing offensive weapons

---

[32] James E. Oberg, *Space Power Theory* (Washington, D.C.: US Space Command, 1999), p. 150, online at http://www.spacecom.af.mil/usspace/SPT/overview.htm

[33] Oberg, *Space Power Theory*, p. 155.

[34] Frank Barnaby, *The Automated Battlefield* (London: Sidgwick & Jackson, 1986), p. 116.

[35] Quoted in 'Toward International Security: The Role of Space Weapons, Anti-Satellite Weapons, and National Missile Defense', United Nations NGO Committee on Disarmament panel discussion, October 21, 1999, online at http://www.igc.org/disarm/spacep99.html

[36] Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (New York: Basic Books, 1984), p. 5.

[37] Robert M. Bowman, *Star Wars: A Defense Insider's Case Against SDI* (Los Angeles, Tarcher Press, 1986), p. 115.

ever conceived: *'One imagines dead cities of microwave-grilled people'*.[38] Given this unique potential for destruction, it is not hard to imagine that any nation subjected to space weapon attack would retaliate with maximum force, including use of nuclear, biological, and/or chemical weapons. An accidental war sparked by a computer glitch in space could plunge the world into the most destructive military conflict ever seen.

4.3. Space control and the agenda of trans-Atlantic missile defence diplomacy

Recent US moves confirm that the Pentagon's missile defence push is closely connected with a drive to dominate Outer Space. This linkage warrants moving the issue of space weaponry to the top of the agenda in trans-Atlantic missile defence negotiations.

For years, the US blocked international discussion of space weapon controls, arguing that such talks were unnecessary.[39] On November 20, 2000, 163 nations (including the UK) voted in favor of a UN resolution for *'Prevention of an Arms Race in Outer Space'*, which sought to *'reaffirm'* the Outer Space Treaty of 1967 and shore up its provision that space be reserved for *'peaceful purposes'*. The US abstained, reiterating its view that such agreements were unnecessary. This position is no longer tenable given US warnings of an impending *'space Pearl Harbour'*.

While the Rumsfeld Space Commission's alarmist prognostications may be based on worst-case assumptions, there is no denying that satellite dependency creates substantial security risks for the US. However, a drive to establish absolute military control of Outer Space will only exacerbate such risks by stimulating an anti-satellite weapon arms race. As defence analyst Michael Krepon argues, *'the best way to protect US satellites would be to head off such warfare in space before it ever got started, rather than to lead the charge'*.[40] This sentiment is echoed in Garwin's suggestion that *'now is the time for nations to discuss and possibly to negotiate a ban on weapons in space and on anti-satellite tests'*.[41]

There are a number of diplomatic instruments that could be adopted for this purpose. Since 1983, several draft treaties limiting anti-satellite weapons have been proposed and circulated. Informal agreements to ban space weapons and bar testing and deployment of dedicated anti-satellite weapons could build confidence outside the sometimes cumbersome formal treaty process. Krepon suggests that *'rules of the road'* for Outer Space could be modeled after the 1972 US-Soviet *'IncSea'* agreements designed to prevent collisions on the high seas.[42] Arms control analyst Rebecca Johnson sees an important role for non-governmental organizations in this context. According to Johnson, it may be possible to generate momentum for a ban on space weapons by replicating the *'Ottawa process'* that used grassroots pressure from civil society to galvanize a worldwide prohibition on landmines.[43]

---

[38] David Langford, *War in 2080: The Future of Military Technology* (Devon, UK: Newton Abbot, 1979), p. 140.

[39] See 'Race to Space', *Stratfor Global Intelligence Update*, February 27, 2001.

[40] Michael Krepon, 'Lost in Space: The Misguided Drive Toward Antisatellite Weapons', *Foreign Affairs* 80 (May/June 2001), p. 7.

[41] Richard Garwin, ''Toward International Security: The Role of Space Weapons, Antisatellite Weapon Tests, and National Missile Defense', Presentation at the United Nations, October 21, 1999.

[42] Krepon, 'Lost in Space', op. cit., p. 7.

[43] Rebecca Johnson, 'Multilateral Approaches to Preventing the Weaponisation of Space', *Disarmament Diplomacy* 56 (April 2001), online at http://www.acronym.org.uk/dd/dd56/56rej.htm

It may be much more difficult to constrain space weaponisation once an ASAT arms race is already underway. Therefore it is important that comprehensive controls on space weaponry be installed *before* any substantial changes are made to the ABM Treaty. A strategy of diplomatic linkage could maximise EU allies' diplomatic leverage in this regard by making a ban on space weapons a prerequisite for further progress in trans-Atlantic missile defence negotiations.

4.4. Cooperative threat assessment and preventive diplomacy

Recently proposed Russian and German non-proliferation plans emphasize a multilateral assessment of WMD threats and a prioritization of political dialogue as preventive measures designed to address underlying motivations for WMD proliferation. They do not position *'states of concern'* as presumptive enemies immune to diplomacy.

These approaches deserve serious consideration as viable alternatives in trans-Atlantic missile defence negotiations. The most promising aspect of these counter-proposals involves their move from techno-strategic solutions toward a more thorough understanding of the political nature of the WMD threat. This paves the way for institutionalized dialogue that could provide a forum for US and EU allies to confront their own roles as drivers of WMD proliferation (through arms sales, unilateral military intervention, etc.).

Early indications reveal that the Bush administration's interest in such preventive approaches may be lukewarm at best. When South Korean President Kim Dae Jung visited President Bush in March, the Nobel Prize winning diplomat got a chilly reception and Bush said he was putting the brakes on non-proliferation talks with North Korea. Defence analyst Leon Sigal notes one possible reason behind the administration's diplomatic deep freeze: it *'wanted North Korea as the poster child for its campaign to deploy missile defenses against so-called rogue states'*.[44] This interest in conflict creates a diplomatic conflict of interest, where US aerospace industry profits and domestic political advantage trump diplomatic efforts to secure a sustainable peace.[45]

In May, Goran Persson, the Swedish Prime Minister, led a delegation of EU diplomats to Pyongyang for talks with North Korean leader, Kim Jong Il.[46] This initiative shows how it is possible for European nations to pursue non-proliferation diplomacy with *'states of concern'*, independently of the US. Putting the significance of this independent action in perspective, Korean defence analyst Cheong Wooksik notes that *'one of the most effective means to stop NMD/TMD is to facilitate the peace process on the Korean peninsula'*.[47] According to the German VDW Memorandum, such diplomatic efforts on the part of EU nations could slow political momentum for US missile defences by rendering them redundant.

---

[44] Leon V. Sigal, 'North Korea On Hold . . . Again', *Bulletin of the Atomic Scientists'* 57 (May/June 2001): p. 37.

[45] Although US diplomats recently reopened talks with North Korea, they 'set demands far broader' than those made by the previous administration, 'raising the prospect of protracted negotiations'. See 'US Toughens Terms for North Korea Talks', *New York Times*, July 3, 2001.

[46] See 'Europe Discovers North Korea', *The Economist*, May 5, 2001, p. 36.

[47] Cheong Wooksik, 'The Peace on the Korean Peninsula and US Missile Defence Plan', Paper presented at the Global Network Against Weapons and Nuclear Power in Space International Meeting, Leeds, UK, May 4-6, 2001, online at http://www.peacevision.org.uk/papers/wooksik.html

5. Conclusion

One week before the Integrated Flight Test (IFT-6) of the US ground-based BMD system, Bush administration officials indicated that they would move ahead with their missile defence program, regardless of the test result.[48] This candid admission is yet another manifestation of the Pentagon's steamroller strategy to ignore any obstacles that could interfere with its headlong pursuit of BMD.

This strategy is not consistent with US assurances to EU allies that trans-Atlantic missile defence consultation is *'genuine'* and could have a real bearing on emergent US policy. European leaders could test the veracity of these US assurances by proposing an immediate expansion of the trans-Atlantic security agenda to include discussion of controls on space weaponry. A US refusal to consider space weapon controls as a pre-requisite to possible ABM Treaty amendments would tip the Bush administration's hand and reveal an ulterior motive behind its campaign to make an early exit from the ABM Treaty: its drive to get a quick start on establishing a military monopoly of Outer Space.

However, such a monopoly could be difficult for the Bush Administration to achieve in light of domestic political opposition to full-blown, *'Star Wars'*-style space weaponisation. Independent diplomatic initiatives pursued by EU nations, designed to counter WMD proliferation by engaging *'states of concern'* in direct diplomacy, could bring such excesses into high relief. In turn, this could render implementation of the Pentagon's space control plans difficult by defusing political support for them in the US Congress.

---

[48] See 'Pentagon Sets Fourth Test Of Missile For July 14', *New York Times*, July 7, 2001.

Further Reading

Mark Bromley, 'European Missile Defence: New Emphasis, New Roles', BASIC Briefing Paper No. 36 (May 2001), online at http://www.basicint.org/BP36.htm

Bruce M. DeBlois, 'Space Sanctuary: A Viable National Strategy', *Airpower Journal* 12 (Winter 1998): 41-57, online at http://www.airpower.maxwell.af.mil/airchronicles/apj/apj98/win98/Deblois.doc

William D. Hartung and Michelle Ciarrocca, 'Tangled Web: The Marketing of Missile Defense 1994-2000', Arms Trade Resource Center Special Issue Brief (May 2000), online at http://worldpolicy.org/projects/arms/reports/tangled.htm

Gordon R. Mitchell, 'National Missile Defense: An Overview', Raketenabwehrforschung International Briefing Paper (April 2001), online at http://www.hsfk.de/abm/forum/pdfs/mitchnmd.pdf

John Newhouse, 'The Missile Defense Debate', *Foreign Affairs* 80 (July/August 2001): 97-111.

Geov Parrish, 'The Pentagon's Trojan Horse – It's Theatre Missile Defence', *In These Times*, July 23, 2001, online at http://www.inthesetimes.com/web2517/parrish2517.html

Andrew J. Pierre, 'Europe and Missile Defense: Tactical Considerations, Fundamental Concerns', *Arms Control Today* 31 (May 2001).

Jurgen Scheffran, 'Moving Beyond Missile Defence: The Search for Alternatives to the Missile Race', *Disarmament Diplomacy* 55 (March 2001), online at http://www.acronym.org.uk/dd/dd55/55beyon.htm

Claus Telp, 'The British Government's Position in the Ballistic Missile Defence Debate', Raketenabwehrforschung International Bulletin No. 11 (Summer 2000), online at http://www.hsfk.de/abm/bulletin/telp1.htm

Tomas Valasek, 'Europe's Role in National Missile Defense', Center for Defense Information Issue Brief (September 2000), online at http://www.cdi.org/hotspots/issuebrief/ch8/index

Various papers presented at the Global Network Against Weapons and Nuclear Power in Space International Meeting, Leeds, UK, May 4-6, 2001, online at http://www.peacevision.org.uk/papers.html