Chaillot Papers

- 48 -

July 2001

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Thérèse Delpech, Shen Dingli, Lawrence Freedman, Camille Grand, Robert A. Manning, Harald Müller, Brad Roberts and Dmitri Trenin

Edited by Burkard Schmitt

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INSTITUTE FOR SECURITY STUDIES
WESTERN EUROPEAN UNION

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Western European Union

Paris - July 2001

CHAILLOT PAPER 48
(*A French version of this paper is also available from the Institute*)

The Institute for Security Studies of Western European Union

Director: Nicole Gnesotto

ISSN 1017-7566

Published by the Institute for Security Studies of Western European Union and printed in Alençon, France, by the Imprimerie Alençonnaise.

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Preface

In nuclear matters more than in any other political area, perceptions have the force of law. The most concrete nuclear technology would count for little without the extremely sophisticated theories of uncertainty that form the basis of any nuclear deterrence strategy. Yet for the last few years both the technological and intellectual worlds of deterrence, as mankind has known it since 1945, have been in turmoil on all continents.

It is above all the United States that is setting the tone. George W. Bush's determination to develop anti-missile defences is merely the visible aspect of new American agitation over its strategic posture. Why, in recent years, has US perception of the global nuclear equation undergone such upheaval? Why is the Administration convinced of the urgent necessity for a complete overhaul of the international strategic system? Neither an analysis of the threat nor technological capabilities provide adequate answers to these questions.

Certainly, nuclear and ballistic proliferation have been advancing steadily since the collapse of the Soviet system, and it would be foolhardy not to be concerned about this. None the less, given that proliferators present more of a threat to European territory than to the United States, and since China is officially left out of America's rationale, the strategic reasoning behind anti-missile defence programmes is viewed with scepticism by many Europeans. Moreover, proliferation can appear to be as much the possible effect as the cause of NMD, which can therefore be seen as a cure that is worse than the ailment. The relationship between proliferation and defence is in fact awesomely complex: if implementation of American anti-missile defence programmes implies de facto a new nuclear arms race for some, ingenious new ways of penetrating those defences for others and greater strategic instability for all, will not the necessity for defences then become even more evident, indeed irrefutable?

The current reality of technological breakthroughs is one of failure as far as all the tests carried out since the time of the Clinton administration are concerned. However, it is reasonable to suppose that the huge investment in anti-missile systems

made by the Administration in American companies will have incalculable effects on all of the aerospace industry, in particular civil and military uses of space: in terms of their comparative advantage for America, notably vis-à-vis European industry, the benefits could in the future be decisive. It is therefore hard to see how what is good for America would also be good for its European allies, if only in terms of industrial competition, knowing that the sharing of technology is far from standard practice in American government culture.

There is lastly the question of political motives. Curiously, this country that invented the most democratic social contract imaginable is today applying no less formidable energies to undoing the web of multilateral agreements and contracts that govern the functioning of international society – or at least freeing America itself from all the constraints of the system. Again in the area of strategic regulation, American repulsion concerns multilateral agreements (refusal to sign the CTBT, for example) as well as the legacy of US-Russian bilateral arms control (determination to leave the ABM Treaty). This fever over sovereignty, which is fuelled by a Utopian faith in technology that is so dear to American society, has now been brought to a climax by the new Bush administration. The aim is to free America from all its constraints while at the same time increasing its range of strategic options: a traditional nuclear option, maximal conventional power (the RMA), deterrence and defence; in short, a little of everything but as decided by Washington alone. Hence the simultaneous fashion for unilateral disarmament proposals, concerning, for instance, strategic weapons. At this stage of developments in America, one is even entitled to wonder whether this rejection of negotiated constraints will not also apply to alliances themselves, which would lose their value as permanent arrangements and become a pool of more or less ad hoc voluntary coalitions and a fertile ground for promoting the latest American technology.

The huge media campaign launched by Washington to convince the world of the universal benefits of its anti-missile projects is, however, not the easiest part of the current American revolution. Already, the defection of Republican Senator James Jeffords limits the Bush administration's room for manoeuvre and makes strategic issues subject to the internal political bargaining that is inherent in any cohabitation. Nor will it be easy to sell to America's partner countries, even its closest allies, the idea that strategic deregulation should paradoxically become the rule in international

relations in future. Yet without that support, is it not possible that America will become nothing more than a 'rich, lonesome cowboy'?

In addition to the immediate questions of American anti-missile defence, this *Chaillot Paper* attempts to examine all aspects of this strategic revolution in the making – and its international consequences. Under the editorship of Burkard Schmitt, a research fellow at the Institute, leading European, American and Chinese specialists accepted our invitation to contribute their analyses of the future of nuclear weapons and what has been for long termed international strategic stability.

For members of the European Union, the challenge will be, once again, to act in concert. The conclusion of this paper, by Burkard Schmitt and Camille Grand, includes suggested elements of a common European position on the question of anti-missile defence and nuclear deterrence in general. It is certainly no accident that the co-authors of this conclusion are German and French.

Nicole Gnesotto
Paris, June 2001

Introduction

Burkard Schmitt

During the Cold War, nuclear weapons dominated international relations and military strategies. Because of their pre-eminence and omnipresence, they became *the* symbol of East-West confrontation.

It is thus not surprising that the end of the Cold War saw a marked decline in the importance of the 'ultimate weapon'. During the early 1990s, even an end to the nuclear era did not seem out of the question: massive reductions in nuclear arsenals, the creation of new nuclear weapon-free zones (NWFZ) and the indefinite extension of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) all seemed to indicate the possibility of a world that would be increasingly less nuclear or even ultimately denuclearised.

That vision turned out to be premature, however. Certainly, nuclear weapons are less relevant today than during the confrontation between the two blocs. The strategic reality is nevertheless much more sombre than was hoped ten years ago: risks of the use of weapons of mass destruction in regional crises have risen; the disarmament process is held up by the maximalist claims of the abolitionists on the one hand and the hesitation of the nuclear powers on the other; the non-proliferation regime is called into question by the revisionist ambitions of some and the partial disengagement of others; and anti-missile defences could revolutionise the strategic equation by precipitating a new race between offence and defence.

In short, the end of the Cold War was merely the end of a chapter and not of the history of nuclear weapons. Strategic stability, which was based on a balance between the two superpowers, has disappeared, the nuclear landscape is undergoing a radical transformation and many imponderables are making the situation more complex, and in certain respects more dangerous, than in the past.

Tranquillised by the virtual disappearance of the nuclear dimension from their own security policies, Europeans have for long underestimated, or even ignored, that reality. American plans for a National Missile Defence (NMD) have reminded them of the continuing relevance of nuclear issues. Europe is

thus facing a new nuclear debate that it would have preferred to sidestep but is now too important for it to abstain from.

What makes this situation all the more delicate is that nuclear weapons have traditionally been an issue on which Europeans are divided. The divergences between nuclear and non-nuclear powers, on the one hand, and the multiplicity of deterrent concepts (British, French and NATO), on the other, are today less visible but nevertheless still exist. If to that one adds the sensitivity of public opinion in most European countries and the predominance of the Balkans in the security debate in Europe, it is easy to understand why the EU has up till now developed its CFSP and ESDP on the explicit understanding that they exclude nuclear questions (with the exception of non-proliferation, in which the EU played a part in preparation for the 1995 and 2000 NPT conferences).[1]

Given the possible implications of anti-missile defences for international relations in general, and the nuclear equation in particular, this self-imposed restriction on EU policy seems largely outdated. American ambitions could well have serious consequences for deterrence, disarmament and non-proliferation. If the Europeans wish to have a say in a debate that directly concerns the security of their continent, they will be obliged not only to speak with one voice and act through the Union, but also to examine together *all* aspects of the nuclear question.

It is with that in mind that the Institute decided to publish this *Chaillot Paper*. Eight well-known experts have contributed to this work, whose aim is precisely not to restrict itself to a discussion of Ballistic Missile Defence (BMD) but rather to cover the whole spectrum of nuclear problems. The first two contributions follow a functional approach, whereas the others deal with issues region by region.

In the first chapter, Thérèse Delpech ponders how important the changes in the role of nuclear weapons over the last ten years have really been. She examines the various, and in some ways contradictory, developments that

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[1] See Camille Grand, 'The European Union and the non-proliferation of nuclear weapons', *Chaillot Paper* 37 (Paris: Institute for Security Studies of WEU, January 2000).

have occurred in different parts of the world. Finally, she asks what the new conditions for strategic stability in a 'second nuclear age' are.

In the second chapter, Harald Müller looks at aspects of arms control and non-proliferation. He shows how, today, these two concepts are being called into question but why they are nevertheless still valid. Analysing factors that will determine the future course of events, he stresses the special importance of American policy and Europe's specific interests in these areas.

Robert A. Manning considers the nuclear weapons policy of the United States in the third chapter. He shows that the US debate is not limited to BMD, and explains the various positions taken on nuclear weapons. He also analyses US difficulties in adapting to strategic changes, and the elements that will help define a new nuclear doctrine.

In the fourth chapter, Lawrence Freedman deals with deterrence in Europe. He first analyses strategic developments over the last fifty years and shows the extent to which nuclear weapons have been sidelined since the end of the Cold War. He concludes by looking at the implications of NMD for European interests and the *raison d'être* of nuclear deterrence in Europe.

In the fifth chapter, Dmitri Trenin discusses the situation in Russia. He analyses the former superpower's difficulties in the face of the challenges of budgetary constraints, weakness in conventional forces and American plans for a BMD. He then explains how Moscow is trying to deal with these problems and the direction that Russian nuclear policy might take.

Finally, Brad Roberts and Shen Dingli analyse the nuclear equation in Asia. The two authors reveal the complexity of a continent in which nuclear weapons play a crucial role and nuclear risks are as serious as they are numerous. They then show the special importance of Sino-American relations for strategic stability in this part of the world.

The text by Brad Roberts and Shen Dingli is for the Institute ground-breaking: for the first time we have invited an Asian author to contribute to one of our publications. The experience is especially interesting since here a Chinese expert gives his view alongside an American. At a time when relations between these two powers could change from strategic partnership

to strategic rivalry, this academic cooperation on such a sensitive subject seems of particular importance.

It is also a novelty for the conclusions of a *Chaillot Paper* to be co-authored. By involving Camille Grand, a second expert of a different nationality, the editor of this paper has wished to emphasise its European spirit. Indeed, the aim is not only to sum up the findings of the preceding chapters but also, and in particular, to formulate conclusions for the European Union. By ending with a catalogue of practical recommendations, we hope to help launch a fruitful debate on a difficult and challenging subject.

Chapter One

NUCLEAR WEAPONS: LESS CENTRAL, MORE DANGEROUS?

Thérèse Delpech

I.1 A dynamic strategic context

In July 1953, Robert Oppenheimer published an article in *Foreign Affairs* which began with the following sentence: 'It is possible that in the large light of history, if indeed there is to be history, the atomic bomb will appear not very different than in the bright light of the first atomic explosion'. Through the radical increase in firepower it represented, the nuclear weapon transformed warfare even before it brought the Second World War to an end. By making possible a scale of destruction in the heart of enemy territory out of proportion to any gains that might be achieved by war, it dramatically enhanced the strategic significance of bombers that Giulio Douhet had foreseen some years earlier. The bomb, which eliminated any hope of conventional retaliation, thus became for many the ultimate weapon that had been sought for so long. In other words, at the end of the Second World War it gave the United States overwhelming, unchallenged power,[1] simply because it was the world's sole nuclear state, there being as yet no proliferation, intercontinental ballistic missiles or nuclear stockpiles.

By the time Oppenheimer's article was published, the situation had already evolved. Granted, the arms race with the USSR was just beginning, there having been only three Soviet nuclear tests thus far, with fissile material production in an early stage, and with Moscow some four years behind Washington. Be that as it may, there were now two nuclear adversaries who

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[1] When President Truman informed Stalin that the United States possessed a new weapon, at Potsdam in 1945, it does not seem that he grasped the extent to which this weapon could act as a force multiplier. Stalin for his part did not initially understand the fundamental change that nuclear weapons were going to make to his relations with Washington. It was only when the American arsenal grew and nuclear weapons were deployed close to the USSR that 'realism' made some headway in the Soviet Union. Just as the United States quickly lost its decisive advantage in this domain, so the present technological gap between the United States and the rest of the world may be deceptive.

possessed both versions of the nuclear weapon (A (fission) and H (fusion)), and this had already led to a profound shift in the strategic environment. The first Soviet thermonuclear test took place in July 1953 just as Robert Oppenheimer's article appeared. However, mutual nuclear deterrence dated back to 1949. Consequently, even the slightest possibility of nuclear retaliation gradually induced political leaders to be most cautious in their use of nuclear threats.[2] There is ample historical evidence of this evolution because whilst the 1950s witnessed five nuclear crises, there was only one in the 1960s (the most serious), and a last one in 1973 during the Yom Kippur War.

In many ways, the Korean War was the first proving ground for nuclear policy, with Presidents Truman and Eisenhower adopting two different approaches. Truman refused to use the nuclear threat as advocated by General MacArthur, whilst Eisenhower declared in 1953 that the United States would use 'all available means', which seemingly contributed to the signing of the armistice. Just one year later, at the time of Dien Bien Phu, the possibility of using nuclear weapons as a warfighting gambit was again a subject for debate in Washington, quickly terminated by President Eisenhower. In 1956, during the Suez crisis, it was Moscow that brandished the nuclear threat. Nuclear weapons came again into the picture in 1958 during the crisis over the Quemoy and Matsu islands. The most serious nuclear crisis (the Cuban missile crisis) was to occur four years later, in September-October 1962. This was the closest the world has ever come to a nuclear exchange. Thereafter, in 1965 and 1966, US bombing in North Vietnam raised fears of renewed nuclear tension with the USSR and China, but it did not materialise. Finally, in 1973 US nuclear forces were put on alert when the Soviets threatened to intervene in the Middle East during the Yom Kippur War. In short, after two eventful decades in the 1950s and

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[2] The first writings on nuclear weapons date from 1946; in particular Bernard Brodie, *The Ultimate Weapon* (New York: Harcourt, 1946) and John Viner, 'The Implication of the Atomic Bomb for International Relations', *Proceedings of the American Philosophical Society*, January 1946. In 1960, Herman Kahn published *On Thermonuclear War* (Princeton, NJ: Princeton University Press, 1960). On the development of Soviet thinking on nuclear weapons, see the works of Fritz Ermarth and William Odom, but also Honoré M. Catudal, *Soviet Nuclear Strategies from Stalin to Gorbachev* (New Jersey: Atlantic Highlands, 1988); Raymond Garthoff, *Deterrence and the Revolution in Military Doctrine* (Washington, DC: The Brookings Institution, 1990); and Stephen Shenfield, 'The Nuclear Predicament', *Chatham House Papers*, 37 (London: Royal Institute of International Affairs, 1987).

1960s, there were fewer and fewer international crises involving the potential use of nuclear weapons. Whilst international security had, in Winston Churchill's words, been linked to terror since the late 1940s, the new weapon gradually imposed moderation in strategic affairs upon political leaders. Indeed, whilst always present, particularly at times of tension, the nuclear factor has not been used to settle issues in which no 'vital' interests were at stake. Its utility was in perpetuating the division of the world into Western and Soviet spheres of influence, which could not be challenged.[3]

This moderation probably accounts for the fact that, some fifty years later, the only similarity between the world of 2001 and that of 1953, albeit an essential one, is that nuclear weapons have remained unused. Hiroshima and Nagasaki remain unique. In a way that would be surprising, were it less familiar, nuclear weapons have combined a central place in international affairs with an almost virtual presence. Apart, that is, from nuclear tests. The strong reactions that were provoked by French tests in 1995 and 1996, and those of India and Pakistan in 1998, have shown to what extent keeping a low profile has become essential to the continued presence of nuclear weapons. Any state that wished to renew testing would expose itself to international protest. The new US administration, tempted as it clearly is to develop new nuclear warheads, should take this factor into consideration.

At the same time, the discreet presence of nuclear weapons should not turn attention away from one of the most significant differences between today's world and that of 1953. There are now seven overt nuclear powers, instead of two, which drastically modifies the strategic context by making the nuclear phenomenon more global. In addition, the Middle East, traditionally the most unsettled region on the planet, contains one state, Israel, which has always claimed that its interests are best served by a policy of ambiguity, even though it is widely assumed to have a significant nuclear arsenal.

Ten years after the end of the Cold War, several tens of thousands of nuclear weapons are still deployed worldwide and widely available ballistic missile technology has effectively nullified distance, a time-honoured protection

[3] However, the Cold War was a period of enormous risk, as has gradually become apparent since it ended. Apart from the Cuban missile crisis, there were a number of incidents when the superpowers risked nuclear annihilation through false alarms or misperceptions (in November 1979, in June 1980 and in September 1983).

against attack. The presence and influence of nuclear weapons is still profound, there being a nuclear dimension to several crises that have taken place since the end of the US-Soviet confrontation. These have included the use of deterrence in the early stages of the Gulf War in 1991, the withdrawal of strategic and tactical nuclear weapons from the former Soviet republics between 1992 and 1995, the Korean crisis in 1993-94.

While the 1940s and 1950s were the dawn of the nuclear era, the early twenty-first century is sometimes perceived as its twilight, sometimes as the beginning of a new nuclear age. The role of nuclear weapons in the post-Cold War era has been under debate now for over ten years, and time has done nothing to clarify the issue. Even the historical record appears contradictory. In the early 1990s, the trend was toward the marginalisation of nuclear weapons, whereas the end of the decade witnessed a spectacular series of tests in South Asia. The first phenomenon – marginalisation – was linked directly to the demise of the USSR and the resultant hopes and expectations, while the second, marked by Indian and Pakistani nuclear tests, suggested a contrary development, at least as far as Asia is concerned.

The world's former second superpower, the Soviet Union, such an impressive presence at the time Oppenheimer wrote his article, collapsed not long after it had reached technological nuclear parity with the United States. The end of confrontation between the two blocs made it possible to consolidate a major wave of bilateral nuclear reductions between Washington and Moscow (INF and START). The marginalisation of nuclear weapons was illustrated by significant cuts in the American and Russian nuclear arsenals and, to a certain extent, those of the United Kingdom and France; by steps adopted unilaterally in the tactical domain; and finally by the decision to end nuclear targeting. The desire to reduce defence expenditure, increased requirements in the conventional field, the appearance of numerous interstate conflicts in which nuclear weapons could play no role, and the wish to reduce the role of these weapons at a time when proliferation became a major concern, have all been instrumental in marginalising nuclear weapons.

The United States, which exerts considerable influence in strategic affairs, is leaning heavily in the direction of further reductions with the election of George W. Bush. The new President, in a 1 May 2001 address to the National Defense University, has confirmed his intention to cut the US

nuclear arsenal, as he had announced during the presidential campaign. Indeed, no country other than Russia could justify the United States's current level of deployed nuclear forces. The new arsenal would be at the lowest level compatible with the security needs of the United States and its allies (extended deterrence). Thus, the possibility that the new US strategic arsenal will comprise less than 2,500 nuclear warheads, associated with the deployment of missile defences, cannot be ruled out. Since the new threats also affect the former adversary, Russia, the objective might well be a cooperative programme aimed at potential aggressors through a variety of arrangements involving alert status, surveillance, and intelligence. Cooperative threat reduction might even replace, ideally, 'Mutual Assured Destruction' (MAD) between the two countries. The setting up of a mutual assurance system based on transparency and cooperation could also justify the scrapping of the ABM Treaty. As a first step, the two Presidents could specify, for instance in a common statement, what the United States and Russia could undertake jointly in the area of strategic early warning capabilities and theatre missile defences.

In Russia, there is also a debate about nuclear weapons, although for different reasons. Shortfalls in conventional capabilities, of which Russian generals are reminded daily in Chechnya, have led the military to two conflictual and opposing lines of thought: either a greater role for nuclear weapons, to which Russian nuclear doctrine assigns a lower threshold for their use; or the procurement of conventional assets and capabilities to the detriment of nuclear forces.[4] Vladimir Putin has so far kept a balance of sorts between these two competing tendencies, but it is a precarious com-

[4] See Nikolai Sokov, 'The Denuclearisation of Russia's Defence Policy', *Disarmament Diplomacy*, July 2000. The article sets out the views put forward at a meeting in Moscow on 12 July 2000 attended by the main personalities at the Ministry of Defence. Anatoly Kvashnin, the Chief of Defence Staff, advocated a marked increase in conventional forces at the expense of nuclear weapons as part of a broad plan for restructuring armed forces. The number of intercontinental surface-to-surface missile divisions would be cut from 19 to 2, and the number of missiles to 150 by 2003 or 2006, leaving a total of less than 1,500 strategic nuclear weapons. In his article, Nikolai Sokov indicates that, apart from rivalry between the two main protagonists, the proposal reflects the struggle between the 'generals of Chechnya' and the 'ballistic mafia'. He also emphasises that the Kvashnin proposal is a response to the speech made by candidate Bush in May 2000.

promise that could fall apart under budgetary pressures.[5] On 26 December 2000 Moscow announced that only six *Topol*-M missiles would be deployed per year instead of the 30 initially scheduled, which may indicate a shift to conventional forces. The nomination of Sergei Ivanov as Minister for Defence would be consistent with that policy. Deciding which nuclear policy to follow is not easy in Moscow. In addition to conventional requirements and a weak financial situation, two further factors have to be taken into consideration. First, an excessive disparity with the US would bolster the feeling in Washington that Russia is no longer a negotiating partner. Second, Moscow must reckon with new developments in the nuclear capabilities of China. Unlike Washington, which will retain for many years overwhelming superiority over Beijing, Moscow is faced with a quite different reality because China's nuclear weapons are not subject to the constraints of any treaty. Moreover, they continue to grow and modernise, while Russia's arsenal heads in the opposite direction. China's intentions as to the size of its arsenal in 2020 are anyone's guess, particularly if the army obtains, as a result of US missile defence, further and faster modernisation than originally planned.[6] Finally, the population and industry of Russian Far East territories are declining and there is great concern about their future, especially since there is no certainty that Russia would be capable of defending them should the need arise. The 1999 military exercises (*Zapad* 99) have shown that Russian conventional forces could not hold out more than three days against NATO. What would the corresponding period be in Russia's Far East against Chinese forces? Should that scenario be dismissed as highly unlikely, it might be pointed out that NATO attacking Kaliningrad is even less likely.

However, Russia's nuclear status vis-à-vis the West is more prominent than vis-à-vis the East. Any defensive measures which may have been taken at the border with China have been inconspicuous. By contrast, following the 1999 exercises in the Kaliningrad region, tactical nuclear weapons were reported to be have been moved in June 2000 into the region between Lithuania and Poland. Beyond the lessons drawn from the 1999 exercises, what might have been the reason for such a step? A warning shot in antici-

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5 'Russian Military Irks Putin with Nuclear vs Conventional Dispute', *International Herald Tribune*, 1 December 2000.

6 See Dmitri Trenin, 'Russia's China Problem' (Carnegie Moscow Center, 1999); and 'Facing Nuclear Dangers. An Action Plan for the Twenty-First Century' (Tokyo Forum report, July 1999).

pation of NATO enlargement to the Baltic states in 2002, a display of bad temper prior to a decisive NMD test in July 2000, or a test of US resolve during the presidential campaign? In any event, what is an unfortunate move, if confirmed (Moscow has denied it), would show once again that the 'denuclearisation of Russian defence policy' has limits that can hardly be ignored, particularly in Europe. The United States, the bordering countries of the Kaliningrad enclave and the European Union have all questioned Moscow and received no satisfactory answer. While the move may be political rather than military in nature, Europe needs to pay attention to it, if only to underscore the lack of transparency affecting Russian tactical nuclear weapons, more of a concern to Europe than to the United States. In the same way, adjustments in Russian nuclear doctrine towards lower nuclear thresholds should, in the main, worry Europe, but comments on this issue during Vladimir Putin's visit to European capitals were sufficiently low-key as to escape the media's attention.

The countries of Europe remain as divided as ever over the nuclear issue at a moment when they are involved, for the first time, in a serious conventional effort. They are simply not collectively engaged in any serious forward thinking about the implications for them of the developments taking place in the United States and Russia, not to mention China. Their respective positions on missile defence are mainly reactive, the need they recognise for TMD capabilities is receiving no significant funding, new generation weapons (for instance, directed energy arms) attract only sporadic interest; and Europe's involvement in Russian nuclear and chemical disarmament remains fragmented and in no way compares with the major US programmes. Finally, European states are lagging in one other significant area. There has been no collective study undertaken on WMD threats to Europe ten to fifteen years from now. Yet, this would be the only serious basis for discussions with the United States, particularly at a time when counter-proliferation is again a popular issue in Washington.

The Europeans, thus, run the risk of carrying little weight in the ongoing debate and, more particularly, appearing to be in disarray. One thing is clear, they will not be spared the consequences of current developments. First, significant unilateral reductions in the United States and Russia could raise new questions about the size of the French and British nuclear arsenals, even if US cuts make it essentially possible to enlarge America's strategic reserve. Secondly, a decision to go ahead with missile defences would

oblige the Europeans to take a position on a subject which is not among their priorities, weighing up their interests as allies of the United States and neighbours of Russia, as during the Cold War, but also in the context of profound pressures on their defence budgets. Thirdly, the Europeans should not ignore ballistic missile and nuclear developments taking shape in Asia, since sensitive technologies of East Asian origin are being sold close to their territory. Security in the twenty-first century is, to a large extent, determined by events in Asia. Those wishing to count on the international scene will have to understand developments there.

The other side of the Eurasian continent has been witnessing a different turn of events, which has become clearer since the Indian and Pakistani nuclear tests:[7] Far from marginalising nuclear weapons, certain Asian states (from the Middle East to East Asia) are strengthening their ballistic missile and nuclear inventories for reasons that the West finds difficult to comprehend. Moreover, these developments are affecting zones where the use of such weapons cannot be ruled out. In India-Pakistan relations, 1998 heralded an era of uncertainty over the effects that the development of nuclear and ballistic forces will have on the territorial disputes over Kashmir and elsewhere. In spring 1999, during the Kargil conflict, this new reality was clear to all concerned. Admittedly, both Washington and Beijing brought home to Pakistan the 'sanctity' of the line of control, but for as long as it has not been turned into an international border uncontrolled escalation will remain possible. In East Asia, new nuclear players may emerge in the next decades, as long as the Korea and Taiwan issues have not been resolved peacefully. In addition, although the aims of China's ballistic missile and nuclear modernisation programmes are not known, the fact that China is the only nuclear weapons state building up its arsenal is frequently underlined. Further, and perhaps above all, the only possible nuclear conflict involving major powers in the coming decades is likely to be related to Taiwan. Finally, in the Middle East, clandestine programmes to develop WMD in many cases escape international control. This includes Iraq since December 1998. As to Israel, which has never declared its capabilities, renouncing the nuclear option is more unthinkable than ever, with the peace process going through one of the most trying phases in its history. That, in turn, may

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[7] See Thérèse Delpech, 'Nuclear Weapons and the New World Order: Early Warning from Asia?', *Survival*, vol. 40, no. 4, Winter 1998-99.

encourage countries in the Middle East to continue pursuing clandestine WMD programmes.

In all the above regions, the recurrence of armed conflicts since 1945, the severity of the tensions and the absence of a recognised status quo make nuclear weapons more dangerous because they increase the risk of use. In the days of the East and West stand-off, the central issue was the preservation of an order acknowledged by both sides. As Michael Quinlan put it,[8] the Iron Curtain was an unpleasant reality, but it was at least a clear dividing line. No such thing exists in the Middle East, between India and Pakistan or in East Asia. As a result, the traditional role of nuclear weapons, i.e. preserving the status quo, does not apply, because it goes, by definition, against the wishes of those who challenge regional or international order. Nuclear weapons as a 'paralysing power' give satisfaction to the satisfied, not to those wishing to change the regional or international order. Ballistic missile proliferation in many Third World countries could be assessed in that context, because it gives non-conventional programmes a considerable capacity for intimidation that extends way beyond regional borders.[9] To the United States, which had for decades learned to live with its vulnerability vis-à-vis Moscow, the idea of having to reckon with possible attacks from Tehran, Pyongyang or Baghdad is intolerable, not just because of the random, unpredictable nature of the threat, but because of its highly asymmetrical character. Since many states involved in ballistic missile proliferation are in Europe's neighbourhood, one might imagine that European countries would share that view, but that is not the case. Even Italy, which came under attack from Libya in 1986, rarely expresses concern. Whether this equanimity persists in ten to fifteen years from now will depend on the evolution of proliferation in the Mediterranean area, which it would be advisable not only to monitor but see increased efforts to contain.

What are being witnessed, therefore, are contradictory developments. Some of them illustrate the continued marginalisation and restriction in the role of nuclear weapons whilst others may rather evoke a threat against the preservation of nuclear peace in the twenty-first century, which appears more fragile than in previous decades. True, the numbers of weapons is not

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8 Michael Quinlan, 'Is Indo-Pakistan Deterrence Stable?', *Survival*, October 2000.

9 Aaron Karp, 'The Spread of Ballistic Missiles and the Transformation of Global Security', *The Nonproliferation Review*, vol. 7, no. 3, Autumn-Winter 2000.

directly related to their use in wartime, as demonstrated by the US and Soviet arsenals which kept growing at least until the beginning of the 1980s. Moreover, the power of those weapons is often held up as a decisive factor in the avoidance of major armed conflict in Europe since 1945. However, several considerations should temper that judgement in the present context. First, the number of players, which tends to complicate the chessboard. Second, cultural differences which keep them apart and could cause misunderstandings. Third, the weakness of regulatory mechanisms in the most tension-prone regions. Fourth, crisis escalation which may get out of control as a result of these various factors. Fifth, leaders that are ill-prepared to handle crises involving non-conventional weapons.

I.2 Strategic stability in a second nuclear age

While the theme of a reduced role for nuclear weapons is steadily gaining ground in the United States, Europe and a large number of non-aligned countries, the notion of a second nuclear age has been emerging since the late 1990s.[10] It may be taken as having a number of meanings.

At its most basic, it can be understood as a simple acknowledgement that the end of the Cold War did not mean the end of nuclear weapons, either because the nuclear legacy of the past fifty years proves more burdensome than was assumed in 1989, or because more countries are taking an interest in those weapons. As indicated above, the early and late 1990s sit side by side in stark contrast. The end of the Soviet Union in 1991, together with the renunciation of nuclear weapons by six states from three continents (Argentina, Belarus, Brazil, Kazakhstan, South Africa and Ukraine), marked the beginning of a period of confidence in nuclear non-proliferation, confirmed by the indefinite extension of the NPT in May 1995. However, what will be remembered about the second part of that decade is a growing distrust of multilateral treaties, eloquently illustrated by the non-ratification of the CTBT by the US Senate, and a deeply sceptical attitude towards disarmament and non-proliferation. Such is the context in which counter-proliferation is gaining new momentum. The new structure of the US

[10] Paul Bracken, *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age* (HarperCollins, New York, 1999); Colin Gray, *The Second Nuclear Age* (Lynn Rienner Publishers, London, 1999); Keith Payne, *Deterrence in the Second Nuclear Age* (University of Kentucky Press, 1996).

National Security Council, giving counter-proliferation a place it did not have in the Clinton administration, indicates that the United States is preparing to confront opponents that possess WMD.

The term 'second nuclear age' could also mean that the new era is not bound by the rules of the old one. Relations between nuclear and conventional weapons are evolving rapidly, and new forms of deterrence are appearing. The idea that defences can play no part in a nuclear world will no doubt have to be revised to accommodate various combinations of offensive and defensive means. This trend is prompted in part by the belief that risk of use rises with the number of players. Fifty years of non-use have not enshrined a nuclear taboo. Past experience refers to highly specific historical and strategic circumstances. These distinctions are also necessary because nuclear weapons no longer have the same destruction monopoly, with the emergence of numerous offensive biological programmes that 'benefit' from the impressive breakthroughs achieved in life sciences. Countries that have renounced biological and chemical weapons and meet their commitments question the idea that nuclear weapons are only a deterrent to nuclear attacks. Thus, Tokyo was concerned about a possible United States response, should North Korea launch a biological attack against Japanese territory.

Last, a 'second nuclear age' could be a reference to new nuclear powers. As Robert O'Neill pointedly puts it, nuclear weapons would switch from 'Top Dogs' to 'Underdogs'[11] that cannot afford sophisticated conventional hardware. Such states are dissatisfied with a regional or international order that they regard as unfair. WMD could be instrumental in changing that order, either by coercion, threats, effective use or simply by possession. The function of these weapons is thus one of potential subversion as well as deterrence, for example when it comes to preventing outside intervention. Saddam Hussein's threats prior to the war in 1991 served both purposes: retaining the benefit of grabbing Kuwait while deterring the coalition's military intervention. This dual aspect must be kept in mind when considering the persistence of WMD in notoriously unstable zones like the Middle East.

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[11] See Robert O'Neill : "Weapons of the Underdog" in *Alternative Nuclear Futures, the Role of Nuclear Weapons in the Post-Cold War World* (Oxford University Press, 2000).

In any of the above meanings, the 'new nuclear age' is a cause for concern, particularly at a time when globalisation facilitates the flow of information and technologies, and when widespread access to 'dual-use' items complicates export controls. No-one seems capable of keeping in check a phenomenon with the potential capacity to trigger crises in several regions. Thus, nuclear-weapons states fear that the newcomers may play havoc with the delicate rules of deterrence. Countries favourable to de-nuclearisation are witnessing the emergence of new capabilities just when they were hoping to see nuclear weapons vanish with the Cold War. Tension-prone regions will have to rethink their security. From an Israeli perspective, the Iranian or Iraqi nuclear ambitions may challenge its monopoly in a region where any conventional conflict runs the risk of turning nuclear. From an Arab perspective the prospect of Israel's capability disappearing is more remote than ever. From a Japanese perspective, given that Japan renounced nuclear weapons in the firm belief that the 'nuclear club' would not enlarge, the Indian and Pakistani tests were a traumatic experience. In addition, Japan fears that nuclear weapons might get more attention in Beijing, at a time when they get less in Washington. There is no doubt that a shift in Japan's nuclear policy would give the 'second nuclear age' a more ominous overtone than the Indian tests endowed upon it. The new US-Japanese defence guidelines signed in 1997 were described as the 'foundation of the Asia-Pacific region', an expression taken up again by Colin Powell barely a week after he took office as Secretary of State in the new US administration. Will they be enough to reassure Japan in the coming decades?

One cannot define 'strategic stability' in a second nuclear age without overcoming the Cold War mindset. The concept itself belongs to the East-West confrontation. Strategic stability is not a balance of power in the Westphalian sense. It is the strange but relatively stable relationship that gradually built up between the United States and the USSR and in which nuclear weapons played a decisive role. It has become best characterised in the now famous expression 'Mutual Assured Destruction', implying parity in offensive means (and thus in vulnerability) and a limitation of defensive capabilities in a world where any comparative advantage was viewed as destabilising.[12] The concept thus designates a *status quo ante* where two

[12] Whereas John Lewis Gaddis, in *The Long Peace. Elements of Stability in the Post War International System* (Cambridge, MA: MIT, 1991), supports the classical thesis of the central role of nuclear parity, John Mueller, in *The Essential Irrelevance of Nuclear*

opponents of equal power devote a comparable level of resources to military competition. In theory, any advance by one of the players could be matched by the other. The mere announcement of 'Star Wars' was enough to expose a fiction that had previously been denounced by experts like Andrew Marshall who once again find themselves at the forefront of US policymaking.

Today, the balance has disappeared in all regards, including the nuclear field, even though the START process has stabilised both arsenals at comparable quantitative levels (around 6,500 strategic nuclear warheads as of January 2001). True, Russia continues to deploy new *Topol*-M intercontinental missiles and is developing a new generation of nuclear-tipped cruise missiles, the KH-102 (which also includes a conventional version). However, the effort required is proving difficult to sustain. As Russia's GDP is, in absolute terms, lower than the US defence budget, the myth of parity is precisely that – a myth. Moscow's concern is that its disadvantageous position might be further eroded, hence the insistence in Russian diplomacy on the hackneyed concept of 'strategic stability', which codifies the delusions of times past. The ABM Treaty, which is credited with greater merits than it deserves, cannot restore a balance that no longer exists, and 'strategic stability' is only spoken of so frequently because it no longer exists. Such rhetoric, including the frequently mentioned 'strategic partnership', is political and declaratory in nature, but has little substance, and its contribution to stability is imaginary.

The real question is not to preserve an order that has disappeared, but to look for forms of stability fit and relevant for this century. Some see a 'multipolar world', with the gradual emergence of less unequal power poles as the solution. Unfortunately, this world is just as likely to be one of confrontation as of stability, as shown by the European experience of the last three centuries, based as it was on the balance of power. At any rate, in the nuclear field, whatever other advantages multipolarity may have, stability is not one of them. It is at present characterised by the interaction of three major players (the United States, Russia and China) and the appearance, in addition to this trio, of actual or would-be nuclear weapons states,

Weapons. Stability in the Post War World (International Security Magazine, 1998), takes an opposite stance.

who make the strategic chessboard more complex whilst at the same time multiplying risks and complicating strategic decision-making.

Actually, bipolarity is gradually being replaced by three main actors, in which Beijing could envision, if the United States and Russia cut their nuclear arsenals to 1,500 strategic nuclear weapons, attaining parity at that level for the first time. For China's fissile material holdings may already represent an arsenal two or three times greater than the currently estimated 450 to 500 warheads. In addition, the new DF-31, JL-2 and DF-41 missiles, the scheduled number of which is not known, could be equipped with multiple warheads. Whatever the end result of China's modernisation, this tripolar relationship will be all the more unstable since any change between two of the partners affects the third, while developments in the United States/Russia/China triangle will also be felt in South and West Asia. As early as the Korean War, the Soviets were convinced that, should the United States plan a strike on China, it should consider a possible Russian response. However, at the time China was only a secondary player and India had not yet appeared on the nuclear scene. China being the 'forgotten nuclear power',[13] analysts rarely bother to look at this new three-sided relationship, where the major risk is a conflict over Taiwan, but from which the possible ramifications go much further. In particular, the Sino-Russian dimension is generally overlooked, even though the ambivalence of the relationship is at least as significant as those in the Russo-American relationship. Equally, all three countries have areas of cooperation and of competition but they are not clearly delineated and could change rapidly, depending on the circumstances. What can be taken for granted is that the Bush administration has not the slightest wish to establish a relationship of 'Mutual Assured Destruction' with China. It would be tantamount to entering a new Cold War with a much less predictable opponent than the USSR. Will the three players be capable of avoiding confrontations in the coming decades?

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13 Brad Roberts, Robert A. Manning and Ronald Monteperto, 'The Forgotten Nuclear Power', *Foreign Affairs*, Summer 2000; and, by the same authors, 'China, Nuclear Weapons and Arms Control' (Council on Foreign Relations, New York, 2000). Note that in 2000, on two occasions, the Defense Secretary, William Cohen (in July) and the Under Secretary of Defense for Policy, Walter Slocombe (in November) protested to Beijing over the portrayal of US intentions in Asia as 'hegemonic'.

Beyond this triangle, the 'nuclear multipolarity', which experts are beginning to analyse,[14] seems even more destabilising because it multiplies not only decision-making centres but also the strategic profiles and motivations of countries that have WMD programmes. India, China, Pakistan and Iran do not all necessarily have the same objectives, concepts of use, force structures or even civilian control over the military as the two major Cold War players. The impact of those differences on stability in this century will be all the more difficult to predict because little is known about them.

Another definition of nuclear stability would be the inclusion of elements of defence in a new US-Russia bilateral strategic agreement, and the creation of a new balance by limiting both offensive and defensive means. Deterrence would then be characterised by the two capabilities. That seems to be the view of the new National Security Adviser, Condoleezza Rice, who stated in the *Chicago Tribune* of 31 December 2000 that it should be possible to start discussions with the Russians about the relation between cuts in offensive strategic forces and the deployment of defences. That statement, however, should avoid leading to a misunderstanding of US-Russia relations as currently envisaged by the new Administration. It has limited interest in strategic negotiations with Russia, on the grounds that they would be too lengthy, too demanding in terms of verification and too costly politically. In addition, Moscow is viewed as too much of a lightweight to be a strategic partner. Should there be a negotiation, for instance to agree on a new security framework, it will be brief, unless the new majority in the Senate modifies that view. The US intention to ignore the ABM Treaty was clearly stated by President Bush in his speech of 1 May 2001 to the National Defense University. However, preventing another tactical rapprochement between Russia and China, together with an even more irresponsible Russian policy of sensitive transfers to the Middle East, could warrant greater diplomatic efforts. Washington would then have to accept limits on any missile defence system deployed, notably banning space-based interceptors, to which the new Administration is strongly attached. It should not be forgotten that the two risks set out earlier (namely Sino-Russian rapprochement and the proliferation of sensitive technologies

[14] Brad Roberts, 'Nuclear multipolarity and stability' (Institute for Defense Analyses, November 2000); and, earlier, a less substantive paper written shortly after the Indian and Pakistani tests: Sergei Rogov, 'Nuclear Weapons in a Multipolar World' (Center for Naval Analyses, October 1998).

in the Middle East) could also add significantly to the threats against which missile defences are supposed to provide protection.

On the Russian side, the situation is no clearer. If Moscow had a negotiation strategy it could recover the initiative. Unfortunately, there is no such strategy. What it offers instead are vague proposals, often ill-prepared and of a purely political nature, such as the various ideas it put to the Europeans on theatre missile defence. Whilst it would be in Russia's best interest to negotiate, this would mean agreeing a new strategic framework with the United States that would not only redefine limitations on defences but also reaffirm the joint goal of curbing proliferation. The agreement could also comprise the acquisition by the United States of some Russian armaments such as S300 missiles. Yet hostility towards any deal with Washington prevails in Moscow in both diplomatic and military circles. Disagreement with Washington is even sometimes seen as an opportunity for Russia to withdraw from other treaties (INF and CFE). Moreover, now that Democrats will be in a better position to slow the Administration's missile defence programme, Moscow might become even more reluctant to negotiate.

One last definition of nuclear stability, not incompatible with the above, would be to find ways to extend the nuclear peace the world has known for fifty years. This would imply both reducing the likelihood of conflict in zones where nuclear weapons exist and making crisis escalation unlikely in the event of such conflicts. The following proposals would assist in that process:

- A common intent to find peaceful solutions to the most threatening regional security issues. They are well known: the Middle East, Kashmir, the Korean peninsula and Taiwan. Any of them could trigger conflicts in the coming years, with the risk of escalation and the use of non-conventional weapons. At least one of these potential conflicts, Taiwan, carries a high risk of major war. Whether it is the Middle East peace process, the Indo-Pakistani dialogue over Kashmir, inter-Korean security issues[15] or Beijing-Taipei talks, the situation in early 2001 is neither stable nor encouraging, with the three major powers concerned (the

[15] For the moment Pyongyang's relations with Seoul are restricted to economic aid, the security dialogue being conducted with Washington. No real lessening of tension between North and South Korea will be possible until a dialogue begins between the two states on security issues.

United States, Russia and China) by no means pursuing the same objectives. A reversal of present positions to preserve higher, common interests (the preservation of world peace) would thus be necessary, albeit improbable.

- The maintenance of deterrence doctrines as long as nuclear weapons exist. Agreed, it is no longer necessary to weigh every decision against its impact on deterrence, which has lost much of its importance in people's minds and in reality, to the point of having practically vanished from public statements. Nevertheless, as long as nuclear weapons are part of the strategic landscape, it will be essential to preserve a culture of deterrence if a surreptitious shift to doctrines of use is to be avoided. The US quest for new, miniaturised warheads, for use against bunkers or underground installations, is one of the reasons for opposing the ratification of the CTBT. Disturbing views on this subject are again being aired among those preparing the Nuclear Posture Review.
- Limiting the scope of nuclear weapons to existential threats. Since deterrence no longer is, and should no longer be, an all-purpose response to different types of threat (which would give massive encouragement to nuclear proliferation) the new strategic context should restrict the role of such weapons to extreme cases of survival, in accordance with the advisory opinion of the International Court of Justice in July 1996.
- Support for multilateral arms control policies. Admittedly, these agreements make diverse contribution to regional and global stability. However, the corpus of agreements painstakingly put together since the end of the 1960s is an essential part of international law. The scepticism that surrounds them at the beginning of this century must lead, not to their abandonment, but to their strengthening or, in some cases, to their renegotiation or supplementation. Otherwise, inadequate verification might be traded for a total absence of controls, which would open the way for a drift towards the systematic settling of differences through the use of force.
- The coordinated fight against proliferation. One of the conditions for nuclear stability is the ability to prevent the proliferation of nuclear weapons and their means of delivery. In the absence of regimes sufficiently effective to contain the most determined proliferators, the very least the world is entitled to expect from the nuclear powers is that they do not proliferate themselves. This requirement is not being met today, with Russia's continued involvement in highly questionable cooperation with Iran in the nuclear (enrichment) and ballistic (aid to the *Shehab*

programme) fields, and China still suspected of continuing its longstanding cooperation with Pakistan. If the guarantors of international peace and stability contribute to the proliferation of WMD, there is no doubt that it is one of the major elements of instability in today's world. A good start, if one wishes to convince the United States that it should not act unilaterally, would be to reverse that trend.

- Lastly, it is essential to improve predictability, especially in areas where strong tensions exist. In Europe's past, differences in strategic approach have resulted in grave errors; but the odds of misinterpretation between countries with different cultures are incomparably greater. Exchanges of information, efforts aimed at mutual transparency, and cooperation whenever achievable are therefore essential elements of stability in a world where fear and distrust can be heightened through ignorance, ambiguity, incomprehension or murky policies and doctrines. For adversaries with little communication, a major risk during a crisis is to be pushed, through misjudgement, into positions where options for compromise become less and less available.

To conclude, the present situation is characterised by a dynamic pace in international relations that seems difficult to control, especially in the regions of greatest tension, the Middle East and East Asia. Awareness of these two phenomena, great dynamism and lack of control, is prompting the major powers, particularly the United States, to adopt strategies based on the notion of 'flexibility'. This concept is a plain admission of ignorance of the factors which will govern international security in the coming decades, as if the actors had given up hope of defining them through their actions. De facto, states, both large and small, are watching ongoing developments more or less as spectators. Nor are international institutions playing their role. The cooperation among the permanent members of the Security Council, particularly good at the beginning of the 1990s, is no longer effective in the field of non-proliferation. The growing disparity between the United States and Russia frees American initiatives from a potential restraint, and induces Moscow to engage in dubious compensatory activities. In Beijing, non-proliferation is too often seen as a concession towards Washington, not as a great power's responsibility. As to the Europeans, they have lost the sense of their global role to such a degree that they only take a back seat in international affairs, including, despite their claims to the contrary, in the fight against proliferation. In such a situation, the ability of the various

actors to prevent or manage new crises is questionable. The biggest risk is that rivalry between them might make regional crises even more serious .

I.3 The new triad: defence, space, precision-guided weapons

A number of technological developments are also contributing to the redefinition of nuclear weapons, particularly in the United States, which holds some of the keys to that definition: the development of missile defences using non-nuclear interceptors, new military uses of space and long-range missiles armed with precision-guided conventional warheads.

The deployment of missile defences

The deployment in the coming decades of tactical and strategic missile defences designed to protect territory or troops against limited strikes will have to be given consideration when redefining nuclear deterrence. Not, as is sometimes suggested, that it implies a drastic reappraisal. Indeed, gone are the days when President Reagan was dreaming of making nuclear weapons 'impotent and obsolete'. What is at issue is no longer the fantasy that the United States could be afforded total protection by setting up a system able to detect and destroy any enemy missile. Rather, it is the future combination of offensive and defensive means that will define new forms of deterrence in which nuclear weapons will play a smaller part. According to Donald Rumsfeld, the US Defense Secretary, the purpose of missile defences as well as of nuclear weapons is not to be used, and defences should combine with offensive means to achieve deterrence. The impact of defences on deterrence could be positive or negative, depending on circumstances.[16] They will weaken it if they give their possessors a feeling of security that many judge to be excessive and premature.[17] Moreover, by giving leaders the idea of 'deterrence through protection', they could make them less prudent, and strategic prudence is essential in nuclear matters.

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16 Thérèse Delpech, 'Missile Defences and Deterrence', in Burkard Schmitt and Julian Lindley-French (eds.), 'National missile defence and the future of nuclear policy', *Occasional Paper* 18 (Paris: Institute for Security Studies of WEU, September 2000).

17 See the now celebrated MIT (Union of Concerned Scientists) report on countermeasures published in 2000: Andrew M. Sessler et al., *A Technical Evaluation of the Operational Effectiveness of the Planned US National Missile Defense System.*

Defences can, on the other hand, reinforce deterrence if they look credible enough to discourage potential adversaries, or if they ensure the cohesion of coalitions during overseas interventions.

Following several decades of research which produced no meaningful deployment other than around Moscow, missile defences are now entering a new era for several different reasons:

- Technological developments. The successful development of non-nuclear interceptors removes one of the main objections raised in America to the *Safeguard* system deployed for some months in the 1970s. The greater difficulty of their task with respect to their nuclear predecessors is compensated by better public acceptance. Significant progress has also been made regarding their speed and agility. A key to their performance is constant progress in computers. Remarkable advances have also been made in radar and satellites, with the development of new generations that make possible the signal acquisition essential to the detection and tracking of missiles and warheads. Lastly, system integration, a 'must' for missile defences, now allows the real-time fusion of increasingly numerous and diverse data packages from a multiplicity of sensors. After vast sums of money have been spent on missile defences, results are beginning to show up, even if the tests are not yet conclusive, especially as regards strategic systems.
- The changing nature of the threat. Ballistic missile proliferation eliminates distance, one of the main protections against attack, and is therefore rightly regarded as a major destabilising factor. Ballistic missiles can be effective without even being used, i.e. their very existence is felt as a potential threat. There is nothing irrational there, for intentions can change while capabilities remain, as Western countries always maintained during the Cold War. What is worrying is not so much an attack as potential coercion and blackmail. Missiles are also a cause for concern because they are seen as the tip of a much larger iceberg, hiding clandestine WMD programmes. In addition to ballistic missiles, the proliferation of cruise missiles and unmanned aerial vehicles (often overlooked) is also part of the evolving threat. To counter proliferators threatening to use these weapons against troops in overseas operations, nuclear deterrence is not a reasonable option if effective tactical defences are available.

- Evolving mentalities. The main attraction of defences may well relate to a growing aversion, in all advanced societies, to conflicts and the casualties they generate. It looks as if Western public opinion anticipates a greater probability of WMD being used against their armed forces or territories in the coming decades. That anticipation, which may be justified in part, also indicates a 'security-oriented' mindset that will lead societies to ask for ever more protection. Missile defences are part of that logic. However, it should also be recognised that vulnerability to WMD, considerable as it was during the Cold War, is less accepted by public opinion nowadays. It will, therefore, be difficult to waive protection when the technology becomes effective.

The new US administration is determined to achieve results before its term ends, an objective that may be jeopardised following the defection of Senator James Jeffords from the Republicans in May 2001. The sensible way would be to carry on research and testing to confirm the technological maturity of the systems, speed up tactical programmes, which already have the benefit of much greater funding than strategic defences, and make no immediate decision on the more controversial projects. It would answer critics at home, be the preferred solution for the European and Asian allies, as well as the best way to forestall undesirable responses from Russia and China. The main threat from the latter, more so than an arms race which neither country can really afford, is a further deterioration of their sensitive material export policies to the most unstable regions of the world such as South Asia, the Middle East or even East Asia. This prudent policy will no doubt appear too timid to the new Administration, which is leaning in the direction of a multi-layer system for both tactical and strategic uses, with a ground component and mobile naval and air platforms. However, a programme of careful testing and prudent diplomacy may well be encouraged by Democrats and moderate Republicans joining forces in the Senate. The debate covers three points: withdrawal from the ABM Treaty (less likely with the new majority?); space interceptors (a true 'red line' for many); and what attitude to adopt vis-à-vis China (nuclear deterrence alone or combined with defences).

New developments in space

Beyond the BMD project, the new Administration is putting the spotlight on the militarisation of space. Developments in this area should also limit the role of nuclear weapons in the future. In January 2001, the Space Warfare Center, whose ambitions are backed by the new Defense Secretary, conducted the first widely reported war game, with 250 participants, at a location near Colorado Springs. The scenario was rising tension between the United States and China in 2017 following Chinese threats to Taiwan. As early as 1991, the Gulf War made the general public aware of the crucial role of space in communications, observation, intelligence and precision-guided missiles. The United States knows that its dependence on space, both in civilian and military spheres, can only increase. Therefore, the protection of satellites is on the Department of Defense priority list, just as the ability to destroy them is a priority of America's potential adversaries. According to the Rumsfeld report on space, the loss of satellites would dramatically affect the fighting posture of US forces, and a 'space Pearl Harbor' would be a major threat the United States must be prepared to counter. Space should thus become a national priority. In February 2001, Vice Admiral Thomas Wilson, Director of the Defense Intelligence Agency (DIA), stated that China and Russia were trying to acquire a wide spectrum of weapons capable of attacking American satellites. Passive protective capabilities and hardening of space systems are among the major recommendations of the Rumsfeld Commission. Today, space plays the same role in people's minds as air did at the beginning of the twentieth century. Every unit, ship and aircraft needs space to determine its position with an accuracy of a few tens of metres. It is also a deterrent factor, since it provides precise data on the activities and movements of potential aggressors. A new generation of miniaturised observation satellites, due to be put into orbit by the United States in 2005, should multiply by a factor of twenty the space images available for military operations, for surveillance of terrorist activities, and for the monitoring of WMD proliferation. Ideally, this should make it possible to intervene rapidly at any point on the globe. Space facilities are now a necessity for successful land military operations, effective communications and highly accurate strikes. In short, space is an essential condition of power. Even while the crucial question of space interceptors for NMD remains unresolved, American policy on space, which goes far beyond missile defences, is likely to be given greater priority. By the same token, militarisation of space is a subject of confrontation between the United

States, Russia and China. In view of its current lead in the field and of its space-related civilian activities, America has the most to lose if space becomes a potential battlefield. In particular, it would seem vital to ban the testing or deployment of anti-satellite weapons in order to protect missile defence systems which rely largely on space-based surveillance assets.

Long-range, precision-guided conventional weapons

Another factor to be considered is the possibility of giving precision-guided conventional weapons some of the missions that nuclear weapons currently possess.[18] Efforts to achieve accuracy in bombing originate in part from a desire to avoid using nuclear weapons that, even at their most precise, cause significant 'collateral damage'. If that can be avoided by using conventional warheads capable of hitting and destroying the targets, the need to resort to nuclear weapons could be reduced accordingly. The hard core of nuclear missions would then be restricted (at least for the United States) to hardened or underground targets, resistant to conventional explosives. In his contribution to the debate, Stephen Younger,[19] a senior member of the Los Alamos nuclear laboratory, suggests that, before the decision is made to replace the various nuclear platforms in 2020, there should be an accurate assessment of the possibilities offered by the new offensive conventional means, which might be capable, within the next twenty years, of a large number of missions now assigned to nuclear weapons. The replacement of *Minuteman* III and *Trident* 2 D5 missiles are part of the study, which could lead to a drastic reappraisal of 'the role of nuclear weapons in national defence' by substantially reducing the American arsenal, keeping only a 'nuclear core' for a very limited number of targets and scenarios. For this 'core', accuracy would make it possible to use increasingly lower yields.

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[18] Precision has also led to significant changes in nuclear deterrence, with the introduction of precision-guided, multiple warhead missiles in the 1970s. Counterforce deterrence emerged, and missiles no longer targeted cities (counter-value deterrence) but missiles. In terms of stability, understood as diminishing the incentive to initiate a first strike, the result was debatable, since pre-emption became more tempting for the Soviet Union.

[19] Stephen M. Younger, 'Nuclear Weapons in the Twenty-First Century' (Los Alamos National Laboratory, June 2000); for an even more radical reappraisal see George Keyworth, 'Nuclear Deterrence as a Legacy System, and what follows', Naval Post-Graduate School, Monterey, California, 26 June 2000.

This approach is too radical in its conclusions to prevail, and the author has until now never managed to convince American decision-makers despite persistent efforts. It does, however, put into perspective the emergence of strategic conventional weapons ('wholly non-nuclear strategic forces'), which will be worthy of attention in the coming decades. Such ideas could be examined in the Strategic Defense Review and, in a scaled-down version, would be sympathetically received by those who seek to devalue nuclear weapons. The fact that these are ideas already raised in the 1980s and 1990s (for example in articles by Paul Nitze) does not mean that they have no prospective merits. Addressing the US Naval Academy in Annapolis on 25 May 2001, President Bush has already shown his interest in 'modified Trident submarines carrying hundreds of next generation smart conventional cruise missiles'.

In a markedly different approach, the report on nuclear issues published by the National Institute for Public Policy (NIPP)[20] at the beginning of 2001, just as the new Administration was taking office in Washington, favours the role of nuclear weapons, stressing their flexibility, both quantitative (maintaining an ability to increase the number of weapons rapidly) and qualitative (the possible need for developing new warheads). The influence of that report on the 'Nuclear Posture Review' could be significant, given the presence, among the authors, of many high-ranking members of the new Administration, even though it seems out of line with presidential declarations on a reduction in the role of nuclear weapons. On this issue, as on many others (such as Iraq, China, Russia and the environment), the new Administration displays contradictory tendencies that must be resolved at some future time.

Finally, account must be taken of the 'revolution in military affairs', which is another way of saying that nuclear weapons are a thing of the past. A combination of long-distance strikes, accurate targeting, stealth technologies, countermeasures, etc., would eventually eradicate the very possibility of warfare by making possible the almost instantaneous destruction of all the adversary's sensitive targets, while protecting domestic assets. The objective would thus be to give this 'revolution' the role formerly assigned to nuclear weapons as instruments of deterrence. These ambitions have been

[20] Keith Payne, 'Rationale and Requirements for US Nuclear Forces' (National Institute for Public Policy, 2001).

revised downwards, especially in the aftermath of the Kosovo campaign, which demonstrated the many options an enemy has to conceal and decoy when faced with American conventional superiority. The difficulty of beating an adversary, even a considerably weaker one, without deploying forces on the ground was once again clearly apparent. Equally, US ambitions, even if currently downplayed, have by no means disappeared. Advanced information and communications systems will be increasingly necessary for intelligence, detection, command and control of interceptors, as well as for the deployment of forces in regional crises. American strategy with regard to regional powers will still rely on considerable conventional forces and limited defences rather than on nuclear forces, with the possible exception of miniaturised weapons designed for the destruction of bunkers or underground clandestine facilities. There is little chance that this conventional power will eradicate the desire of potential opponents to fight back and even less that it will rule out the acquisition of WMD as instruments of retaliation. Quite to the contrary, a 'revolution of violence' might emerge as a response to the 'revolution in military affairs'.

The Bush administration's commitment to missile defences, militarisation of space and precision-guided conventional weapons is obvious. However, the exercise of power also has a sobering effect. As yet, there is no indication that Washington will take decisive steps in all three directions, or that it will do so promptly, since the conventional requirements of the three services (Army, Navy, Air Force) already account for a large part of the defence budget, and international discussions already scheduled (with the Allies and Russia) might also lead to reconsideration of certain objectives. Rather than viewing these developments as inevitable, it would be wiser to try influencing the choices that will be made. Such a policy, however, requires that partners and allies have clear ideas about where their interests lie. As far as Europe is concerned, this would provide an opportunity to refine its threat assessment and its early warning and surveillance capabilities. Another area where European initiatives are needed is the development of theatre missile defences, which could prove essential to military operations in zones where WMD programmes are suspected. Unfortunately, the Europeans are not making the necessary financial effort and they will probably wait for another new crisis to break out before they take any decision.

I.4 Conclusion

Nuclear deterrence is no longer a prime element in inter-state relations, and the indifference towards defence issues, widespread in democracies, is at the root of general ignorance regarding WMD programmes. Only dramatic events, like the Gulf War, from time to time provide a warning, albeit temporary. However, inconspicuous as they may be, nuclear weapons continue to play a significant role. Three examples illustrate this. First, American nuclear forces, although never mentioned explicitly during the war against Iraq, were reportedly a significant factor in Saddam Hussein's decision not to use chemical or biological weapons against the coalition's troops or the Israeli people. Second, the fact that no intervention on humanitarian grounds in Chechnya was ever mentioned, although the population's situation is more tragic than those in Kosovo in 1999, was partly due to Russia's nuclear capability, which discouraged any such intervention. Third, the presumed existence of Israel's nuclear capability induces prudence even in its most hostile neighbours, even though Iraq's strikes on Tel Aviv during the Gulf War might raise a doubt on this point.

Despite this continuous role, nuclear weapons are no longer at the centre of strategic relations. One proof of this, however symbolic in nature, is the de-targeting of missiles by the five nuclear powers. Even though armed forces, as Sir Michael Howard points out, are not directed at specific enemies in peacetime, nuclear weapons do not generally fit into that traditional pattern. Until now, *tous azimuts* deterrence had never had many followers and was sometimes the butt of sarcastic comments, even in France, when it formed part of official doctrine. The idea of an 'overall' deterrent with no specific targets is typical of the transition period through which nuclear weapons are going worldwide.

No one wants the return of nuclear weapons to a central position. There are at least two reasons for this. It would be a sign of serious international tensions (such as a threat of attack on Taiwan), and it would take place in a world more complex, and therefore more dangerous, than at any time since 1945. A nuclear exchange in the twenty-first century would have little in common with the bombing of Hiroshima and Nagasaki, given the number of weapons, their type, the number of players and the alliance networks involved. Therefore, to avoid future nuclear crises, it is not sufficient to develop doctrines stressing the need for flexibility and adaptability. More

than anything, they demonstrate uncertainty and ignorance over the future. What is needed is an improvement in the ability to analyse ongoing change, as well as parallel efforts to render actors less unpredictable and conventional conflicts less likely. Otherwise, post-modern versions of surprise attack or escalation, the great scares of Cold War times, will return to haunt world leaders in new and unforeseen forms in the coming decades. This is not only a call for some serious prospective thinking, but the reinforcement of negotiation as the first line of defence.

Robert Oppenheimer's remark on the significance of the first explosion remains true because of the exceptional power of these weapons and the terror they will continue to inspire. The fact that the United States and its allies have altered the role of nuclear weapons in their military doctrines does not mean that the whole world is following suit. The new nuclear powers lack the experience of two World Wars and the Cold War, which bred a culture of caution and common perception in international affairs amongst the actors involved. Will they proceed as cautiously as twentieth century statesmen? This is by no means certain. The risk of use could rise as such weapons fall into the hands of leaders bent on changing the regional or broader international order. Efforts to deter them presuppose a strategy that, as with every good strategy, must be simple: an agreement amongst the major countries, nuclear and non-nuclear, to make it clear that they will tolerate no modification to the regional or international balance through the use or threat of use of weapons of mass destruction. This is the second line of defence. However, the major countries that would be needed to enforce such a policy include non-status quo powers. As Clausewitz pointed out, while strategy is a simple art, it is by no means easy.

Chapter Two

THE FUTURE OF ARMS CONTROL

Harald Müller

II.1 The role and importance of arms control, present and future

Arms control is certainly a baby of the Cold War. Waking up to the coming nuclear parity between the United States and the Soviet Union, which would eliminate US nuclear superiority as the basis of America's security as well as that of its allies, in the late 1950s and early 1960s defence intellectuals began developing arms control as the appropriate antidote. Security policy could not entirely be based on self-help in the future. The risk, in the nuclear age, that the arms race might get out of control and lead inadvertently to a war, appeared to be just too great. Arms control did not necessarily aim at reducing, or even eliminating, nuclear weapons but at stabilising the postures on both sides so as to avoid a rush to a first strike, or a 'use them or lose them' dilemma in a crisis.

While conceptually clear and distinct, arms control became quickly and inevitably blurred with two other concepts. The first, disarmament, was very much informed by the idea that weapons were an independent cause of conflict and war. The reduction and elimination of weapons was thus seen by the proponents of this view as a very important instrument for preventing deadly conflict. The second one was the evolution of humanitarian law, the century-long attempt to limit damage, fatalities, and human suffering in war, notably on the part of the civilian population. While institutionally separate from arms control (which was conducted largely bilaterally) and disarmament (which was conducted in the Geneva forum, whose name changed several times and which is now called the Conference on Disarmament), the humanitarian law rhetoric had a strong influence on the other two approaches, notably in the realm of nuclear weapons. The non-discriminatory character of nuclear arms, and the huge number of civilian casualties to be expected from nuclear use – demonstrated so vividly and terribly in Hiroshima and Nagasaki – made the humanitarian argument the central issue for anti-nuclear movements and proponents of disarmament. The 1996 Advisory Opinion of the International Court of Justice relied heavily on

arguments drawn from humanitarian law, and proved very clearly the extent to which thinking on arms control, disarmament and humanitarian law had converged.

The end of the Cold War put into question the further validity of the arms control approach. Conceptualised for a bilateral duel in the form of a nuclear arms race, it certainly lost its foundation with the break-up of the Soviet Union and the termination of the conflict that had divided Europe. However, I will argue that, first, the same cannot be said for the arms control/disarmament/humanitarian law amalgam, which is a complex strategy that aims at establishing an alternative security order and is a project that has not become at all obsolete with the advent of new strategic relationships, but for which the prospects have rather improved. Secondly, even within the narrower concept of arms control, elements do still exist that are of continued utility.

To take the second point first, the central notion of arms control, its controlling objective, was, as mentioned above, stability. Stability in the strategic relationship between two nuclear-armed enemies or rivals is an essential condition for international security, relating to the security not only of the nuclear competitors, but at least to their wider neighbourhood and even, depending on the size of the arsenals, the type of weapons and the scope of their strategic competition, the whole world. Arms control is intended to give each side the confidence that no precipitate action will be needed, whatever the circumstances.

This objective, I would argue, remains important even following the end of US-Soviet strategic rivalry. It will be relevant as long as the relationship between nuclear-armed states has not reached the level of 'security-community' – that is, a degree of cooperation, friendship, compatibility of interest, intense dialogue, normative integration, institutionalised forms of conflict management and solution – that excludes the possibility of a serious clash of interest, a conflict that could engender the exchange of force, from either side's thinking. In the case of quite a few nuclear dyads we have not yet reached that point: in the US/Russia, Russia/China, US/China, China/India and India/Pakistan relationships there is a certain degree of conflict of vital interest for at least one if not both sides of the dyad. It is all very well for pro-NMD authors from the United States to declare that a US withdrawal from the ABM Treaty could not have negative consequences

since the relations among the major powers today rest on friendship, not enmity. That, however, is not exactly the view of the actors themselves. US nuclear targeting doctrine still considers more than 2,000 military targets in Russia to be relevant. China is regarded by the United States as a potential enemy, possibly its single main rival in the century to come. Perceptions in Moscow and Beijing mirror this image, only much more so, as these countries are so much weaker than the United States, and considerations of deterrence are thus much more salient. As long as these perceptions prevail and are even reinforced by mutual talk and action, arms control will retain its role as strategic stabiliser and, consequently, the ABM Treaty will play a useful role as well.

Arms control also has a role to play in regional stability: at this level, such agreements can help ensure reliable balances of forces which give reassurances to regional powers that their survival is not at stake, and that they must not fear a surprise aggression by any neighbour. With a growing number of interrelated agreements regional security may improve to a point where confidence among regional powers replaces distrust and confrontation as the dominant mode in interstate relations.

Globally, non-proliferation or prohibition agreements, particularly those relating to weapons of mass destruction (WMD), are a precondition for banning existential dangers for global stability, ecological safety and, *in extremis*, even the survival of the human race. Arms control can create sufficient security and stability to motivate countries to commit themselves to cooperation in other sectors where it is mutually profitable and indeed indispensable for solving problems for society and the economy in the age of globalisation.

Such agreements also impact heavily on regional balances and help, if successful, to prevent the greatest dangers of escalation of existing regional conflicts. Successful arms control agreements build shared security interests among erstwhile rivals and enemies. Hence, they even help to de-escalate the general level of regional conflict.

This brings us to the second major significance of the triad of arms control, disarmament and humanitarian law. Taken together, these present an important and powerful alternative to a security policy based entirely on self-help and its extension, defensive alliances. While defence capabilities

present, in the final instance, the essential backbone of any security system, arms control, disarmament and humanitarian law form a first line of security that consists of internationally agreed rules. The security dilemma which leads to costly and risky arms races and, in extreme circumstances, even to war, can be considerably lessened if there are generally accepted rules for upper limits of troops, military equipment, for the shape of military doctrines and the form of exercises, which give states the confidence that their neighbours do not harbour aggressive intentions. These rules delineate clear distinctions between acceptable and unacceptable behaviour, and thus help to distinguish between the rule-abiding membership of such a security regime and the (hopefully very few) rule-breakers against which the capabilities of the lawful majority can then be directed.

A security system like this considerably reduces the risk of hostilities and the level of necessary defence expenditure. It requires, in the first place, that the strongest countries submit themselves to the rules and do not request exemption: the rule of law can only apply when the king himself is not above the law, as European history so vividly demonstrates. Unfortunately, a willingness on the part of some powerful states, and in particular the most powerful country, to abide by the rules is not very evident.

II.2 Factors favouring and constraining nuclear disarmament

The strongest always serves as model. In international rule making, leadership is of threefold importance. The leader has usually ways and means to cajole others into agreement, and later on into compliance. The leader's own law-abiding behaviour shows clearly that success is compatible with the new rules. And the leader can offer above-average concessions to convince reluctant parties to come in, since it is acting from a position of strength. The weaker a party is, the less room there is for compromise.

Presently and in the foreseeable future, the United States will remain by far the strongest state in the world, and the only remaining superpower. However, US policies do not follow the ideal type of behaviour just described. The US military are very reluctant to deviate from past targeting policy, this policy still requiring huge numbers of warheads to cover all military targets in Russia deemed valuable. The military argue that they cannot change targeting without a new policy guideline adopted by the

President. During the Nuclear Posture Review of 1994, the civilian gurus running nuclear policy in the Pentagon successfully blocked all attempts by the 'new brooms' to change policy guidelines. During the 2000 election campaign, George W. Bush, Jr. and some of his foreign policy advisers indicated that deep cuts might be possible, an intention reiterated at the President's speech to the NDU on 1 May 2001. It remains to be seen whether this promise will still hold in his presidency.

Generally, we observe a marked departure of US policies from the multilateralist attitude and strategy that characterised American foreign policy for long. Of course, a grain of unilateralism was always involved in the behaviour of the Western superpower, but since the end of the Cold War this element has become dominant. This is partly due to the strong aversion of a Republican-dominated Congress to any constraints on US freedom of action and any influence by international organisations on US policies. International law is seen as useful if it ties the hands of other actors, and is anathema if it means curbs on US action. On this basis, arms control becomes untenable. Since these short-sighted priorities will harm the US national interest – the one and only yardstick these forces accept against which to assess political processes – in the long run, this attitude is incomprehensible. While Congress Republicans have clearly been the driving force behind this trend, the previous Administration only rarely put up a fight. The failure to lend strong support from the highest level to the ratification of the CTBT is a dramatic illustration. Unilateralist factions could be identified even within the ranks of the Clinton administration, not least in the Pentagon. Without a lead from the United States, arms control could be taken forward only in less relevant areas such as the Ottawa Convention to ban anti-personnel landmines. In nuclear arms control, where US leadership is of course indispensable, no great progress has been possible.

The strong priority set on developing a national missile defence system is at present probably the biggest obstacle to further progress in, and the main risk to, existing arms control. The project is popular in the United States, in particular among the political élite. It is hard to fault the argument that it is good to defend one's homeland against horrendous threats from irresponsible regimes. In addition, NMD plays to the century-old US tradition of viewing the country as a beacon of goodness, the 'city on the hill' that must be spared entanglement in the troubles of the outside world or – if it bothers to involve itself in these troubles – will do so as a saviour that ensures the

triumph of good over evil, and from a position of impregnability and supremacy. The appeal of this thinking should not be underrated: it pervades not only the views of the world held by the powerful religious right and patriotic Republicans, but is also part and parcel of US political culture. Countering that appeal, the complex and intellectual arms-control reasoning in favour of maintaining the ABM Treaty as it stands and, consequently, renouncing national missile defences, is an uphill battle. The only thing that could stop NMD is technical failure. The US public believes in technological feasibility, but is efficiency- and cost-conscious. Further failure to meet technical objectives during tests would dampen enthusiasm for NMD and could even kill it. If, however, tests are successful, or smart public relations efforts turn failures into apparent successes, an NMD in one form or another will be deployed, with negative consequences for arms control and disarmament, as the following analysis will argue.

The impact that present Russian policy will have on arms control and disarmament is unclear. On the one hand, Russia's military-economic interests are pushing the government in the direction of far deeper cuts in strategic nuclear forces than the United States has so far been prepared to admit. On the other hand, the profound weakness of Russian conventional forces has enhanced the importance of nuclear weapons in Russia's eyes and, in particular, put increased emphasis on the role of tactical nuclear weapons as an equaliser in conventional regional conflicts, possibly also in response to chemical or biological weapons attacks. NATO's unchallenged superiority in conventional weapons, combined with enlargement and operations in former Yugoslavia against Moscow's express political will, has added to a sense of insecurity. As a consequence, it has been difficult to put tactical nuclear weapons on the arms control agenda. In addition, the heightened feeling of inferiority and the old traditions of military secrecy have militated against Russia's admitting optimal transparency in the field of nuclear weapons. To be fair, the transparency granted goes beyond anything imaginable during the days of the Soviet Union. Still, it falls short of Western demands and thereby serves to maintain a degree of distrust that is not conducive to further confidence-building and arms reductions. Russia's feeling of insecurity is also aggravated by US NMD plans. Russia has not shown any sign of willingness to give in to the US request that the ABM Treaty be adapted to US deployment plans, sticking instead to the present treaty language. And it has made further progress in nuclear arms control, even the maintenance of existing treaties such as START I and II

and the INF Treaty, contingent upon the continued validity of the ABM Treaty as it stands. Remarkably, the Duma has worded its decision on ratification of START II in such a way as to invalidate ratification if the ABM Treaty falls.

A lack of transparency is orders of magnitude greater in the case of China, whose rhetoric proclaims its commitment to nuclear disarmament, but which refrains from joining step-by-step measures apart from a no-first-use commitment and an absolute negative security guarantee to non-nuclear weapons states. Arguing that its own weakness and security needs make greater transparency impossible, Beijing is secretive concerning the direction that its present modernisation and build-up of its nuclear forces – it is currently the only nuclear weapons state with a growing nuclear arsenal – might be taking. This provides a pretext for those in the US and Russian nuclear weapons complexes to plead for a 'hedge' policy with China in mind, and contributes to a feeling of insecurity around the whole Asian rim that is conducive neither to nuclear disarmament nor to non-proliferation. If anything, China's attitude towards US NMD plans is even more hostile than that of Russia. China sees not only its strategic nuclear deterrent threatened by the deployment of territorial missile defences, as the United States may progress from initially 'thin' to 'thicker', that is, much more capable, systems. China, in some contrast to Russia, sees its national interests already being jeopardised by tactical missile defences if applied to its own region, notably to Japan and Taiwan. US plans to deploy such systems in East Asia, ostensibly to counter the North Korean missile threat to its allies and its own forces, therefore run counter to Chinese wishes. China is also concerned that missile defences deployed in Taiwan, or even mobile naval defences brought forward to the Taiwan Strait, might embolden political forces in what Beijing regards as an irredentist province to enhance their efforts to attain independence. China is adamant that no negotiations in the CD in Geneva should go forward on any issue as long as an arms race in space – in Beijing's view a synonym for missile defences – is also under way.

The two European nuclear weapons states, France and the United Kingdom, are presently less of a hindrance to further progress in nuclear arms control and disarmament. Naturally, each is determined to stick to its nuclear weapons status, and this, in itself, is not overly helpful for the case of disarmament. In addition, a certain French reluctance to accept transparency as a universal principle of security policy that should be applied, rigorously,

to the nuclear sector has helped to prevent stronger transparency measures. But at least France has now accepted the principle of transparency in the European Common Position for the 2000 NPT Review Conference, and in the Final Declaration of that conference. Both France and Britain have impressively reduced their nuclear arsenals and their inherent operational flexibility, and have taken measures to scale down their nuclear weapon production complexes as well. Both have also implemented the principle of making disarmament steps irreversible, France in its decision to close its testing sites in Polynesia, Britain by subjecting former military fissile material production facilities and surplus material to EURATOM safe-guards, waiving the right to reverse this step. London has also achieved an exemplary degree of transparency.

Decisions by the two South Asian rivals, India and Pakistan, have not made the world any easier for nuclear arms control and disarmament. Both countries appear to be poised to engage in a nuclear arms race, without the reassuring stability that reigned for most of the time during the East-West nuclear arms race after (but not before) the Cuban missile crisis.

India is addressing three targets at the same time: to gain acceptance as a global power, to acquire a deterrent vis-à-vis China and to stay ahead of smaller, but troublesome, Pakistan. That the Indian government that decided to go nuclear openly was the most nationalist, and partially even Hindu fundamentalist, that ever governed the subcontinental democracy is by no means an accident. Ambitions of greatness and regional dominance, rather than hard-core security interests, tipped the balance in the direction of testing as opposed to maintaining an ambiguous status. India has declared its willingness to develop – as a minimum (*sic*) deterrent – a triad of submarines, land-based missiles and bombers, emulating the superpowers at a time when two nuclear weapons states, Britain and France, have trimmed their nuclear forces to one and two components, respectively. India is clearly driving a nuclear arms race that, depending on the scope of the nuclear posture adopted by New Delhi, may give new impulse to Chinese modernisation and, as a consequence, Russian and US plans as well.

Pakistan is at the receiving end of this race (though not necessarily in subcontinental conflict policy, which it is pushing by its material, political, and occasionally even direct military support for dissidents and external Islamic fighters). While Pakistan has little chance of matching any Indian

posture on its own because of a lack of resources, given the general assumption that nuclear weapons are an 'equaliser' a nuclear stalemate may be of comfort to Pakistani military planners rather than worry them. Unfortunately, this nuclear dyad will not necessarily emulate the relative stability of the East-West one. What was then feared by some strategists, but never realised in practice, the assumption that limited war might be possible at little risk because nuclear deterrence once a conflict has broken out would prevent escalation to the existential level, may well encourage politicians and military leaders to try minor provocations and incursions. The 1999 Kashmir war could turn out to be the first of many such dangerous (because prone to escalation) skirmishes, each of which would include the risk of crossing the nuclear threshold.

Israel, among all *de jure* and de facto nuclear weapons states, is the one likely to be least inclined to move in any way towards arms control for the time being, and the one whose posture is having the worse effect – in terms of proliferation – on its environment. Israel has at least signed, though not yet ratified, the CTBT. Washington cajoled it with considerable effort into agreement on starting CD negotiations on a cut-off and a readiness to negotiate, though that was never put to the test. Israel, to the dismay of its Arab neighbours, Egypt in the first instance, proved stubborn in its resistance to any symbolic or practical gesture in the arms control talks in the aftermath of the Madrid process. Neither exploratory talks about a nuclear weapon-free zone nor technical discussion on what verification measures in such a zone might entail, nor significant gestures such as the closing down of the (now near obsolete) Dimona reactor were acceptable to Israel. In return, the Arab, notably Egyptian, attitude is increasingly hardening on measures on nuclear disarmament or non-proliferation that do not include Israel or contain at least criticism of Israel's nuclear capability, a demand which, in turn, is opposed by the United States.

On the negative side, biological and chemical weapons proliferation must be counted as an obstacle to nuclear arms control and disarmament. Some nuclear weapons states explicitly or implicitly wish to preserve the nuclear option as a deterrent and a possible means of retaliation against attack with such weapons. At least this argument has been put forward to justify a reluctance to proceed rapidly with disarmament measures, pronounce a no-first-use doctrine or give unconditional negative security assurances to non-nuclear weapons states.

The Western Alliance has changed its nuclear posture and doctrine considerably. Nevertheless, it refuses to renounce the option of first use of nuclear weapons. European non-nuclear weapons states are arguing that asking the Americans to proceed to no-first-use and, consequently, withdrawal of the few tactical nuclear weapons still deployed in Europe, might be interpreted in Washington as a signal that the Europeans can do without the Alliance, and might thus precipitate the decay of NATO. Americans are reluctant to propose that step to Europeans lest the non-nuclear allies lose faith in the American guarantee and consider acquiring a nuclear weapons capacity of their own, with devastating consequences for the nuclear non-proliferation regime. With these contradictory expectations, NATO is quite unwilling at present to move beyond what was stated in its new Strategic Concept. It is thus impossible to meet the (more or less symbolic) Chinese call for an agreement on, or at least commitment to, no-first-use and thus give Beijing at least one success in the arms control arena.

On the positive side is the genuine interest of the nuclear weapons states in avoiding nuclear war and in diminishing threats from nuclear proliferation and other weapons of mass destruction. To the extent that their own arms control and disarmament activities help to foster this interest, they will be willing to do so. The crunch may come if all of them come close enough to minimum deterrent posture levels to face the stark decision of either reducing to zero or envisaging a world in which an increasing number of countries have weapons of mass destruction. We are, however, far from this point, and it is not clear whether this Manichean alternative will ever be on the agenda in the foreseeable future, but we cannot exclude it.

Another factor helping arms control is the pressure exerted by non-nuclear weapons states to take more determined steps at nuclear disarmament. Presently, we can distinguish between several groups of them.

First, there are those who are much more interested in the nuclear umbrella than in anything else and caution their nuclear-armed allies against bolder steps towards disarmament rather than the other way around. Turkey, Poland and South Korea, because of their specific geopolitical location, are cases in point.

Next are those allies that would not want to risk their relationship with their nuclear armed friends for the sake of disarmament, but would rather like to

see them engage in more intense arms control and reduction measures, partly because they are concerned about the fate of the non-proliferation regime if the present situation prevails, partly because they like every measure that helps reducing the discrimination inherent in the existence of two kinds of states, and partly because they genuinely believe in nuclear disarmament. Australia, Canada, Germany, Japan and the Netherlands are examples.

Thirdly, there are the moderate non-aligned countries that want real progress in nuclear disarmament, but realise that pushing the nuclear weapons states too hard makes no strategic sense because nuclear disarmament can only be achieved with, not against, the possessors of nuclear weapons. This position is epitomised by the New Agenda Coalition, a group of seven states striving to give new impetus to nuclear disarmament.

Fourth, there are the traditional non-aligned countries, with their sweeping demands for fixed timetables and the immediate negotiation of a nuclear weapons convention which – by analogy to the Chemical and Biological Weapons conventions – should contain a general ban on all nuclear arms and related activities. They have lost much of their influence to the New Agenda Coalition, however.

It is the New Agenda Coalition whose fresh approach has led to enhanced pressure on the nuclear weapons states. Their requests cannot lightly be dismissed as unrealistic and utopian, as they are trying very hard to frame their proposals in an incremental and doable way. This approach helps to garner measured or strong support from the second group. The fourth group, while sticking in principle to its farther-reaching, more radical ideas about disarmament, is also rallying – though with some grumblings – behind the NAC agenda in order to achieve at least something. For the first time, therefore, the vast majority of non-nuclear weapons states are agreed on a set of political demands to put before the nuclear weapons states. This constellation carried, for example, the 2000 NPT Conference, where at least some of the nuclear weapons states conceded rather more than they had initially intended.

This slightly improved international setting has to be set against the present complete lack of popular interest in the subject. The effectiveness of popular commitment could be felt during the early 1980s and, more recently, during

the final series of French nuclear tests in the South Pacific. Since then, it has evaporated even though nuclear arms control and disarmament have entered a period of stagnation, if not crisis.

II.3 Prospects for specific steps in arms control

This pattern of factors that facilitate or impede further progress in nuclear arms control and disarmament frames the prospects for the various treaties, conventions and agreements on the arms control agenda. We must expect that the relationship between the US President and Congress will be very tense, and that does not bode well for agreements that the President wishes to negotiate. President Bush will possibly find it somehow easier than Mr Gore would have to prevail with arms control agreements in the Senate, since more Democratic than Republican Senators may be ready to vote for a treaty out of conviction rather than for the sake of partisan politics. The downside, however, is that so far Mr Bush has not shown any strong inclination to support arms control as an integral part of national security policy. He has, with pathetically unconvincing reasoning, publicly opposed the CTBT. His advisers have not shown much sympathy for a cut-off of the production of weapons-grade fissile material. He regards the ABM Treaty as obsolete and would rather subscribe to unilateral reductions in strategic nuclear arms than to negotiated and codified limits. On the other hand, his readiness to envisage such deeper cuts is a plus compared to the – incomprehensible – conservatism of the Clinton nuclear targeting legacy (see above). Altogether, the new President does not look overly attractive from a disarmament and non-proliferation perspective; but of course attitudes often change when incumbents realise all the implications of their office.

We should not expect Russia and China to give in easily to US wishes on changing the ABM Treaty and establishing a national missile defence, however thin it may be. Russia will most likely wish to retain the option of a MIRV-ed mobile, land-based missile, thus undoing one of the major achievements of START II. China will eventually follow suit, MIRV-ing its own land-based strategic component as well. India, and, as a corollary, Pakistan, will likely adapt its own definition of 'minimum deterrent' upwards if the established nuclear weapons states in their environment enhance their own offensive capabilities. At some point, Russian and Chinese efforts at adapting their own offensive options to – not real, but

anticipated – US defence capabilities will help nuclear pundits in the United States to overcome present barriers and make a renewed effort at enhancing the US nuclear arsenal.

China has already made it clear that it is not prepared to negotiate on a cut-off as long as there is not a compensatory, parallel negotiation track to prevent an 'arms race in outer space'. It appears that Beijing takes quite seriously the more advanced, or exotic, aspects of the NMD programmes as well as other research and development programmes being pursued by the US Space Command. The latter could bear fruit a decade from now and envisage space as deployment ground for offensive, conventional, precision weaponry that could attack a variety of targets in space, in airspace and even on the ground. China is also hedging its bets on enhancing fissile material production if a successful, large-scale NMD deployment were to compel Beijing's military planners to enhance the planned size of its nuclear arsenal at the end of the present modernisation process. China's present veto position makes it easy for other non-enthusiasts of a cut-off, such as India, Pakistan, Egypt or even Israel, to stay calm.

It is hard to be a non-proliferation/disarmament optimist at present. The main reason for this is the glaring lack of US leadership. Against its own better judgement, the United States has been laying the foundation for a renewed nuclear arms race at the end of which its own national security will be diminished – no matter how much it invests in anti-missile defence. Without a clear US example, and outstanding leadership, it is hard to see how the nuclear arms control and disarmament train will move forward. The US, of course, is not the only culprit. Russian resentment, Chinese opacity, Indian ambition, Iraqi maliciousness, all these factors work in the wrong direction. But the sad truth is that the most decisive roadblock in the way of further progress is the most powerful state on earth: the United States.

It will take much willingness to compromise on both sides to overcome the increasingly acerbic feeling of stalemate. An agreement between the United States and Russia does not appear completely out of the question, but it would require such a shift in Washington's position that the chances appear slim. The United States would have to agree to much deeper cuts than the military leadership was ready to accept in the Clinton era, and a much lower level of missile defence than President Bush has announced he deems necessary. In addition, Russia would possibly strongly prefer a forward

deployed, boost-phase defence that is unequivocally targeted against the 'states of concern', North Korea and Iran in particular. This is what President Putin has proposed and where he has offered cooperation on, even joint management of, a missile defence system. If the United States insisted on a larger, home-based configuration, some other concession would be needed to allay Russian concerns: a moratorium on the enlargement of NATO towards the East and/or a binding commitment – rather than just a political statement – that nuclear weapons would not be stationed on the territory of member states that entered the Western alliance after 1990. Even better, an agreement to withdraw all US tactical nuclear weapons from Europe in the context of an overall regulation for non-strategic nuclear weapons, as envisaged by the 2000 NPT Review Conference, might help mitigate Russian feelings of insecurity without in any way compromising Western security.

With China, the issue is similarly complex. The following 'package' illustrates this complexity and demonstrates the considerable concession either side would have to make:

- a US commitment to deep cuts in offensive strategic forces;
- a Chinese indication of what the end point of the present nuclear modernisation might be;
- a US undertaking to limit itself to a 'thin' rather than an extensive missile defence;
- a US willingness to engage discussions on preventing an arms race in outer space in the context of the CD;
- a US willingness to agree to a mutual, bilateral, no-first use policy with China, following the model of the Russian-Chinese understanding;
- a Chinese readiness to withdraw most of the missile batteries at the Taiwan Strait coastline beyond the range at which they could strike Taiwan;
- a US commitment to withdraw its readiness to defend and supply Taiwan if and when Taiwan declares independence, and to renounce the build-up of a tactical missile defence on the island.

While the package does not sound unreasonable to European ears, it would meet solid resistance within the US political community, notably on the Republican side. It is thus doubtful whether a compromise that could save

arms control from the present stalemate and a quite possible breakdown later on can be shaped in reality.

II.4 Non-proliferation and nuclear disarmament

A deteriorating situation in nuclear arms control and disarmament has a bearing upon the stability and coherence of the nuclear non-proliferation regime. This view assumes that there is a continuing relationship between the two subjects. Not everybody, however, holds this view. There have been many efforts to deny that a relationship exists at all. Countries, so the reasoning goes, decide to embark on nuclear weapon programmes because of regional or even local security concerns. What the established nuclear powers do, whether they build up their nuclear arsenals or reduce them, does not affect this reasoning at all. Another argument goes further, maintaining that, as the big nuclear weapons states disarm, they encourage would-be nuclear powers because the differential between the top nuclear weapons states and the newcomer diminishes, and an emerging nuclear arsenal thus carries greater leverage and currency than if measured against the tens of thousands of warheads in the arsenals of the United States and the Soviet Union at the height of the East-West conflict.

On the surface, these arguments sound quite convincing. Judged against historical experience, however, they do not stand. Recent research conducted by my associates and me has shown that more activities geared towards the acquisition of nuclear weapons have started in periods of high superpower tension and growing armament, while most renunciation of such activities took place in the period between 1985 and 1995 when relations between the United States and the Soviet Union – and its successor Russia – were as good as ever before or since.

Of course, it is true that countries usually have very special security concerns when they decide to acquire nuclear weapons. But the fact that it is nuclear weapons they wish to possess does not come out of the blue. Medium and small powers as well as would-be great powers watch what the really powerful countries are doing, and they try to emulate their pattern of behaviour. As long as the United States, in particular, sticks to nuclear weapons, and as long as the other permanent members of the UN Security Council hold them, it would be surprising if ambitious powers did not

believe that nuclear weapons were of considerable use. If, on the other hand, the US government followed the advice of experts like Paul Nitze or Generals Butler and Horner, among others, on the questionable military usefulness of nuclear arms, and conduct its own defence policies in accord with that assessment, the incentive to follow the example of the present nuclear weapons states would diminish considerably. In contrast, as long as the world's most powerful military conglomerate ever – NATO – sticks to an option of first use – against what threat, one is tempted to ask – and declares nuclear weapons the ultimate guarantor against all sorts of threats, risks and wars, it is hardly surprising that others wish to retain this option as well.

This is the level of the logic of emulation, which is much more powerful than many think. On a more legal-political plane, the relationship between nuclear proliferation and nuclear disarmament goes in the same direction. The NPT has defined this relationship, in its Article VI, in a clear but weakly worded manner. Since, the 1995 NPT Review and Extension Conference, the 1996 Advisory Opinion given by the International Court of Justice, and the 2000 NPT Review Conference have worked to clarify and define the meaning of Art. VI of the NPT. It contains an unequivocal legal commitment by the nuclear weapons states to negotiate effective nuclear disarmament agreements, and, eventually, to eliminate all nuclear weapons in their possession.

It should be emphasised that this commitment is the counterpart of the non-nuclear weapons states' undertaking to renounce the acquisition and possession of nuclear weapons. While it is true that this renunciation might be in the non-nuclear weapons states' interests even if present nuclear weapons states maintain with their status for some time, the history of negotiation of the NPT and the thirty years of debates within the NPT community have since then made it clear beyond any misunderstanding that the readiness by the vast majority of non-nuclear weapons states to renounce the most powerful weapon of the day was conditional on the commitment by the nuclear weapons states in Art. VI, and that non-nuclear weapons states may have a legal claim to withdraw from that undertaking if the NWS were in continuing and evident breach of their Art. VI commitment. If, for example, the United States, in the absence of any pressing security requirement, were not to agree to the Russian suggestion to go below the 2,500-warhead limit envisaged for START III, just because the civilian and

military security leadership deemed it fashionable to stick to the time-honoured Cold War targeting doctrine, non-nuclear weapons states might be justified in complying less with their Treaty commitments. At the very least, they might not see any good reason to go forward to ever farther-reaching verification measures on their own territory such as those required under the Additional Protocol to the NPT. The slow rate of ratification of this protocol is a warning sign that should not be ignored. We are not yet at a point where NNWS might withdraw from the Treaty out of frustration. It cannot be excluded, however, that this point may be approached in the future. The discrimination implied in the NPT is not something that can stand forever. It was accepted as a lesser evil for the interim – lesser than a world increasingly populated by nuclear-armed states. If, however, nuclear weapons states view the NPT as a licence to perpetuate their status, the basis of the bargain is undermined. That danger should not be underrated.

In addition to serving as a valid excuse for NNWS not to agree to new undertakings, or to cut down established ones as long as no progress in nuclear disarmament is made, the rift between NWS and NNWS has immediate effects on the cohesion of the non-proliferation regime. The regime has been challenged by only a very few states, which, under the cover of faithful treaty membership, recklessly pursue clandestine activities for producing nuclear weapons. The treaty community has a chance to confront these rule-breakers as a consolidated, closed and powerful unit. That opportunity will only be there, however, if the community is united and not divided. The persistent resentment of the 'have-nots' against the 'haves', however, creates niches where miscreants can hide in the wrong-headed but real solidarity of their non-nuclear peers. Compliance policy, then, is left to the unilateral action of the most powerful which, if anything, enhances misgivings among non-nuclear weapons states treaty members and the distance they perceive between themselves and the nuclear weapons states. The decaying solidarity within the NPT community is one of the biggest threats to the persistence of the regime; the 2000 consensus declaration is, in some ways, misleading: the compromise was won because the nuclear weapons states promised more than they could possibly be prepared to implement. If they fall short of these promises, however, the non-nuclear weapons states' disappointment, if not outrage, will fall on them with a vengeance.

The relationship between nuclear disarmament and non-proliferation can thus be formulated as a dual difficulty: without disarmament, non-proliferation will erode, and without non-proliferation, disarmament will not go forward. The present stalemate in the global and bilateral disarmament process is thus doubly troubling. It may well encourage or motivate some states that are on the point of embarking or continuing nuclear weapons programmes to go forward. This in turn will give new ammunition to those in nuclear weapons states who are opposed to further reductions, want to develop – and possibly to test – new nuclear weapons, and see the whole process of arms control and disarmament as an annoying, illegitimate and unnecessary constraint on national freedom of action.

II.5 European interests in non-proliferation and nuclear arms control

The countries of the European Union are concerned that the proliferation of nuclear weapons and their means of delivery may develop into a real threat to European territory. We have not yet reached that point, but containing any further development in that direction remains a pivotal security interest of the Union. The European countries thus have a common interest in maintaining and strengthening the nuclear non-proliferation regime.

The risk that nuclear material, equipment, or knowledge could travel from the area of the former Soviet Union to undesirable destinations requires particular attention, and indeed engagement. Individually and together, European countries have undertaken efforts to contain this risk; some of them do so presently with enhanced intensity in the activities of the G-8. It is also noteworthy that the EU's common position for the 2000 NPT Review Conference included a demand for the control of tactical nuclear weapons. The large number still possessed by the Russian Federation, the emphasis of such weapons in Russia's new security doctrine, and the lack of any binding rules covering them is reason for concern. Europe has a particular stake in tactical nuclear arms control.

In a broader perspective, the Union's existence is based upon multilateral treaties. The Union would thus thrive best in a security environment in which multilateralism and the rule of law dominated. That is not to deny the need for robust military capabilities: systems based on the rule of law always need, as a last resort, the means of enforcement. However, in order

to make enforcement the rare exception and compliance the norm, the armaments and defence policies of nation-states should be governed as far as possible by commonly agreed rules. The EU thus has an interest in successful arms control multilateralism that, at least for the moment, is not shared by its ally, the United States. What might seem on the surface to be certain disagreements on detail is only the symptom of more fundamental, almost philosophical differences on how international order should be shaped and enforced.

This general interest deriving from the nature of the Union gives Europe a particular stake in the main objective of the NPT, namely that the number of nuclear weapons states should not be further increased. Nuclear anarchy would certainly eliminate all prospects for an international security policy based on rules. By the same token, Europeans have strongly professed their preference for the integrity of the present assortment of arms control agreements of which the ABM Treaty is a most important part. It has been argued above that the arms control fabric could well unravel if the ABM Treaty were to be given up unilaterally by the United States. In addition to stability of the present system, the Europeans would like to see further reductions by the big two nuclear weapons states and an enhanced readiness by China to take some tangible, in contrast to merely rhetorical, steps to approach the game of arms control, notably in the area of transparency.

These common European interests cover considerable ground and constitute a solid basis for a common policy. This was clearly expressed in the Common Position for the NPT Review that has already been mentioned several times. The Common Position was quite noteworthy in that it did not contain just generalities and did not focus simply on the 'easy' issues of universality of the NPT, or safeguards, but addressed the most sensitive issues of arms control and disarmament directly, something that had never before been possible. With its emphasis on transparency, irreversibility, accountability and tactical nuclear weapons, the EU was capable, for the first time, of substantially influencing the Conference and, in particular, its final declaration.

That this achievement is described as noteworthy points to continuing tensions of interest that, necessarily, persist within the Union. While Britain and France, the two intra-Union nuclear weapons states, share common interests as analysed above, they have their national interests that are at

times contradictory to those of the more disarmament-minded members of the Union, such as Ireland and Sweden, who participate in the New Agenda Coalition. As long as the onus of disarmament is on the two big nuclear weapons states, this conflict of interest can be contained. It might, however, be much more difficult to overcome once deep cuts have brought Russian and American numbers closer to those of the other three. Differences may also persist over the degree of transparency and accountability desired by the non-nuclear weapons states members as opposed to what Britain and, in particular, France are prepared to deliver for the time being.

These intra-union contradictions notwithstanding, for the time being the common interest in keeping the totality of arms control, disarmament and non-proliferation going will hold the European countries together rather than keep them apart. They should seize the opportunity to take the initiative early on in the new US administration, to work on US willingness to accommodate legitimate and essential Russian security interests, and to multiply diplomatic approaches towards the 'states of concern' regarding missiles that are now being envisaged by the members of the MTCR – largely on the basis of European (and Canadian) proposals. For the rest, Europe must hope that the results of further tests will lead to a more sober assessment of the possibilities of NMD in Washington, dampen unilateralist enthusiasm and lead the United States back to the centrist road of a policy of arms control and non-proliferation.

Chapter Three

THE ULTIMATE WEAPON REDUX?[1]
US NUCLEAR POLICY IN A NEW ERA

Robert A. Manning

Since the beginning of the nuclear era, at each stage in the development of nuclear weapons states' arsenals, there has been some guiding US doctrine defining the role of nuclear weapons. During Eisenhower's tenure it was 'massive retaliation.' The Kennedy administration developed 'flexible response.' By the late 1970s and into the Reagan era it was 'counterforce' and 'warfighting'. Then, as the Cold War ended, almost overnight Washington and Moscow swiftly reached accords to dismantle massive amounts of the hardware and weaponry of an era past. Yet, so bloated were the arsenals of both nuclear powers that a decade later each side still has some 6,000 deployed nuclear warheads, with no near-term prospects of reducing levels below some 2,000-2,500 weapons – even after cuts exceeding 80 per cent those at the height of the Cold War. But guided by what US doctrine?

So convoluted did American nuclear logic become during the Clinton era that, after a decade of pursuing policies designed to achieve the maximum denuclearisation of Russia, when Russian negotiators suggested that the build-down to be negotiated in the proposed START III talks be reduced from 2,500 to 1,500 warheads, the United States refused. 'We can limit the nuclear danger by going down to a level of 2,000 to 2,500 without jeopardising our interest with respect to nuclear deterrence,' then State Department spokesman James Rubin responded. This despite the reality, as articulated by a Pentagon think-tank's survey, that, 'The United States is no longer concerned with large-scale conflict in Europe that could escalate into nuclear exchanges.'[2]

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1 *The Random House Dictionary of the English Language*, 2nd edn. (New York, 1987) gives redux as *adj.* brought back; resurgent.

2 See 'Strategic Forces and Deterrence: New Realities, New Roles?,' in *Strategic Assessment 1999*, Institute of National Strategic Studies, National Defense University, Washington, DC.

But what is the contemporary calculus of deterrence? Is deterrence still relevant, and if so, can it be achieved without nuclear weapons or with less reliance on nuclear weapons? Long-held assumptions of arms control and nuclear strategy alike have been overtaken by new and emerging realities. There is no contemporary equivalent of the 'Fulda Gap' – the central Cold War scenario where Soviet tanks might come pouring into Western Europe in a conventional conflict escalating into a global nuclear war. Indeed, it is difficult, even for experienced scenario-spinners, to contrive scenarios where military conflict between the United States and Russia would escalate into nuclear war. Yet the managers of US strategic forces during the 1990s remained animated by much the same logic and in addition have begun to articulate new concepts of utility for nuclear weapons entirely unrelated to Russia. But even after a major nuclear posture review in 1993 and a policy review in 1997, for the first time in nearly half a century, there was no clear concept defining a new strategic doctrine: where US weapons fit into US national security strategy and the purpose of US nuclear weapons. With the assumption of office, the Bush administration – based on policy ideas initially floated during the Presidential campaign – offers the prospect of fresh thinking about nuclear weapons as it begins its nuclear posture review in the first half of 2001.

The nuclear danger still exists, but it has been fundamentally transformed. Rather than Russian strength, it was Russian weakness, the fear of 'loose nukes', that preoccupied much of the American nuclear bureaucracy during the 1990s. Rather than superpower-centred, the danger is increasingly multipolar. The march of technology (e.g. diffusion of ballistic missile technology and the emergence of more capable ballistic missile defences) and the geopolitics of a world dominated by one superpower are altering notions of strategic stability. These factors make for a very dynamic security environment. Indo-Pakistani developments highlight the distinct possibility that nuclear war could not only occur but could remain principally a regional matter. Even the bedrock concept of deterrence has begun to come under question or at least has begun to be redefined.

III.1 New nuclear era

In the first half decade after the Cold War trends seemed to be towards devaluing nuclear weapons. A spate of arms control agreements – CFE,

INF, START I, START II and unilateral tactical nuclear weapons cuts accompanied the winding down of the superpower struggle. France and China joined the NPT, which was then extended indefinitely, and a host of nations denuclearised. UNSCOM seemed to keep Iraq from missile and nuclear breakout. In 1994 the United States signed an 'Agreed Framework' with North Korea under which Pyongyang froze and promised to eventually dismantle its nuclear weapons programme. The International Atomic Energy Agency (IAEA) was acquiring impressive new monitoring capabilities. Anti-proliferation norms appeared to be strengthening.

As the latter half of the 1990s rolled into a new century, however, developments began to point to more troublesome realities which suggest that such positive trends might be rather short-lived. From the American perspective, the nuclear danger began to appear increasingly complex and multifaceted. The 1998 testing of nuclear weapons by India and Pakistan, and official 'coming out of the closet' of both South Asian states as overt nuclear weapons states, was a watershed development. It was emblematic of the erosion of the non-proliferation regime, which appeared increasingly at risk in a world of at least eight de facto nuclear weapons states. Fears of Iraq and Iran attaining nuclear weapons capability have been an animating force in US foreign policy. Now the second half of the nuclear century is characterised by the increasing diffusion of weapons of mass destruction and the arc of potential conflicts in the generation ahead stretching from the Persian Gulf to North-East Asia, a veritable unbroken chain of proliferation. At the same time, the momentum of the US-Russian nuclear build-down seemed to falter. The spread of ballistic missiles potentially tipped with chemical and biological weapons has generated ideas of new purposes for nuclear weapons in the cottage industry of 'counter-proliferation' at the same time as the moral authority of the nuclear weapons states has eroded and a revaluation of nuclear weapons appears to be unfolding.[3]

Ironically, the likelihood of nuclear use – either in a regional conflict, in response to the threat or use of chemical biological attack or by terrorists – is probably greater now than in the bipolar era. No less ironic, the new nuclear threats which have preoccupied US nuclear policy managers over

[3] See Stephen Blank, 'Undeterred: The Return of Nuclear War,' *Georgetown Journal of International Affairs*, Summer/Fall 2000, for a discussion of the new security environment and how it has 'conventionalised' nuclear weapons.

the past decade are in large measure the result of the unanticipated – and often vexing – dilemmas of how to get rid of what were the crown jewels in Washington and Moscow's arsenals. Moreover, new factors in the strategic equation, particularly the imminent prospect of missile defence systems deployed by the United States and perhaps by its allies, has further complicated the strategic calculus of potential proliferators as well as nuclear weapons states such as China and Russia. Indeed, we have begun a new century with a multipolar nuclear world in which bureaucratic inertia has appeared a more powerful force shaping the US nuclear arsenal and stances on arms control than any carefully conceived and well defined doctrine.

The greatly underestimated part played by bureaucratic inertia in shaping policy helps explain eight years of little change in the US theory and practice in regard to nuclear weapons. If and when START II is fully implemented, the United States and Russia will still have some 3,500 warheads each. The twenty-first century nuclear nightmares begin with the hangover from the superpower stand-off: tons of fissile material and inadequate command and control of weapons in Russia raising fears of nuclear smuggling or accidental launch from a Russian 'loose nuke,' and US and Russian missiles on alert status.

However, a number of US analysts – some in conservative circles in and around the Bush administration – have begun to view US nuclear weapons as facing distinctly post-Cold War challenges, including some chilling possible scenarios: nuclear exchanges in an Indo-Pakistani or Israel-Iraq conflict, US-China conflict over Taiwan, or nuclear terrorism by an extremist group acquiring nuclear bomb material. All are more than the stuff of post-Cold War scenario-spinners: they are – in varying degrees – plausible conflict scenarios, and ones in which the US-Russian nuclear balance may be largely irrelevant in regard to deterrence. While within the realm of possibility, such outcomes are not necessarily the trend or the rule but may be the exception – the troubling lacunae of the non-proliferation system. Nevertheless, the ingredients for proliferation – insecurity, ambition, aggression, technology – have not diminished. Moreover, the revaluation of nuclear weapons that began in the late 1990s, evidenced in the discussion of new utility (e.g. counter-proliferation) and the hiatus in new US-Russian arms reductions, has further eroded the moral authority of a non-proliferation ethos.

A 1997 Presidential Decision Directive (PDD) seemed to suggest a posture of continuity plus 'hedging'. It reportedly said that 'nuclear weapons now play a smaller role in our security strategy than at any point during the nuclear era.' Yet at the same time, the policy directive stressed that nuclear weapons still mattered, with 'rogue' states as possible targets and the role of nuclear weapons to deter 'aggression and coercion' by maintaining the capacity for a response that, 'would be certain, overwhelming and devastating'.[4] Yet this modification did not call for any basic changes in the Single Integrated Operational Plan (SIOP) that guides nuclear targeting. In its two reviews, the Clinton administration did not rethink the core assumptions of US nuclear weapons policy.

Indeed, the fundamental questions about control of the atom reopened by the USSR's demise, though debated among the intellectual and political élite, are only beginning to be addressed: what is the purpose of nuclear weapons, does the end of the East-West conflict enable us to rid the world of them, do they remain the ultimate weapon of last resort, or do new realities require a rethinking of the concepts of nuclear deterrence? Does current targeting strategy reflect the threat environment, or are there new and different requirements? In light of the unfolding Revolution in Military Affairs (RMA), do new high-technology capabilities acquired by the United States and other advanced nations put a new premium of relatively low-tech weapons and delivery systems – ballistic missiles, and chemical, biological and nuclear weapons? Is 'asymmetric warfare' the prime threat facing the United States? And how does one define strategic equilibrium in a world where there are three or four major nuclear weapons powers, none of whom is a fully-fledged or even overt adversary, and some of whom are developing missile defence systems of varying degrees of efficacy?

The Bush US nuclear posture review will almost certainly reflect the new and emerging challenges highlighted by two commissions, one on the ballistic missile threat and the other on the military uses of space, both chaired by the new US Secretary of Defense, Donald Rumsfeld. Rumsfeld's conclusions on the ballistic missile threat added a new sense of urgency to American national security thinking. Of particular consequence was the notion that the US intelligence community underestimated the pace and

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4 See R. Jeffrey Smith, 'Clinton Directive Changes Strategy on Nuclear Arms', *The Washington Post* , 7 December 1997.

scope of the missile threat.[5] The steady diffusion of technology and modern industrial bases have put nuclear, chemical, biological, ballistic missile and cruise-missile technology within the reach of more than 25 nations and – as evidenced by the 1995 use of sarin gas in a Tokyo subway by the cult group Aum Shinri Kyo – non-state actors.[6] The deceptive fact that no nation (prior to the 1998 South Asian developments) overtly joined the nuclear club since China exploded a nuclear device in 1964 testifies to the potency of the nuclear taboo. But it overlooks the fact that 'opaque' or 'virtual' proliferation offers an intermediate status to countries wishing to keep their nuclear options open.

The two most likely potential zones of conflict contain numerous candidates for proliferation, particularly, Iran and Iraq in South-West Asia, Japan, and possibly Korea and Taiwan in an uncertain North-East Asia. All of these potential conflict areas involve vital US national interests and nations that are treaty allies of the US (Japan, Korea, Turkey/NATO) for whom extended deterrence is an important ingredient in their respective strategic calculus. In the case of South-West Asia, the risk of a Middle East conflict escalating into a nuclear exchange involving Israel, or US troops deployed in theatre, should Baghdad or Teheran obtain nuclear weapons in the course of the next five to ten years, cannot be dismissed.

III.2 The new nuclear debate: abolitionists vs. recidivists

Though the nuclear future will almost certainly be shaped largely by Asian security dynamics, the locus of the new nuclear debate has been centred in

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5 US Congress House Armed Services Committee, *Report of the Commission to Assess United States National Security and Space Management Organization*, 106th Cong., 2001 and US Congress House Armed Services Committee, *Report of the Commission to Assess the Ballistic Missile Threat to the United States*, 104th Cong., 1998.

6 See 'Proliferation Threats of the 1990s', *Hearing before the Senate Committee on Governmental Affairs*, 24 February 1993, S.Hrg. 103-208. On the status of nuclear proliferation, see Leonard Specter, Mark McDonough and Evan Mederios, *Tracking Nuclear Proliferation* (Washington DC: Carnegie Endowment for International Peace, 1995). For an appraisal of the low cost and availability of missile and nuclear technologies see Peter D. Zimmerman, 'Bronze Medal Technologies' *Orbis*, Winter, 1994. On the status of missile proliferation see Robert Shuey, 'Ballistic and Cruise Missile Forces of Foreign Countries', *CRS Report For Congress* 95-688, 5 June 1995.

the United States.[7] In his most recent plea for nuclear abolition, essayist Jonathan Schell points out in *Foreign Affairs* that, 'The Cold War was a special circumstance irrefutably different from any other struggle on earth. Now it appears that the Western nuclear powers believed that no special circumstance was needed to justify nuclear arms.'[8] This leads Schell to conclude that the dominant nuclear paradigm is one of indefinite possession, thereby eroding the non-proliferation regime and fostering a vicious circle of proliferation. In any case, these threats and new strategic developments form the new nuclear agenda, conceptually, one in which vertical (e.g. nuclear status of the United States, Russia, China) and horizontal (e.g. nuclear wannabes) risks are increasingly part of a singular challenge.

The question of what nuclear future lies ahead – a reversal of the build-down, a wave of proliferation or a marginalising of nuclear war – must be seen as part of a broader reshaping of global institutions and patterns of international relations slowly unfolding a decade since the demise of the Soviet Union and, above all, a reflection of the regional and global security environment. It puts to the test liberal institutionalist theory – particularly in dynamic and economically interdependent East Asia – and may underscore a less comforting but more plausible reality: international systems work to the degree that leading powers are invested in them. Yet the current nuclear predicament features the United States as the pre-eminent global power whose dominance can only be challenged by asymmetric conflict for the foreseeable future and which may have defensive systems just over the horizon, further complicating notions of strategic stability.

Against this backdrop, a new and sharply polarised nuclear debate emerged in the mid-1990s, one that rightly harks back to the original efforts to control the atom in the 1948 Acheson-Lilienthal report.[9] While it has been a lower profile debate over the past several years, the voices of the 'New Abolitionists' continue to echo, most recently in Jonathan Schell's *Foreign Affairs* essay. What has intrigued many is that those now suggesting the

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7 See Thérèse Delpech, 'Nuclear Weapons and the "New World Order": Early Warning from Asia,' *Survival*, Winter 1998-99, for a discussion of the centrality of Asia in defining the nuclear future.

8 See Jonathan Schell, 'The Folly of Arms Control', *Foreign Affairs*, September/October 2000.

9 See the *Washington Quarterly*, Summer 1997, pp. 85-210, for a good cross-section of views by prominent nuclear advocates and abolitionists.

United States ought to take seriously the long-stated – if intentionally vague – rhetorical goal of ultimately eliminating nuclear weapons (to which the US has pledged in Article 6 of the Nuclear Non-Proliferation Treaty (NPT)) have not been the usual suspects. It is one thing when 'Greens' call for ridding the planet of nuclear weapons on the moral grounds that they are unacceptably dangerous and unnecessary. It is quite another when leading Cold War nuclear theologians such as Paul Nitze, Fred Ikle and the very top military officials, recently in charge of the US nuclear arsenal question the wisdom of retaining large numbers of nuclear weapons – and even the weapons themselves.

Advocates of radical cuts are united in the view that nuclear weapons have diminishing utility, but differ on whether nuclear weapons have lost all or merely some of their value, and hence whether to retain a modest nuclear stockpile or reduce to zero. Some are animated by the moral outrage of traditional anti-nuclear proponents; many national security heavyweights questioning the nuclear status quo employ a new strategic calculus in which nuclear weapons are peripheral. In a high-profile gesture, a group of 60 retired top military leaders from the United States, Europe and Russia issued a statement in December 1996 calling present arsenals 'excessive' and urging deep cuts to 1,000 or lower while envisioning 'progress towards nuclear abolition'. The Canberra Commission pointed clearly in the same direction, if wanting to take further steps towards the goal of abolition. The most celebrated new abolitionist, General Lee Butler, a veteran of nuclear policy who headed the US Strategic Command until 1994, starts from the shift in the risks versus benefits ledger in the absence of US-Soviet strategic competition leading to a moral imperative: 'Accepting nuclear weapons as the ultimate arbiter of conflict condemns the world to live under a dark cloud of perpetual anxiety.' [10]

But other nuclear doubters focus on hard-edged security considerations, viewing nuclear weapons as a means rather than an end. Paul Nitze, for example, sees the end of East-West struggle and the advances in US precision-guided munitions and other hi-tech weaponry as opening the prospect of achieving deterrence largely through conventional arms. Andrew Krepinevich, Jr., a leading defence analyst and member of the

[10] Gen. Lee Butler, 'Remarks to the National Press Club', 4 December 1996, distributed by the Stimson Center.

Pentagon's 1997 National Defense Panel, argues that the nature of post-Cold War threats – principally Bosnia-type local, ethno-nationalist or Iraq-type regional conflicts – and new military technologies mean that 'the utility of the US nuclear arsenal will likely be eclipsed by the capabilities of a host of emerging conventional and electronic weapons.'[11] Fred Ikle complains that, 'new thinking has been obstructed by the Cold War detritus and by ingrained habits of thinking.' If the nuclear legacy did not exist, he asks rhetorically, would the Defense Secretary 'testify before Congress that the US is required to purchase 3,500 strategic warheads? Would Russian defence planners . . .' make similar arguments?

The question of what are the imperatives of security in a new era is a central element in the new debate. One of the most lucid abolitionist views of the emerging security predicament was presented by Barry Blechman and Cathleen Fisher of the Stimson Center, who argue that the character of international relations:

> 'is undergoing an irreversible transformation that will eventually invalidate rationales for weapons of mass destruction . . . Technology diffusion and economic interdependence are creating a world in which growing numbers of states share important common interests . . . The governments of those modernist states have delegitimated the very idea of using military force in the settlement of disputes.'[12]

There is a compelling case that the structure of relations among states is evolving. Certainly war between France and Germany today is unimaginable. There have been debates raging in American academic circles as to whether democracies go to war against one another and, indeed, whether war among major powers has become obsolete.[13] Yet outside the zone of transatlantic democracies there is a wide swathe of real and potential instability and nuclear proliferation and possible nuclear conflict, as discussed above, from South-west to North-East Asia.

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11 See Andrew F. Krepinevich, Jr., 'Forging a Path to a Post-Nuclear US Military', *Issues in Science and Technology*, Spring 1997, pp. 79-84.

12 See Barry M. Blechman and Cathleen S. Fisher, 'Phase Out the Bomb,' *Foreign Policy*, Winter 1994-95, pp. 79-95.

13 See Michael Mandelbaum, 'Is Major War Obsolete?' *Survival*, Winter 1998-99.

Indeed, there is an eerie sense of déjà vu in such optimistic views. In 1848, John Stuart Mill argued that burgeoning commerce was, 'rapidly rendering war obsolete . . . The great extent and rapid increase of international trade . . . is the principal guarantee of the peace of the world.' A century ago, during the first wave of globalisation, Ivan Bloch wrote a multi-volume classic called *Is War Obsolete?*, arguing, 'The dimensions of modern armaments and the organisation of society have rendered its [war's] execution an economic impossibility.' None the less, unlike many contemporary political scientists, he concluded presciently that war was likely. Norman Angell's 1910 best-seller, *The Great Illusion*, explained that, 'International finance has become so interdependent and so interwoven with trade that . . . political and military power can do nothing.' Globalisation, then as now, tends to be overrated as a force obviating military conflict. In the view of most American analysts, the notion of a benign security environment in which US nuclear weapons have lost their relevance holds little sway.

III.3 Recidivist backlash

Clearly basing a national security policy on such a fundamental shift in the nature of interstate relations is neither prudent nor politically feasible at the end of a century during which Auschwitz and Hiroshima dramatised an unprecedented human destructiveness that increased exponentially with the aid of technology. Whether in Saddam Hussein's quest for hi-tech weaponry, Bosnia, or in the machetes of Rwanda, the dark side of human nature has not been expunged from the soul of man. The spectre of terrorist attacks on American targets, whether embassies abroad or on American soil (e.g. World Trade Center) highlights to many US analysts a world that is different, but not necessarily less dangerous than in years past.

But what stands out to many US analysts is the fluidity of current and potential threats at a time of epochal transition, in terms of both security and technology. Indeed, as was the case during the first period of globalisation a century ago, new technologies, whether trains, tanks and telegraphs or, now, micro-electronics, tend to expand military capabilities in similar proportion to industrial (or post-industrial) capacity. After all, the same Internet heralded for fostering the global village also enables users to download knowledge of how to make a nuclear bomb and conduct information warfare. Such dark fears, along with entrenched thinking and bureaucratic

interests, generated what might be dubbed a 'recidivists' backlash' to the new abolitionist offensive in the late 1990s.

This camp, long sceptical about arms control, tends to blur the important distinctions among nuclear heretics and views them as all part of a single slippery slope leading to a foolish squandering of the US nuclear deterrent. The recidivists are generally uncomfortable with the new nuclear logic expressed in initiatives such as the comprehensive test ban, curbs on the production of nuclear materials, and above all, have a latent fear of Russia, and fear the rise of China and new threats from Third World proliferators. They view extended deterrence as the critical factor in the Cold Peace of the past four decades. But deterrence is no longer defined in Cold War terms, though nuclear weapons, in this view, have not lost their value. A 1998 forum organised by the Center for Security Policy which included two former Secretaries of Defense concluded that calls for radical cuts were 'ill-advised and reckless,' denounced the Comprehensive Test Ban Treaty (CTBT) as a prime reason why, 'the US capability to produce and maintain nuclear weapons is in a dangerous state of decline.'[14] Another analytical argument in this view is that deterrence is no longer as effective as during the Cold War. Moreover, some see new utility for nuclear weapons in either pre-empting or retaliating to WMD attacks.

More moderate voices in the pro-nuclear camp do not question the current nuclear build-down, but exhibit deep discomfort with the impulse of abolition. Former National Security adviser General Brent Scowcroft and Arnold Kanter, former under-secretary of State, for example, concede that, 'No one can "prove" how many nuclear weapons are appropriate, excessive or inadequate . . .' But they reject the argument 'that the world can be made safer in direct proportion to the number of nuclear weapons which are dismantled.'[15] They worry about the destabilising, unintended consequences of going too low. Indeed, a recent report from a study group organised by a conservative think-tank has examined current and future requirements and the rationale for US nuclear forces. The group, several of whose members have assumed top policy-making positions in the Bush administration, concludes that the dynamic nature of the current period precludes locking

[14] See Center for National Security Study summary of Roundtable on the Nuclear Deterrent, 25 August 1997.

[15] See Brent Scowcroft and Arnold Kanter, 'Which Nuke Policy,' *The Washington Times*, 24 March 1997.

the United States into a posture bound by irreversible steps, whether technological (e.g. constraints on bomb-making abilities) or political (rigid, negotiated arms control agreements). 'Even the most basic of variables concerning US nuclear force posture requirements (e.g. the identity of likely foes) may change rapidly, affecting US nuclear requirements. The current relatively benign conditions cannot be predicted with any confidence to pertain in the future.'[16] However, the study group report did not advocate a position on the appropriate structure and quantity of the US nuclear deterrent in the new and emerging circumstances facing US policy. Indeed, there are differing views among conservative strategic analysts. To some, the analysis reinforces the view that nuclear weapons retain their importance, that not only is arms control dangerous but that nuclear reductions or dramatically altering the SIOP would leave the US unable to meet its requirements and compromise the ability to prevail in possible nuclear conflicts. Implicit in this view is a strong desire to maintain US nuclear superiority. Others who hold the same analysis of the strategic situation see far less utility for nuclear weapons in the US defence calculus based on the unfolding RMA, and especially, a world in which robust missile defence systems are deployed. This latter view is embodied in candidate Bush's campaign initiative, made official policy by President Bush in his 1 May NDU speech.

The conservative backlash found bold expression in the US Senate debate over ratification of the CTBT in 1999. Though the Joint Chiefs and leading scientists expressed confidence in the Administration's $40 billion Stockpile Stewardship programme to be able to maintain the safety and reliability of the US arsenal, recidivists feared it would decay, rendering our deterrent incredible. In addition, they pointed to difficulties in verification as reasons to oppose the test ban, long the goal of non-nuclear states as an emblem of superpower seriousness in reducing nuclear arms. The fact that the United States has the data from over 1,000 nuclear tests (China has conducted 41) from which to do advanced computer simulations and sub-critical tests gives the United States a large advantage in maintaining the stockpile while stopping China and Russia from testing counts for little to these sceptics.

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16 See *Rationale and Requirements for US Nuclear Forces and Arms Control*, National Institute for Public Policy, January 2001. The group included Stephen Hadley, the new Deputy NSC Adviser, Robert Joseph, now Senior Director for Counter-proliferation, Missile Defense, and Homeland Defense, top Pentagon adviser, William Schneider Jr., as well as senior analysts from US weapons laboratories and other notable ex-officials.

More recently, breakthroughs in simulation at US nuclear laboratories in mid-2000 may aid renewed efforts to gain Senate approval for the CTBT, albeit with some US legislative caveats.

It is, however, at best an open question whether the new Bush administration will renew the effort to ratify the CTBT. There are elements in the Administration who have been less sceptical than the prevalent voices in the Congress about pursuing the CTBT, albeit with some new conditions such as a five- or ten-year review process. Such compromise has succeeded before, particularly in the case of the Chemical Weapons Convention, which was ratified after a number of Congressional concerns were addressed. However, there are some nuclear specialists, not least at various US national laboratories, who question whether US nuclear arsenals can be adequately maintained – or that new nuclear weapons can be modified or designed without any testing. In any case, should the CTBT languish and remain unratified by nuclear weapons states (including India and Pakistan), it would certainly undermine the spirit if not the premise of the 1995 extension and 2000 conference of the NPT. Moreover, it would give licence to India, Pakistan, Russia and China to conduct further tests should they also seek to develop new weapons, or in the case of China, seek to MIRV.

III.4 Nuclear state of play: the good, the bad, the ugly

The reality is that both sides of the debate have valid concerns and insights into both the possibilities and pitfalls of a less nuclear era. Yet both are ultimately flawed. One does not have to believe in universal disarmament, much less by a specific date, nor have unrealistic expectations regarding the reliability of regimes, institutions, treaties and agreements for countries facing threats to their security, to see the need to rethink the role of nuclear weapons.

Despite recent backtracking and speculation about the destabilising effects of yet to be perfected missile defence systems, there is substantial good news in the contemporary nuclear world. Indeed, the world may now be potentially better positioned to halt the spread of WMD – and the United States to lead by example – than at any time since the period immediately after World War II. It is worth recalling the momentous developments that reinforced the nuclear taboo: under current arms-reduction accords, entire

categories of weapons (intermediate-range missiles) have been eliminated, and after START II and III are implemented, US and Russian nuclear arsenals will have been reduced by nearly 80 per cent from Cold War peaks. Moscow has indicated a willingness to go still lower to 1,500 warheads; and George W. Bush has suggested that deeper and unilateral cuts beyond those envisioned so far might be on his agenda.

Iraq's and North Korea's nuclear subterfuge sparked (admittedly limited) efforts to bolster non-proliferation mechanisms, including the role of the UN Security Council; democratisation has accompanied the roll-back of proliferation in Argentina, Brazil and South Africa; Ukraine, Kazakhstan and Belarus gave up nuclear weapons and joined the NPT as non-weapons states. The NPT was successfully extended indefinitely in 1995 and realising the CTBT is now in sight. The 1994 North Korea nuclear deal may yet prove to be an important precedent of demand-side non-proliferation – or prove to be a dangerous precedent further eroding the regime if the IAEA is unable to eventually reach a clear judgement about the discrepancy in Pyongyang's declared and actual plutonium. Many of the new developments – the CTBT, fissile material cut-off, increased transparency in weapons states – have reduced the discriminatory character of the nuclear bargain. There remains the possibility that nuclear weapons can be devalued as the currency of power. While admittedly best-case scenarios, it is not implausible that, during the tenure of George W. Bush, actuarial tables may alter the Iraq threat; that reformers may prevail in a more democratic Iran, and that North Korean missiles and WMD could be sharply diminished through diplomatic bargains or regime collapse.

For the United States, current realities – the end of the long, twilight struggle, new security dynamics, new and emerging US high-tech conventional military capabilities and a rapid march towards missile defence systems – point to a significant de-emphasis of nuclear weapons in military planning. It is increasingly possible to argue, as George Kennan did (unsuccessfully) in 1949, that nuclear weapons should be viewed as 'superfluous to our basic military posture – as something we are compelled to hold against the possibility that they might be used by our opponents.'[17] In the foreseeable future, the benefits to US security of maintaining a robust,

[17] See Memorandum by the Counsellor, *Foreign Relations of the United States*, 1950, vol. 1, 22-44.

global nuclear triad may be surpassed by the advantages of a less nuclear world.

US policy, however, has been driven less by a strategic vision than by the momentum of the winding down of the Cold War, ideology, and technological imperatives. The enormous task of implementing and building on the framework of the Bush-Gorbachev nuclear build-down (not to mention the barrage of multilateral arms control efforts) consumed – if not overwhelmed – the energies of beleaguered policy managers during the Clinton era. The new nuclear problems of safely storing and destroying warheads in a verifiable manner, accounting for all nuclear material and storing and destroying fissile materials, are all uncharted territory. The physical task of destroying some 1,500-2,000 warheads a year is a daunting new challenge requiring intrusive verification and previously unimaginable Washington-Moscow cooperation. This is much of the story of the Clinton administration in regard to nuclear weapons.

Thus, it is understandable that there has existed a kind of conceptual deficit. In the first nuclear half-century, strategic realities were more lucid, shaping the guiding doctrines: Eisenhower had 'massive retaliation' to overcome the Soviet conventional advantage with nuclear superiority. During the 1960s we had 'flexible response', designed to get beyond an 'all or nothing' calculus. And in the post-Vietnam era it was counterforce and war fighting as superpower arsenals spiralled to astronomical levels. Was there ever really a requirement to hit 35,000 targets? Though the basis of past nuclear doctrine is long gone, no new doctrine is in evidence. The 1994 Nuclear Posture Review (NPR), the first major review of nuclear policy in fifteen years, made some modest adjustments but concluded that the nuclear status of START II was just right: it was ordained by the gods that the United States and Russia needed 3,500 warheads. The arbitrary nature of US nuclear logic was painfully evident when Presidents Clinton and Yeltsin agreed to negotiate a START III accord, further reducing their respective nuclear arsenals to about 2,000-2,500 warheads each some 18 months later. Moreover, it raises questions about the reasoning of the NPR and the 1997 policy review, both of which claimed a need to 'hedge' against the possibility of a resurgent Russia if its democratic experiment fails.

But if one is concerned about Russia, is that not an argument for getting rid of as many Russian warheads as rapidly as possible? And if that is the case,

why is it Russia that is pressing for deeper cuts? Indeed, with the ascent to power of Vladimir Putin, we have seen remarkable developments. Within weeks of becoming President, Putin got START II ratified, conditional on START III and the ABM Treaty, ratified the CTBT, and launched an assertive campaign against US plans to deploy national missile defence systems that would lead to abrogation of the ABM Treaty. Moscow's new-found diplomatic agility put the United States in a preposterous situation of rejecting Russian offers to reduce down to 1,500 or 1,000 warheads, thus arguing to keep the roughly 2,500 envisioned in START III. The US absence of new strategic doctrine left a policy driven by bureaucratic inertia and something of a tautological argument: we need the extra 1,000 weapons because that is what US operations plans require. But if Russia is not an adversary, why have not operational plans been altered to reflect new realities? Careful analysis of Congressional testimony by the Joint Chiefs reveals that their case for not going below the force posture envisioned after current nuclear agreements is that below such levels they would not be able to accomplish the missions they have been assigned. The implication is that should the National Command Authority determine, for example, that there are far fewer remaining targets in Russia, deeper cuts could be considered.

Ironically, Russian weakness has led to a revaluing of nuclear weapons in Russian defence calculus, which in turn complicates US thinking on nuclear weapons. In fact, Russia faces a predicament not dissimilar to that of the US in the 1950s: the sharp decline in conventional capabilities has lowered the nuclear threshold in Russian military doctrine and led to a discarding of the always propagandistic Soviet 'no-first-use' policy. The Russian view that nuclear weapons might be used to deter or respond to conventional conflicts is quite explicit and codified in an April 2000, Russian foreign ministry document articulating Moscow's security doctrine.[18]

Thus, tactical nuclear weapons, in contemporary Russian thinking, appear part of a new strategic concept. One Russian analyst, Nikolai Sokov, argues that one consequence is 'renewed attention to non-strategic nuclear weapons, which are viewed as a deterrent to NATO's conventional forces in a mirror image of the mission assigned to NATO's tactical nuclear weapons

[18] See *Nezavisimaya Gazeta*, 22 April 2000.

during the Cold War.'[19] Sokov suggested that if another round of NATO expansion occurs, one option that may be considered is placing tactical nuclear weapons in Kaliningrad. Recent reports suggest that nuclear warheads may have already been stored in Kaliningrad, perhaps in an effort to deter or adjust to the next round of NATO expansion in 2002-03, when the Baltic states may join.[20]

But it is argued by some US analysts the 'nuclear parity' and continued Cold War arms control paradigm in US-Russian relations is profoundly counterproductive. The premise of this approach is that of the Cold War, of adversarial relations. But at present and for the foreseeable future, while there will certainly be numerous issues on which Washington and Moscow differ, it is difficult to envision any dispute rising to the level of nuclear exchanges. Moreover, the strategic goal of both the United States and European Union is to facilitate Russia's transformation into a pluralist, rule of law-based market economy. In such a universe, for the United States, would Russian nuclear weapons be substantially different from French nuclear weapons?

One measure of the weight of Cold War baggage on American thinking is a recent and otherwise unusually innovative study done by a veteran arms control official. In a comprehensive assessment of arms control, Jan Lodal, a senior Pentagon official in the Clinton administration concludes that the US nuclear arsenal should be reduced to 1,200 warheads and that current START and ABM Treaties should be replaced by a new 'Strategic Transparency, Safety and Stability,' treaty. Yet he also argues that, 'Deterring a Russian nuclear attack should be the primary mission of US nuclear forces.'[21]

The key point in terms of assessing nuclear requirements is to bear in mind that the purpose of arms control is to enhance stability and predictability, and reduce the risk of war. That is the measure of virtue in any arms control accord, or for that matter any unilateral actions altering strategic postures, as

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19 See Nikolai N. Sokov, 'Russia's Approach to Deep Reductions of Nuclear weapons', Stimson Center, September 1997.

20 See Bill Gertz, 'Russians Move Nuclear Weapons to Kaliningrad,' *Washington Times*, 3 January 2001.

21 See Jan Lodal, *The Price of Dominance*, Council on Foreign Relations Press, February 2001.

was the case in the Bush-Gorbachev unilateral-reciprocal moves to reduce tactical nuclear weapons in 1991. The prospects for conflict among the major powers are low in the near term. Russia remains in a grey zone, part partner, part latent potential threat, though the character of Russia and the nature of US-Russian relations have been transformed. Yet this is not reflected in the doctrine guiding views of nuclear weapons which is part Mutual Assured Destruction and part reassurance.

This situation is further complicated by the prospect of US deployment of national missile defences, perhaps by the end of the decade. Should such deployments be realised, a whole new layer of complexity in calculating the relationship of offence and defence arises in seeking to determine what constitutes strategic stability – depending on what architecture of defences is built. At present, the US focus is on developing missile defence capabilities, with few discernible conceptual notions of how to define such complex equations beyond the simple arithmetic of missile defence interceptors versus potential warheads.

III.5 New realities, new thinking

There are, however, important signs that US thinking about nuclear weapons has begun to move in new directions. In a major statement during the 2000 Presidential campaign, Bush accused the Clinton administration of being 'locked in a Cold War mentality' and called for 'a new approach to nuclear security that matches a new era.'[22] Bush elaborated on this theme in a major speech on strategic policy on 1 May 2001 at the National Defense University, arguing, 'We need new concepts of deterrence that rely on both offensive and defensive forces. Deterrence can no longer be based solely on the threat of nuclear retaliation . . . we need a new framework.'[23] Bush has broadly outlined a new strategic vision weighted heavily towards establishing defensive systems, though he said that 'deterrence remains the first line of defence'. Yet in his campaign statement, and more emphatically in his 1 May speech, Bush boldly stated that, 'Russia itself is no longer our enemy. The Cold War logic that led to the creation of massive stockpiles on

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22 See Governor George W. Bush, 'New Leadership on National Security,' statement of 23 May 2000, on www.georgewbush.com website.

23 See the *New York Times*, 2 May 2001 for the text of Bush's speech and analysis of it.

both sides is now outdated. Our mutual security need no longer depend on a nuclear balance of terror.'

Instead, Bush pointed towards a defence-oriented world which de-emphasised nuclear weapons: 'America should rethink the requirements for nuclear deterrence in a new security environment, The premises of Cold War nuclear targeting should no longer dictate the size or our arsenal . . . I will pursue the lowest possible number consistent with our national security.'[24] President Bush fulfilled the promise of Candidate Bush, and quickly initiated a review of the US nuclear force posture to determine US requirements, but spoke of reductions 'significantly lower than what has already been agreed to under START II', and suggested unilateral reductions rather than protracted arms control negotiations. In addition, Bush argued the United States 'should remove as many weapons as possible from high-alert, hair-trigger status.'

The degree and timetable for the realisation of such US policies remain an open question. 'Operationalising' the technologies for effective national missile defences appear problematic before the 2008-09 period at the earliest, and amidst a divided Congress obtaining the budget will be no less problematic.[25] None the less, for a Presidential candidate to unveil such an initiative in the midst of a campaign in which foreign affairs was a marginal issue was a remarkable development. No less, the rapid pace of initiating change in the first 100 days of the Bush administration is striking.

The initial thrust of missile defence proponents is to respond to the threat of the proliferation of ballistic missiles, faced with the prospect that they would deliver WMD. At the theatre level (e.g. systems such as PAC-3 and Navy Lower Tier) the consequences for the larger strategic balance among major nuclear powers appear minimal. In regard to the implications of exo-atmosphere national missile defence systems in the process of being developed, different architectures would have different implications for potential adversaries of the United States. The two options considered by the Clinton administration, the so-called C-1 and C-3 options, would have meant 100 interceptors based in Alaska, in the former case, and 200 inter-

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24 Bush 23 May 2000 statement cited earlier.

25 See Roberto Suro, 'Missile Defense is Still Just A Pie in The Sky', *Washington Post*, 12 February 2001, p. A3.

ceptors in two different locations in the case of the latter. Neither option would neutralise the Russian nuclear deterrent. Moscow's concern was that such options were only the beginning, and that more robust systems could eventually follow. In the case of China, Beijing would almost certainly tailor its nuclear modernisation so as to be able to overcome whatever defence architecture the United States might build.

China is clearly the wild card that looms largest in a dynamic strategic landscape that will impact the direction of US policy. Beijing has a modest arsenal of some 350-450 weapons; only some two dozen ICBMs. It is modernising its nuclear arsenal qualitatively – e.g. smaller, more accurate warheads, solid-fuel, longer-range missiles, multiple-warhead missiles – and quantitatively. China has viewed its nuclear capability defensively, as a deterrent, though there are some indications that Beijing may be altering its view and adopting a limited deterrence posture (contemplating nuclear use). Because it is a smaller nuclear power, it has so far not been in the arms control equation, and its position has varied over the past decade. But China's status as a rising great power only partly integrated in the current international order suggest that its nuclear behaviour may be the single most important variable affecting the nuclear status quo in the early twenty-first century.[26]

During the course of President Bush's tenure, China will deploy the DF-31, a solid-fuel mobile missile that will alter its strategic relationship with the United States (and Russia). The DF-31, and a longer-range missile, the DF-41, not projected for deployment before 2010, will for the first time provide China with a survivable second-strike capability. The concern that its modest nuclear arsenal may be neutralised by a robust US national missile defence system is one that has preoccupied Chinese nuclear planners. Some in the United States explicitly seek to neutralise China's deterrent, while others have little interest in China at all but are focused on obviating US vulnerability to WMD attack.

In any case, China is likely to take whatever steps may be necessary to avoid such an outcome. China's nuclear modernisation will continue regardless of what decisions the United States takes on missile defence.

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[26] See Robert A. Manning, Ronald Montaperto and Brad Roberts, *China, Nuclear Weapons and Arms Control*, Council on Foreign Relations Press, April 2000.

However, the end-state of that modernisation – whether China develops MIRV-ed missiles, and the force structure of its nuclear arsenal – may in significant measure be an outcome of worst-case planning against US missile defences. Some in the United States may hope to replicate the experience with the Soviet Union, by forcing what is viewed as a fragile regime in Beijing to divert resources to military competition. For the foreseeable future, however, China, which has in place a nuclear infrastructure, could accelerate production of nuclear warheads without prohibitive costs. At present, offence (including penetration aids and decoys) is significantly cheaper than more effective defence and, unlike the USSR, China has a dynamic economy. But in any case, it should be kept in mind that even a tenfold increase in Chinese strategic nuclear warheads to roughly 250 would not effect the strategic balance appreciably.

III.6 Opaque nuclear powers

More broadly, the question of emerging WMD threats is another factor shaping Washington's nuclear calculus. The superpower build-down has had no favourable impact on the status of threshold or opaque nuclear powers – Israel, India, Pakistan – nor on nuclear wannabes: Iran, Iraq, and possibly North Korea. This, of course is a powerful counter to the abolitionists. The Gulf War brought to centre stage the new threat of ethnic and regional conflicts, unfrozen by the end of the Cold War, being played out with WMD. Iraq, and then North Korea, dramatised the reality that small powers have the capacity to complicate, if not potentially deter, intervention by US forces and/or allies on distant battlefields with missiles and chemical or nuclear weapons. In the foreseeable future they may attain the capabilities to directly threaten the territory of the United States.[27] The ever-widening diffusion of technology, reflecting increasingly sophisticated industrial bases in non-Western countries, is an irreversible reality of the multipolar post-Cold War world. The US Rumsfeld Commission report issued in 1998 underscored this new sense of threat. It concluded that US intelligence could not adequately detect or predict the capacity of so-called 'rogue' states to acquire ballistic missiles. The report, punctuated in August 1998 by a North

[27] Paul R. S. Gebhard, 'Not by Diplomacy or Defense Alone: The Role of Security Strategies in US Proliferation Policy', *The Washington Quarterly*, Winter 1995, vol. 18, no. 1, pp. 167-79.

Korean test of an intermediate range *Taepo Dong* missile over Japan, gave new impetus to US plans to develop and deploy missile defence systems.
What could cause a new wave of proliferation that could impact the trajectory of US nuclear policy? Ironically, the very success of US forces in the Gulf and the war over Kosovo, of their precision-guided munitions (PGMs) and electronic domination of the battlefield, almost certainly heightens the appeal of nuclear weapons to potential proliferators who, lacking major power allies and faced with overwhelming conventional force, may see utility in the logic of the nuclear deterrence that guided the superpowers during the Cold War. When asked what he thought were the lessons of the Gulf War, the Indian military chief-of-staff reportedly replied, 'Never fight the US without nuclear weapons.'[28] Similarly, when former US Defense Secretary William Perry, sent to Pyongyang as Special Envoy, asked North Korea to give up its ballistic missile programme he was told by DPRK military leaders, 'We will not be Yugoslavia'. As the US-Soviet arms race further recedes, other countries may try to follow in the footsteps of the nuclear powers, seeking to use nuclear threats to achieve political and military objectives. Or if the United States withdrew its security guarantees from, say, Japan or South Korea, how would they respond?

In the Middle East, it is unrealistic to expect Israel to relinquish its ultimate insurance policy until there is a full-blown peace in the region accompanied by disarmament of WMD by potential adversaries in the region. This reality is reflected in Israel's position of supporting a zone free of WMD. In the interim, the dangers of conflict escalating to the nuclear level cannot be dismissed. Similarly, in South Asia, for Pakistan nuclear capability is the great equaliser against an Indian conventional edge. So long as the basic antagonism – symbolised by the Kashmir dispute – between Islamabad and Delhi exists, Pakistan is unlikely to reconsider its nuclear option. Moreover, the growth of Islamic political groups outside government control and the possibility that a troubled Pakistan could move into the failed-state category raises the possibility, albeit still remote at present, of a nightmare scenario in which anti-Western Islamic groups could gain control of Pakistani nuclear weapons.

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[28] Cited in Les Aspin paper, 'From Deterrence to Denuking' in *Shaping Nuclear Policy in the 1990s: A Compendium of Views*, House Armed Services Committee, 1992.

III.7 The importance of being nuclear

For US strategists, there are several important conclusions to draw from this brief overview of the nuclear landscape. One is that, despite the moral or legal linkage in the NPT, as a practical matter there is perhaps only a tangential relationship between the numbers of superpower warheads and horizontal proliferation. In South Asia, the Middle East and North-East Asia, nuclear weapons are viewed as a deterrent or a means of coercion based on the regional security dynamic. Conversely, while US nuclear weapons may be of some utility against a micro-nuclear power, one with warheads in the single or double digits, such emerging nuclear threats do not require large nuclear stockpiles. They are irrelevant to Bosnia-type conflicts. It is difficult to envision such a scenario of nuclear use, beyond a mission of counter-proliferation – that is, pre-emption of a detected nuclear facility or any situation that would require more than warheads numbering in the dozens or perhaps hundreds. In the case of nuclear, biological or chemical terrorism by a non-state actor, nuclear weapons have no relevance as a deterrent, and retaliation could be problematic. Such scenarios have led some US analysts to argue for a new nuclear mix, with smaller warheads designed to penetrate hardened bunkers or silos.

The question of how the new American preoccupation with defensive systems to counter current and emerging missile/WMD threats might impact the non-proliferation regime does not appear to be a major concern in US thinking. Indeed, the entire new focus on counter-proliferation and 'home-land defence' appears to assume certain limits to the efficacy of non-proliferation. Moreover, it is argued that the very defensive nature of the new US initiative should not be threatening to adherents to the non-proliferation regime. In any case, the logic of counter-proliferation and missile defence appears premised on an assessment of the limits non-proliferation structures. That is to say, the ambitions and/or fears of some middle powers – for the foreseeable future, middle powers in the arc from South-West to North-East Asia – augur for proliferation. The logic of missile defence is that, for prospective proliferators such as North Korea, Iraq or Iran, neither the NPT nor major arms reductions by the major nuclear powers are likely to deter their ambitions. Given US concern that in future regional conflicts, adversaries such as Iraq might obtain WMD capabilities that could constrain the US ability to mobilise coalitions and intervene, prudence counsels developing a capacity to neutralise the threat.

Another conclusion is that nuclear weapons clearly continue to have a deterrent value. As a study in the late 1990s by the National Academy of Sciences put it, 'As long as nuclear weapons exist, this very existence will exert a deterrent effect – existential deterrence – against unrestricted conventional war among major powers . . . even the existence of the idea of nuclear weapons – more specifically, the ability of many states to make them – is enough to create an existential deterrent effect.'[29] Whether as a hedge against uncertainty in the case of Russia and China, as a means of security assurance for allies, or as a means of reversing proliferation, nuclear weapons remain part of the global and regional security equation.

III.8 Calling the South's bluff: revisiting the nuclear bargain

But does all this mean that the commitment made by the United States towards nuclear disarmament under the NPT is empty rhetoric? The issue is more complicated than that. Obviously, nuclear weapons cannot be uninvented. This brings us back to the original dilemma of controlling the atom that led to the unsuccessful Baruch Plan to place the atom under international control. The essence of the nuclear bargain between the nuclear haves and have-nots consists of a willingness of the South to eschew nuclear weapons in exchange for cooperation in peaceful uses of nuclear energy and a general commitment to disarmament. It is worth recalling the precise language of Article VI of the NPT, which requires parties:

> '. . . to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, on a treaty on general and complete disarmament under strict and effective international control.'

What is always overlooked in the non-nuclear South's rhetoric is the linkage of nuclear disarmament with 'general disarmament,' both under 'effective control.' Realising such a state would require a radical new definition of the meaning of sovereignty. On the question of nuclear disarmament, the end of the Cold War and new US conventional military capabilities lead one to see

[29] See *The Future of Nuclear Weapons*, National Academy of Sciences, 1997.

how former Defense Secretary Les Aspin could muse, 'If we now had the opportunity to ban all nuclear weapons, we would.'[30]

As a matter of principle, if adequate verification and enforcement against nuclear breakout were possible, a zero nuclear option could be in the US interest. But the requirements of 'anywhere, anytime' challenge inspections and deeply intrusive monitoring would require no less than something at least as intrusive as UNSCOM was hoped to be. Yet UNSCOM was only possible after Iraq's defeat in the Gulf War, with the authority to burrow under every nook and cranny in Iraq. And that took overwhelming military defeat, and even then UNSCOM has proven of limited utility. Similarly, a reasonable definition of effective enforcement would have to go far beyond mandatory sanctions to include a UN Security Council mandate for pre-emption if intelligence verifying nuclear proliferation were obtained. As a practical matter, such international consensus is unimaginable for the foreseeable future, making nuclear abolition a risky and unwise course that would likely leave the world less safe.

Another practical problem is the fact that we do not know how many Russian warheads exist, and therefore how much nuclear material there is. In the United States, the Department of Energy has admitted to 2.7 tons of Material Unaccounted For (MUF; about 10 kilograms of plutonium are needed to make a bomb). Lack of transparency is a major issue in regard to China as well. Thus even approaching 100 per cent effective control of nuclear material appears impossible.

III.9 Conclusion

Where does all this leave the nuclear predicament? In regard to nuclear doctrine and philosophy, there is a need to begin to write the next chapter in the nuclear era. There are several areas where traditional notions might best be redefined, and George W. Bush's statements sketched an outline of many of them. One that will be increasingly important is defining the mix of offence and defence in strategic stability. Yet to date, such definition of the new equation of strategic stability remains elusive, and is likely to remain so

[30] Les Aspin, op. cit. in note 28. Aspin's paper is one of the most thoughtful government attempts to identify a post-Cold War logic and strategic agenda.

until more certainty emerges about the effectiveness of missile defence technologies. Some in the Bush administration favour significantly more robust options than those considered by the Clinton administration under which the arithmetic would leave deterrence in place in regard to Russia, and at least under the C-1 option, probably China as well.

One doctrinal issue is that of no first use of nuclear weapons. Only China now has such a declaratory policy. But the new conditions linking horizontal and vertical proliferation suggest that it might be wise for the United States to consider the idea of no first use of WMD. This formulation covers the contingency of chemical or biological warfare, leaving open the possibility of nuclear retaliation on the premise that, in moral terms, there is no difference between the use of nuclear, biological or chemical weapons. The reality is that, as a practical matter, no US president would rule out the option of a nuclear response if, for example, Saddam Hussein poisoned the water supply of New York city.

As to a new doctrine, for want of a better term, sufficient deterrence is a candidate. This concept would redefine deterrence, understood largely in conventional terms, marginalising nuclear weapons' role principally to that of deterring use by others (including WMD) and factoring in defensive systems. The underlying doctrinal assumptions are the irreversibility of the US-Russian build-down and some certainty regarding the end-state of Chinese nuclear modernisation. This problem is at the heart of the current nuclear agenda and involves the complex task of ensuring verifiable destruction of warheads, the transfer of fissile material to places of monitored storage and ending the production of fissile material. In this regard, more important than lower levels of nuclear weapons is the de-alerting of nuclear weapons – separating warheads from missiles in a credible, verifiable manner. There is a large spectrum of options in regard to state of de-alerting, ranging from dismantlement to storing warheads and missiles separately where it would take a matter of hours to mate then. Nuclear use in regard to pre-empting WMD attack or in response to WMD attack cannot be ruled out, though both are difficult to envision and would be very scenario-specific, depending on the circumstances. The current and emerging security environment argues for a US ability to reconstitute some portion of its nuclear warheads in a timely manner if deeper cuts than START III numbers are envisioned.

The answer to 'how low can you go?' is in considerable measure dependent on China. Presuming that the Russian build-down is not reversed, we are still left with two nuclear superpowers (France and Britain have made small reductions) that are reducing while China is modernising. Increasingly there is a new strategic triangular relationship with the nuclear (and strategic defensive) postures of the United States, Russia and China that will shape the nuclear future. Given that China is in the process of modernising its nuclear arsenal both quantitatively and qualitatively, there is necessarily a relationship between the floor of the US-Russian build-down and the ceiling of Chinese modernisation. If US-Russian military conflict is difficult to imagine, a US-China conflict over Taiwan is entirely plausible, and escalation into a nuclear exchange, while not a high probability, is hardly unimaginable.[31]

The United States and Russia could offer to make radical cuts beyond START III if China were first to declare its inventory of warheads and fissile material, and exchange data on the basis of a willingness to agree to freeze its current number of weapons. Or China could commit to a ceiling within an agreed range of the US-Russian build-down. A variation on this might be a trilateral or US-China negotiation setting the parameters of both US strategic defences and Chinese offensive systems.

Ballistic missile defences, as Beijing's relentless public diplomacy campaign against them underscores, are an important factor for Chinese military planners in determining their nuclear requirements. China is modernising, and will continue to modernise qualitatively, its arsenal regardless of US policy, but the quantity and structure of its modernised strategic force will be shaped in no small measure by US actions on missile defence. If Beijing refuses a floor-ceiling linkage, less is not necessarily better if the result is destabilising. But if all the declared nuclear powers pursued such a course the effect would be to marginalise nuclear weapons. In such a strategic universe, it would be possible to envision a realist case for an end state perhaps somewhere in the 600-1,200 warhead range for the United States and Russia in the 2015-2025 time frame. In the end, the debate over nuclear

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31 See Brad Roberts, 'Nuclear Multipolarity and Stability,' Institute of Defense Analysis, Alexandria, Virginia, November 2000, for a thoughtful discussion of the new dynamics of nuclear multipolarity and the centrality of Asia in shaping the nuclear strategic environment.

abolition is unnecessary, counterproductive, and a diversion from advancing the real nuclear agenda.

There are still more complicating factors in conceiving and implementing nuclear strategy, especially the emergence of missile defence technologies but also the militarisation of space. It is difficult in a democracy for a political leader to eschew developing technologies that could mean preventing potential missile attacks on its civilian population. Thus, in the light of such emerging technologies, some argue that the doctrine of Mutual Assured Destruction is immoral: how can a government justify placing its citizens at risk of attack if the means to avoid it are available? In any event, if missile defence technologies currently being developed and tested prove effective with a high degree of precision, and are deployed by the United States and perhaps by others, the strategic equation becomes ever more complex.

One plausible scenario is US-Russia offence cuts in exchange for defence limits agreement. Such an outcome would likely put pressure on Beijing to come to terms with some US missile defence architecture as the least bad alternative. Such scenarios, of course, presume technological, budgetary, and/or political constraints that might lead the United States to move in such a direction. At best, it would open up the possibility of moving to a world not of offence, but of defence. If such technologies were made available to Europe, Russia and China, what would the world look like? This new situation would pose the question of how to define strategic stability, what is the offence/defence mix, in a world where there are three or four major powers with nuclear weapons and in which missile defence systems are part of the strategic balance. This may be an even greater challenge now just over the horizon.

Chapter Four

EUROPE AND DETERRENCE

Lawrence Freedman

IV.1 Deterrence without the United States?

Debates over the Europeanisation of defence during the Cold War years invariably hinged on the nuclear question. The reason for this was straightforward. Those who believed that Western Europe could – indeed should – defend itself without the United States were required to explain why they wished to make an already dire strategic situation worse. There was an imbalance of power supposedly faced by the West as a result of the Warsaw Pact's preponderance in conventional capabilities over NATO and the Soviet Union's parity, at least, with the United States in nuclear capabilities.

To argue that the United States was not needed required the validation of at least one of the following propositions:

- The 'threat' had been grossly exaggerated and was really quite manageable. This was a constant refrain from radical critics of NATO, but it was undermined by the conspicuous Soviet military build-up of the 1970s. Furthermore, the East's unassailable conventional superiority had become a European article of faith during the 1960s debates with McNamara's Pentagon over flexible response. It was difficult for European governments to point to a hopeless inferiority when it suited them in one context but then to shift to assertions of a virtual balance in another context.
- The Europeans were ready, willing and able to build up their own conventional forces to match those of the Warsaw Pact or at least provide a form of credible resistance. Through much of the 1960s and 1970s the Europeans were struggling to sustain defence expenditures at historically modest levels and there was no prospect of any substantial increase.
- A combined British and French nuclear force could provide a realistic alternative source of deterrence against a conventional aggression. For reasons discussed below this proposition was never taken seriously.

The international system was sufficiently stable that any system of deterrence was unlikely to be severely tested, and so any deployments in the name of Europe could be made to support a political point about the growing unity of West Europeans. This was probably at least half believed by a number of European politicians but it was a high-risk proposition to uphold in public, especially if it turned out to be wrong.

All schemes developed for a European defence entity by Euro-visionaries suffered from the fact that the two European nuclear powers, Britain and France, diverged markedly on the role of national nuclear forces and the possibility of extended deterrence. In private, views were less far apart, in that Britain's private rationales tended to be more nationalistic while France's private nightmares included Europe being abandoned by the United States. It was also clear that the two countries shared an interest in protecting their nuclear forces from pressures to sacrifice them for the sake of global disarmament. None the less, they saw the political roles of these forces in quite different ways.

The possible deterrent value of their forces was not in itself in dispute. It was evident that Moscow had to accept some risk that these small forces would be used in retaliation should it decide to embark on an aggressive course. During the 1960s part of this aggression might have been to disarm them by means of pre-emptive strikes against air and missile bases but once they both acquired submarine-launched systems they could claim a second-strike capability. De Gaulle's notion that it would be sufficient to show a capacity to 'tear off an arm' to dissuade the Soviet Union from attacking France had some plausibility. Britain offered a more convoluted strategic rationale, based on 'multiple centres of decision', suggesting that the whole point of a British nuclear force was to reinforce the American deterrent by adding a further complicating factor in Soviet calculations. It was generally understood, however, that this hid a more basic insurance policy – a fall-back position in the event of an American desertion. That it would be the height of imprudence to mount direct attacks on nuclear powers while their arsenals were survivable, even if small, was rarely challenged.

The real problem lay with the rest of the Alliance. Who was to deter attacks on them? Either they created their own nuclear deterrents or they drew on those already in existence. By and large, new nuclear arsenals were to be discouraged. France deployed most of the standard pro-proliferation

arguments in its own cause – that the non-proliferation treaty was discriminatory and patronising in its assumption that only the established nuclear powers could be trusted with these weapons – and so initially was in no position to deny others the same right of nuclear development that it had insisted upon for itself. Over time this inconsistency worried the French as little as it had worried its nuclear predecessors. At any rate the critical proliferation issue in Europe was West Germany. There were few more provocative acts that Bonn could take in the eyes of any of Germany's former enemies than to follow the British and French examples. If it was not to do so, Germany had to be reassured that others were willing and able to deter on its behalf. It was doubtful that either Britain or France was really prepared to take on this responsibility. The British deployed their nuclear forces forward in Germany, but only in the context of an Anglo-American nuclear deterrent. The French would not even go that far. Their capabilities were also relatively small and so the Germans (as well as other allies who were in no position to even begin to think of their own nuclear capacity) could not accept them as reasonable alternatives to the American nuclear guarantee. The Americans had already made their nuclear commitments, admittedly at a time of apparently decisive superiority, and few in Europe were disposed to lose them.

The logic of Gaullist nuclear doctrine was that alliances of any sort were untenable in the nuclear age. This would be true whether the alliance in question was American- or French-led. The logic of the British position was that nuclear alliances were quite tenable, especially so when the deterrent was provided by a superpower. In addition, London considered itself bound by the 1958 agreements on nuclear sharing with the United States, so that it could not pass on to France what it had learnt through its privileged access to American technology (and this still remains a potential constraint). Under de Gaulle, France had at any rate been dismissive of Britain as an independent strategic actor, deriding it as no more than an extension of the United States in European affairs. Britain had reciprocated by seeing France as untrustworthy and nationalistic. It was content for France to continue to absent itself from the higher military councils of NATO, as that left Britain able to keep for itself the effective second-in-command position. In this context, for Britain the real value of an independent nuclear force was not the influence it might provide over hypothetical Soviet decisions in highly remote war contingencies, but the more immediate influence it provided

over American decision-making in all security matters. This is why it was so often presented as the centrepiece of the 'special relationship.'

The failure of other European states to follow the French lead reinforced NATO's role as the prime security provider for Western Europe. In this context the only interest in a more coherent European approach lay in the strengthening of the European 'pillar' in NATO, to convince the Americans that they were worth defending. There was a case for developing a European voice to avoid an almost complete dependence upon American strategic leadership, which was not always trusted. The most daring manifestation of this during the 1960s, however, was the Eurogroup. The underlying fear was still less that the Americans would lead their allies to catastrophe but that they would be abandoned, and so the main point of European cooperation was to hold the Atlantic Alliance together and not to push it apart.

If President Pompidou had been able to break more free from the Gaullist legacy then he might have found in Britain a willing interlocutor on the practicality of a more distinctive European defence entity, possibly even extending to nuclear cooperation. Edward Heath, Prime Minister from 1970 to 1974, was an ardent believer in European integration and had at one point in opposition mused publicly about a European deterrent force. He could not take this forward outside the framework of NATO. In addition to their positive views on the continuing primacy of NATO, Heath's successors took an increasingly negative view on the political character of the European Community. While in NATO the European position tended to be developed and expressed as a result of British-German leadership, at least until the late stages of the Cold War, in the European community the project was pushed forward by a Franco-German axis, involving first Giscard d'Estaing and Schmidt and then Mitterrand and Kohl. Throughout this period the British felt constantly sidelined and disregarded, so that by the late 1980s, with Thatcher now epitomising a much more self-confident and assertive Britain, a substantial gap had developed between British views and the rest of the European Community over its future strategic direction. To the European enthusiasts the British had no interest in anything more than a free market: to the British sceptics the Europeans were engaged in a foolhardy and probably doomed enterprise to create a new superstate.

IV.2 The United States without deterrence?

This divergence meant that any question of taking European integration further into the defence sphere was kept firmly on the back burner. Integration was largely driven through economic convergence and social harmonisation. As Germany remained unsympathetic to French defence policy it took care not to suggest that a common policy could extend much beyond foreign policy, and the difficulties experienced here in establishing common European positions did not augur well for even more ambitious exercises. There was, none the less, a discernible shift in European opinion, including British, as a result of the first years of the Reagan administration. With some notable exceptions, Europeans largely recoiled from what was seen as a combination of extreme anti-Communist rhetoric and reckless nuclear doctrines. Instead of worrying about whether they would be abandoned by the United States, they began to worry that they might instead be led into some catastrophic conflict in the name of outmoded Cold War dogmas and irresponsible nuclear theories. Symbolic of these worries were first the plans to deploy cruise and *Pershing* missiles in late 1983 and also Reagan's strategic defence initiative (SDI) of March 1983, better known as 'star wars'.

It is important to be clear that, by and large, European governments did not share the views of the protest movements that campaigned vigorously against cruise and *Pershing* missiles. They understood, for example, that rather than being inspired by American plans to fight a limited nuclear war on the Continent, their origins lay in European efforts to provide some sort of answer to the Soviet SS-20 and to warn Moscow away from any ambitious nuclear plans of its own. The fact that the intermediate-range missiles were targeted against the Soviet homeland undermined any notion that these could be credible means of fighting a limited nuclear war. Official Europe saw the Reagan administration as a public relations disaster, unable to grasp that its bellicose utterances and disregard of arms control cast doubt on whether it was mature enough to lead the Alliance. It was feeding the anti-nuclear movement, which was in practice already anti-American, and this made it difficult for Alliance governments to provide official support for American policy. The Alliance was put under great strain. The remedy, they argued, was to go back to the 'deterrence and détente' formula of the 1960s Harmel Report: assert Western interests in containment but not conflict and

demonstrate a readiness to explore decent relations with the East via arms control.

The deviation of the 'Reaganauts' from the NATO norm was epitomised by star wars as much as cruise missiles. Even Mrs Thatcher, who was well disposed towards Reagan and sufficiently impressed by American technological capacity to be inclined to give star wars the benefit of the doubt, took fright at the implications of Reagan's statement about his preference for protecting Americans rather than avenging them. Deterrence theory depended at one level on the credibility of instinctive nuclear vengeance, and constant American assertions that they saw serious moral as well as political problems with nuclear retaliation threatened to subvert NATO doctrine. Mrs Thatcher worked hard to get Reagan to tone down his language and reassert traditional American positions. For Britain and France there was a further problem in that if by some chance star wars could be made to work then the credibility of their individual nuclear deterrents would suffer.

Out of this came the 'revival' of the Western European Union as a means of developing a reasonably coordinated European strategic perspective on the big issues of the day to be compared and contrasted with that of the United States. During the mid-1980s it had some influence, in formulating a response to SDI and then to Gorbachev, but by the end of the decade the scale of the upheavals in the European security system were creating new tensions among European countries. Prime Minister Thatcher, for example, although one of the first to recognise Gorbachev's potential and assert her readiness to do business with him, was equally convinced of the need to maintain an orthodox deterrence posture. West Germany, by contrast, could see that all the Cold War assumptions would soon need to be reappraised and, once a US-Soviet agreement had been reached to remove all cruise and *Pershing* (and SS-20s) from Europe, saw little point in moving to new types of short-range forces that could only hit those parts of Central and Eastern Europe that were already moving away from the Soviet sphere of influence. As the Cold War came to an end, deterrence was a divisive issue within Europe, and was leading to one of the most substantial Anglo-German spats for some time. It then ended so definitively, with the reunification of Germany, that the argument soon petered out, with the British conceding.

Nor could Mrs Thatcher find much support for her view that the new unified Germany might now need to be deterred (in economic more than military

terms). Mitterrand might have shared some of her concerns but his instinct was to move to a closer union to entangle Germany in a network of commitments and interdependencies, while Thatcher's instincts were the opposite. A combination of the distractions of the Gulf crisis and then her fall from power in November 1990 took her more dramatic concerns out of the European political debate, although the renewed Franco-German drive for European integration aggravated the divergence between the British and the rest.

IV.3 The impact of the Gulf crisis

The immediate impact of the end of the Cold War on strategic thought was remarkably modest, as if all that was going on was a re-balancing of power within Europe. As the Soviet bloc shrank and Germany was reunified, NATO no longer had to worry about conventional inferiority but, at least until the failed Moscow coup of August 1991, the threat was still posed in terms of a resurgent Soviet Union. It was the old problem only now much easier to solve. The potential adversary was much smaller and its forces were distant: if they started to grow and move closer there would be ample warning time. So it was possible to cut back conventional forces but they would be configured largely as before. There was no need to cling to the prospect of nuclear first-use. Conventional victory should always be in NATO's grasp, so it would be the opponent who would have to contemplate nuclear escalation. As if on cue, Soviet generals, in their first attempts to make doctrinal sense of their new circumstances, accepted the role reversal and discarded past pledges of no-first-use. It was now in NATO's interest to marginalise nuclear weapons, and so they declared them weapons of last resort. Only France, still adhering to a rather purist view of deterrence, reserved its position.

When President Bush (senior) proclaimed a new world order in September 1990, in the context of the developing Gulf crisis, in one important respect he was still influenced by old thinking. The concept assumed that the Soviet Union would remain a serious player in international affairs, except that instead of a deadly rival to the United States it could be its partner in ensuring that members of the United Nations followed the dictates of international law and did not follow Iraq's example and invade their neighbours. The denouement of the Gulf crisis was also perfectly compre-

hensible in terms of classical balance of power theory. At stake were territory, control of vital resources and the principle of non-aggression. The other classical principle of non-interference in internal affairs was also in evidence, as the anti-Iraq coalition was put together on the basis of a narrow consensus, which excluded the right to remove the government in Baghdad.

The Gulf War turned out to be one-sided, but that was not how it appeared in anticipation, and it was conducted in terms of high strategy, with text-book air strikes followed by staff college manoeuvres. The nuclear dimension was crucial in two respects. First, the crisis was as much bound up with Iraq's drive to acquire nuclear, along with chemical and biological, weapons as it was with the occupation of Kuwait. It was the cumulative evidence of this drive, and embarrassing disclosures about the culpability of Western countries in abetting it, that led to the rapid deterioration in relations with Iraq during the first months of 1990 and encouraged Western leaders in their efforts to deal decisively with Saddam Hussein. As Saddam had shown himself ready to use chemical weapons, against both the Iranians and Kurds, and had also mounted missile attacks against Iranian cities, it was always likely that mass terror would be part of Iraqi strategy.

In terms of deterrence theory the Gulf crisis and war provided a significant case study. It had nothing to say about deterrence in conditions of parity but did offer indications about how to deter unusually reckless states with access to serious means of destruction. The question posed prior to hostilities was how to stop Iraq using chemical weapons either on the battlefield or against Israel and Saudi Arabia. One possible answer was that nuclear threats might be sufficient for this purpose. The British took the view that past negative security guarantees, that is, promises made (during the 1978 UN Special Session on Disarmament) not to use nuclear weapons against non-nuclear states, ruled this out. They assumed that a combination of defensive measures, including protective suits for troops, and overall conventional superiority, meant that the allies could respond as they wished to further outrages without having to perpetrate outrages of their own. Just before the start of hostilities this was made explicit. The French took a similar view. In private the Americans had no intention of resorting to nuclear use, but in public they remained ambiguous, on the grounds that it was best to keep Saddam guessing. The most specific deterrent threat, made by Secretary of State James Baker to Iraq's Foreign Minister Tariq Aziz on 9 January 1991, was that if chemical weapons were used then the United

States would ensure that Saddam's regime was toppled. In addition it was made clear to Iraqi commanders in the field that they would be considered personally responsible for the consequences of chemical use.

As chemical weapons were not used by Iraq then deterrence of some sort worked. The Iraqis themselves indicated that they were influenced by the prospect of nuclear retaliation, although as much from Israel as from the United States. There may have been an element of *ex post facto* rationalisation here. After all, it suited Iraq to present its failure to use its chemical arsenal as a result of high strategy, exalting its position as a country that had to be deterred by the most powerful forces of the most powerful state, rather than because its local commanders were disoriented and frightened or because its means of delivery were unsuitable and in disarray. Certainly, Israeli studies of the mechanics of using nuclear weapons to deter chemical attacks indicated a number of problems, in addition to the specifically Israeli one of acknowledging a hitherto covert nuclear status, including what to do about poorly executed chemical attacks that failed to make any impact. The conclusion was that there really was no alternative but to keep the enemy guessing: any attempt to define with precision the circumstances in which a nuclear counter-strike would be launched would generate great controversy and send confusing signals. When NATO later considered whether it should make an explicit link between chemical or biological attacks and nuclear first use, it came to the same conclusion. Until the scale and intensity of any attack was understood it was difficult to be sure of the appropriate response, and in most cases sufficient retribution could be exacted by conventional means, but it probably did no harm if those contemplating mounting such attacks took account of the possibility that they just might lead to nuclear retaliation.

Iraq was not completely deterred during *Desert Storm*. *Scud* missiles, albeit with conventional warheads, were launched against Saudi Arabia and Israel, oil wells were set on fire and oil pipelines were opened into the sea. The use of oil as an environmental weapon was unpleasant but, in the end, manageable. The *Scud* attacks were in themselves limited in their physical impact but psychologically they did considerable damage and required a variety of extraordinary exertions from the coalition. One response was to deploy *Patriots* for the purposes of missile defence. As with the *Scuds* they were supposed to stop, these also had a psychological effect, in this case calming, and disproportionate to their physical achievements. The net result of this

episode was to draw attention to the potential influence of small, and not necessarily very destructive, attacks against civilian populations and to pose the issues of active defence and/or deterrence through punishment in a new light.

IV.4 Asymmetric strategies

The combination of a convincing conventional battlefield victory and some nasty unconventional scares in the Gulf shaped Western perceptions of the likely course of major war for the rest of the 1990s. With advances in information technology reinforcing Western conventional superiority, and talk of a 'revolution in military affairs', NATO countries appeared to be acquiring an unassailable battlefield advantage. Saddam might even be excused for miscalculating Western strength, but after his resounding defeat it was hard to see any other would-be aggressor making the same mistake again. The very same logic that had prompted the Soviet generals to turn in 1990 to nuclear deterrence as their best option against an ascendant NATO was likely to prompt other potential adversaries to look at forms of unconventional war directed against civil society, from terrorism to weapons of mass destruction, to undermine the West's will to prosecute any war.

Such 'asymmetric' strategies loomed increasingly large in American thinking as the 1990s progressed, and dominated considerations of contingencies involving the 'rogue' states – Iraq, Iran, North Korea – and even China. The inclination of these and other 'rogues' as they pursued their regional ambitions would be to deter the West from intervening by raising the entry price to unacceptable levels. This led to American proposals for counter-proliferation strategies, normally interpreted as forms of pre-emption, and later to missile defences. We will return later to the missile defence issue. For the moment it is important only to note its origins in what might be called residual big-war/high-strategy scenarios.

These big-war/high-strategy scenarios continued to dominate American military thinking into the twenty-first century, but not so much European. There were two reasons for this. The first and most important was the fragmentation of the Soviet Union at the end of 1991. This was followed by economic upheavals and the inner decay of the Russian Army, to the point where it was almost risible to continue to plan for big-war scenarios

involving a revitalised Russia. The Americans might be able to look at China as a potential replacement 'big power' threat, but the Europeans tended to see China as following a cautious path and, equally important, far away and not threatening any of their vital interests. The Russian problem shifted within a few years from one of excessive strength to one of excessive weakness. There were real concerns about nuclear systems being imperfectly maintained and guarded, raising a variety of spectres: unauthorised missile launches, terrorists or local warlords seizing weapons, the spread of radiation as a result of accidents, including the corrosion of discarded nuclear submarines, nuclear materials or even know-how (in the form of impoverished and disgruntled scientists) being secreted abroad to work for rogue states.

These various spectres stimulated two types of responses from the West. The first was a series of measures of financial and technical support to help Russia manage its contracting nuclear establishment. The second was a determination to get as many nuclear warheads as possible out of the system. The focus here was less on the larger strategic weapons covered by formal arms control agreements but rather on the smaller 'tactical' systems, which seemed much more likely to fall into the wrong hands. Rather than wait for negotiated arms control, the major powers set in motion a series of unilateral, and largely reciprocated, efforts to remove nuclear weapons from general-purpose forces at sea, on land and in the air. Britain and France joined in this process, so that their submarine-launched long-range missiles were left as the essential core of their nuclear forces. They continued to resist becoming part of formal strategic arms control, although somewhat ironically Ukraine, Belarus and Kazakhstan did sign and ratify the 1972 ABM Treaty in the process of divesting themselves of those nuclear weapons and facilities that had been left on their territories when the Soviet Union turned into the Commonwealth of Independent States. These various measures had the effect of confirming the Western nuclear forces as last-resort systems for increasingly unlikely contingencies.

IV.5 Weak states and low strategy

Meanwhile a different sort of conflict was starting to capture the Western strategic imagination. The stimulus here came largely from the Yugoslav Wars of Dissolution but also from conflicts elsewhere in Africa and Asia.

Their unifying feature was that they took the form of civil wars and saw an intermingling of the civilian and military spheres, with the fighting often conducted by militias and against local people. While the problems of how to cope with strong states produced classical 'high strategy', the problems posed by weak states falling apart called for 'low strategy.' High strategy connotes the forming of alliance and great power conflicts, and involves preparations for decisive battles against well-armed opponents. It raises questions of deterrence in terms both of avoiding wars altogether and of preventing the use of particularly noxious and destructive weapons during the course of a war.

Low strategy involves using armed forces to alleviate distress, keep warring factions apart, introduce a modicum of law and order and support those attempting to revive economic life and reconstruct central government. It is likely to involve low-intensity operations, often akin to high-intensity policing. The distinction is by no means clear-cut, and, as the Bosnian and then Kosovar wars demonstrated, high strategy and high-intensity operations can soon come into play even when the situation appears to call for no more than low strategy. The crossover point might be the move beyond consensual operations, wherein the belligerents accept that external forces will interpose themselves as peacekeepers between them, or work around them to provide humanitarian relief, to non-consensual operations, wherein one particular belligerent requires the imposition of exceptional restraints and even defeat. In such cases issues of deterrence also arise, although as part of a much more complex politico-military process then ever envisaged in the sort of systematic deterrence theory developed for superpower nuclear relations.

During the 1990s the United States armed forces showed themselves to be uncomfortable with low strategy. Their experience of intervening in civil wars was unhappy, notably with Vietnam and Lebanon. There was no desire to get caught in further quagmires, with forces bogged down for indefinite periods in the middle of an inconclusive conflict. Nor were they interested in what were derisively called 'constabulary duties'. The American military wanted to prepare for big wars that could be fought to a decisive conclusion. Their political masters tended to the view that the American people would only accept casualties in war if the stakes were palpably high. It might be added that when the Americans found themselves engaged in peace support operations they displayed no particular aptitude, with deployments domi-

nated more by issues of force protection than engagement with the local society. Thus, American forces were hastily withdrawn from Somalia in 1994 just as they had been from Beirut a decade earlier.

By contrast, and possibly because of their traditions of imperial policing, the British and French did demonstrate an aptitude for this sort of operation. In Bosnia they found themselves working closely together in UNPROFOR, demonstrating tactical competence although with limited strategic success. They also worked closely with other European countries, including the Spanish, Dutch and Italians and latterly the Germans, but they generally considered themselves to be in a class apart in terms of their military capabilities and prowess. When announcing the modernisation of the French armed forces President Chirac paid the British armed forces the surprising accolade of citing them as a model. The British Strategic Defence Review of 1998 explicitly looked to humanitarian interventions as setting the force requirements for the future, while being careful not to rule out larger, *Desert Storm*-type operations.

The problem was that, to the extent that these interventions did demand big war capabilities, the Europeans were hard-pressed to provide them. This was particularly true with air power. In an age of precision weapons this offered the most obvious area of comparative advantage but when it came to mounting major air campaigns, against Serbs in 1995 and 1999 as well as Iraq in 1991, Europeans could provide at best about a quarter of the total and were deficient in key capabilities. So to the extent that any conventional deterring or, as was more often the case, coercing needed to be done, any Western operation was highly dependent upon the United States. From the European perspective this had two unfortunate consequences. First, it limited their options if the Americans did not want to be involved. Second, to the extent that they did, the Americans tended to recast conflicts in terms of high rather than low strategy. That is, the political context tended to get simplified, so that the enemy could be viewed with clarity, and the focus became one of influencing the decisions of political leaders rather than shaping the complex struggle for territory on the ground. The Americans could just about be persuaded to provide forces for consensual post-conflict peacekeeping activities but they were highly reluctant to commit ground forces into what was described during the Kosovo war as a 'non-permissive environment.'

This had important implications for debates on European security. During the Cold War years the defence debate was framed in terms of high strategy. American power balanced Soviet power through the medium of NATO. Only the French claimed to believe that the balancing act could be sustained without the Americans, and it is not too unfair to suggest that this position was easier to proclaim on the safe assumption that it would never be adopted by anybody else. European positions on the great issues of deterrence were taken in the light of Alliance politics. The Germans sought reassurance that American decision-making took their needs fully into account, the British sought to shape American decision-making, while the French sought to assert their independence from American decision-making.

During the post-Cold War years the European defence debate has increasingly been framed in terms of low strategy. The institutional implications of this have been addressed regularly since 1990. At the start of this period it was argued that, in the absence of a Warsaw Pact threat, NATO could declare itself obsolete and disband. The Gulf War was not fought by NATO but the coalition clearly benefited from the multinational understandings and shared procedures developed within NATO, and so it seemed to retain a functional benefit that it would be unwise to relinquish. In addition, NATO remained the main means of exerting American influence over European affairs. When enlargement was first mooted and then implemented it was implied that NATO was becoming less of an alliance and more of a 'security-community', a means by which the Czechs, Hungarians and Poles could demonstrate their new association with the West, although this benign view never convinced Moscow and was undermined when NATO fought as an alliance in the spring of 1999, days after the first enlargement had been completed. For the reasons already mentioned, any conflict that required a major air campaign could only be handled by NATO.

IV.6 The European Security and Defence Policy

The European Union's attempts to present itself as a security provider fared less well. Britain was out of sympathy with the trajectory set by Kohl, Mitterrand and Delors, when President of the Commission, and without Britain's enthusiastic involvement there could be no credible defence initiative. Britain's wariness was reinforced by the lack of European cohesion over the Gulf. France committed forces but was forever launching

its own peace initiatives, while Germany appeared prohibited by its Constitution from committing forces and seemed to view the whole enterprise with deep misgivings. The European Parliament regularly disgraced itself in failing to provide robust backing to the coalition. London and Paris conducted their diplomacy largely as permanent members of the Security Council rather than members of the European Council of Ministers. Matters barely improved over Yugoslavia. When the crisis broke in June 1991 the Americans were told that this was a European show and they need not bother themselves, a message they were happy to receive. European efforts to broker a deal were constantly thwarted, not least because they could not be backed up by credible coercive threats. Peacekeeping forces were inserted into an ongoing conflict in Bosnia. They did help in food distribution but atrocities continued despite their presence. Forces deployed in the form of small and lightly-armed groups appeared not so much as a reminder to the Serbs of more robust action to come as hostages whose vulnerability was likely to deter more robust action. By 1995 the British and French were moving to reorganise their forces to play a much more effective role on the ground, but this was overshadowed by the combined impact on the Serbs of a Croatian counter-offensive and American airpower. By now the European Union had been sidelined, with the key roles being taken by the UN, NATO and the 'Contact Group.'

To the extent that provision had been made for the development of a distinctively European approach to the exigencies of the post-Cold War world, this had come through the Western European Union (WEU). As set out in 1992, the Petersberg tasks – humanitarian intervention, evacuation, peacekeeping and crisis management – almost defined low strategy. WEU, however, had no capacity of its own to mount any operations, and attempts to give it a role tended to the farcical or symbolic.

In 1998 a new impetus was given to proposals to bring defence more into the European Union. The key shift was in British perceptions of the issue. The new Labour government was anxious to demonstrate its European credentials but unable to move forward quickly on a single currency. Defence was an area where it could expect to take a leading role. More important, there was growing concern in London that the United States was becoming increasingly reluctant to intervene, or at least was looking for a division of labour whereby it would provide the big war airpower while the Europeans concentrated on more hazardous ground operations. These fears

resulted to some extent from the attempts to manage the developing Kosovo crisis during 1998. The experience of the 1999 war demonstrated that it was important not to under-estimate American resourcefulness and staying power. None the less, Washington continued to recoil from a ground war and this limited the Alliance's freedom of strategic manoeuvre.

In addition, Kosovo demonstrated the limits to conventional air power as a deterrent. There were two possible reasons why Milosevic was not impressed by NATO's explicit threats of air strikes. The first was that the business of the Serbs in pushing Albanians out of Kosovo was unlikely to be impeded by air strikes, as it could be conducted in small groups operating from trucks rather than by highly visible armoured columns. It was also evident from the statements made by NATO leaders that there were no developed plans for a ground campaign and little interest in commissioning any. Second, both the 1995 *Deliberate Force* operation over Bosnia and the 1998 *Desert Fox* operation over Iraq had been relatively short and barely punitive. Milosevic may have calculated that something similar could be survived and by the time the allies called it a day, the process of ethnic cleansing would be complete. Whether the experience of *Allied Force* will change future perceptions is difficult to tell. The surprising tenacity of NATO can be explained by reference to the enormity of the humanitarian crime they faced in the spring of 1999. Moreover, the lack of a ground campaign still made it very difficult to bring matters to a conclusion, and in the end it was the growing power of the resurgent KLA that provided the critical indicator of Serb failure to meet a core strategic objective. NATO countries will probably not want to leave themselves so bereft of more decisive options in the future.

Put these various conclusions together and out comes an argument for developing a European capability that can make a serious impact on crisis management in and around Europe should the Americans choose not to get involved at all or, if they do, confine themselves to airpower. Without such a capability there is a risk that the European Union will find itself caught in some dangerous bluffing during the course of future crises, or will not be believed even when not bluffing (which is what happened to NATO in March 1999). Out of these conclusions have emerged the various proposals, eventually ratified by the European Union's Nice summit, for a European Rapid Reaction Force.

This initiative aroused some controversy in Britain, largely because of claims from the Conservative opposition that it reflected an attempt to displace NATO from its role as Europe's leading security provider. Occasional statements from President Chirac gave support to this critique. Prime Minister Tony Blair's response stressed that the idea was not to demonstrate independence from the United States but only to take steps to ensure that Europe was able to operate alone if necessary ('separable but not separate', in the approved phraseology). The debate encouraged the view that there was a dichotomy between the small-war/low-strategy functions, appropriate for the EU, and the big-war/high-strategy functions that it would not and could not take over from NATO. This view is likely to be reinforced by the arrival of President Bush (junior) to the White House and security policy becoming dominated by two men – Richard Cheney and Colin Powell – closely associated with the view that the proper purpose of American forces is to prepare for and where necessary fight big wars and that other conflicts are distractions.

IV.7 The future of European nuclear deterrence

All of this may seem somewhat beside the point when considering the future of nuclear forces, except that it helps explain the almost total lack of public debate on this issue in European countries let alone any suggestion that this might lead to a combined force, acting on behalf of the rest of Europe – the sort of idea that had currency in the 1960s and 1970s. If this had been taken to be the implication of the force – the ultimate in high strategy – then no British government would have dared let the CESDP project get so far. Enough trouble has been caused by suspicion that the intelligence sharing with the United States – the other great pillar of the 'special relationship' – might be jeopardised if Washington started to believe that information so gained might get to the wrong people or be used to pursue inappropriate policies. The benign neglect of the nuclear issue has been a necessary, though by no means sufficient, condition for progress on European defence cooperation.

British and French bilateral discussions on nuclear matters are far more intense now than they ever were during the Cold War. These discussions cover a range of issues, from targeting to submarine deployments to arms control, but they are largely geared to getting whatever limited efficiencies

might be obtained without falling foul of the terms of US-UK nuclear cooperation, or in defending the force from external political challenges. These are as likely to come from allies as from adversaries, and take the form of demands for disarmament. This defensive instinct explains why even these modest forms of nuclear cooperation are sustained away from the public eye and are geared to keeping matters that way. They are about mutual support so as to retain a devastating capability under national control. Britain and France are not keen for them to be on a negotiating table or even, in the context of CESDP, be put into the purview of the Council of Ministers.

In what circumstances might the nuclear issue acquire greater salience in the future, and how might this effect wider security policies? The first point to make is that it is no longer the case that the lack of public interest in the issue is simply a result of a lack of information. In its 1998 Strategic Defence Review, for example, the Labour government revealed far more details on the nuclear force than had ever been revealed before yet this attracted virtually no media interest at all. One reason for this is that in Britain, as in France, there is now a consensus among the political élite supporting the nuclear force and so it is not a source of public controversy. Another reason is that there are no major expenditure decisions and so, at least for the moment, the priority of the nuclear force as against other forms of defence, or wider public, expenditure does not need to be asserted. While London and Paris have held on to their core nuclear capabilities they have been prepared to discard peripheral items such as short-range tactical systems.

It is possible that progress in disarmament negotiations might lead to questions about whether these forces might be reduced or eliminated altogether as a grand abolitionist gesture. By and large London and Paris have been content for Washington and Moscow to carry the burden of explaining the slow pace of disarmament and demonstrating that they have made some effort to keep their part of the NPT bargain. It may be hard to explain exactly what security function the nuclear forces still perform but by the same token it is hard to describe the benign consequences of their withdrawal, except to place great hope in the power of a good example. At some point following a breakthrough in START the differential between the size of the European arsenals and those of Russia and the United States would cause comment and lead to calls for their direct inclusion in future

rounds of talks, but even is this did lead to participation in arms control it would not necessarily have major impact on force levels.

A catastrophic nuclear event of some sort, from a mishap at a Russian facility to a nuclear exchange involving Pakistan and India, would undoubtedly push the risks involved in sustaining national nuclear capabilities to the centre of public debate. At the start of 2001, questions related to the toxicity of depleted uranium shells as used during the Bosnian and Kosovar wars caused a stir when they were linked to cancer among those exposed to sites close to where these munitions had landed. Given that not only was the link between the illness and the shells uncertain, but the numbers involved were no where near those likely to be affected by the most modest nuclear event, this gives some indication of the speed with which an issue can establish itself and catch governments unawares. The British and French governments hold on to rationales for their nuclear forces that are vague and imprecise, and ministers could find themselves under severe pressure when asked to pit these rationales against contrary arguments related to public safety or risking an arms race or a provocation.

Deterrence will have to be at the heart of any rationales. There is no suggestion that these weapons are to be used for offensive purposes. A prestige rationale might be advanced, but for countries such as France and Britain the time has passed when they need to preserve their international standing through a nuclear status. The traditional deterrence argument that referred to the need to balance the superior conventional capabilities of the likely adversary is even less credible when the NATO countries collectively account for the bulk of the world's regular forces. The residual deterrence argument is therefore the need to deter other nuclear powers, of which Russia remains the closest to home, and possible future nuclear powers, such as Iran or Iraq.

One question is whether these arsenals might be of value in deterring the non-nuclear capabilities of so-called rogue states. Acts of terrorism are always possible, especially from Middle Eastern militants, in response to what might be perceived to be iniquitous Western policy, but this is quite different from large-scale nuclear or chemical attacks. Milosevic made no evident attempt to target civilian life in the West during the Kosovo War, and the contingencies which might prompt others to do so remain hard to identify unless things go badly wrong with Russia. West Europeans are

within range of far more countries' missiles than the United States, yet there is little clamour for any sort of ballistic missile defence. One reason for this may be nervousness about the 'rogue state' concept, which the United States has now also dropped. It risks stereotyping and, by suggesting that some states are beyond reasonable hope, precludes political measures designed to blunt their aggressiveness and bring them in out of the cold. Another is that the technical demands on ballistic missile defence for Europe are even higher than those for the United States, and even there they seem demanding – and expensive – enough. Even if a technical fix were possible, the proximity of many European countries to zones of conflict means that it is not hard to imagine a variety of methods by which terrible things might be done to their cities without missile attacks.

The association of ballistic missile defence with the arms races of the Cold War and its prohibition under the 1972 ABM Treaty meant that an American programme could still be presented as an attempt to gain complete superiority over all comers and even create conditions for a first-strike capability. The Clinton administration denied any such intention with its National Missile Defence programme, and the modesty of its aim as well as its poor performance in testing, calmed the more alarmist fears. West European governments understood that it would be unwise to insist that the Americans remained vulnerable when they had means of doing something about it, and that old fears about decoupling were irrelevant. Their main concern was that the United States would unilaterally abrogate the ABM Treaty, thereby creating a crisis with Russia at a time when Russia was already feeling put upon as a result of NATO enlargement and the dismissal of its complaints over Western policy in the Gulf and the Balkans.

The enthusiasm of the 2001 Bush administration for NMD means that the issue has to be managed, but this will not depend upon its relevance for deterrence. The most that can be claimed is that in some future crisis the United States will feel freer to take a tough line than it might otherwise have done because of an extra degree of security that it can cope with missile attacks, although how substantial that degree will depend on the President's belief that the system will work as advertised during its first real test, and that other means of harming Americans in substantial numbers cannot be found. As most contingencies involve the question of whether the United States is prepared to intervene in conflicts in regions other than its own, at issue will be whether the United States is deterred rather than whether it can

deter. It is arguable that unless the stakes are very high and the commitments are firmly established Washington will be cautious in the face of threats at levels much lower than missiles with nuclear or chemical warheads. If the United States is emboldened through the construction of a ballistic missile defence of some sort then the major European concern might be that they would bear the brunt of any retaliation. There is no reason to suppose that the United States would disregard concerns of this sort. The risk, if the Europeans press such concerns too vigorously, is that Washington will respond with inherently implausible promises of extending the defensive shield to them.

The European interest is probably best served by treating NMD as a matter of domestic American politics, geared to the threat of a future Congressional investigation after some horrific incident when the question is posed why the proper precautions were not taken even though the technology and resources were available. In these terms the issue is quite manageable in Alliance politics and avoids the danger of the question of European cooperation in defence becoming tangled up with a row over the highest-profile American military programme. The more the case is developed according to specific scenarios the more problematic it will seem and the greater the risk that divergences in strategic perspectives across the Atlantic will be exposed. European concerns will be allayed if a way can be found to gain Russian compliance. This is nothing to do with strategy, high or low, other than a general desire to avoid aggravating relations that are already quite tense.

To the extent, however, that the claims made by NMD advocates about the dangers of the proliferation of ballistic missiles have to be taken seriously then the question of nuclear deterrence will be raised. It is one thing for the Americans to accept the costs and uncertainties of constructing a doubtful ballistic missile defence but quite another for West Europeans to even begin to contemplate something similar, with or without American help, when faced with a more substantial threat posed by shorter-range missiles. To explain why it is possible to be secure without defences, they are almost obliged to point to deterrence, arguing that 'rogues' would not be so irrational as to discount the prospect of devastating retaliation if they start unleashing weapons against Western centres of population.

European governments recognise that there is no point in arguing that the Americans must remain vulnerable as their allies for the sake of solidarity. The old 'decoupling' argument was that the Americans would not act on Europe's behalf because they calculated risks quite differently, and saw no reason to accept the dangers of threatening nuclear responses merely to deter events that did not affect them directly. If the Americans were less vulnerable then, in principle, deterrence would be more, not less, credible. A greater vulnerability could possibly mean that the Europeans become hostages for American behaviour – the sort of concern that was evident during the early Reagan years. However, the new risk of decoupling has nothing to do with comparative vulnerability and more to do with whether, as the level of threat to Europe is reduced, the United States considers its vital interests to be so engaged. Would a CBW outrage in a European city arising out of what had appeared to be a low-intensity EU operation in the Mediterranean area have the same implications for Washington as a Warsaw Pact invasion? Even if the Americans wanted to help deter such events do they know how to do so in advance?

The Europeans have taken the view that they do not wish to claim to be deterring non-nuclear events with nuclear forces, but the more they start to consider their security options independently of the United States, and have in front of them the issue of destructive attacks by delinquent states, the more they may find the rationale for the national nuclear forces given an uncomfortable scrutiny. The old question of who is to deter on behalf of the non-nuclear European states has not gone away but just, for the moment, lost salience. It is not yet clear that there are any better new answers than the old answers, which are highly dependent upon American extended deterrence. It has for some time been the case that the best arguments for national forces are precautionary, presenting them not so much as geared to current and well-defined contingencies but rather as prudent preparations for dangerous future contingencies that may be implausible and certainly cannot be defined with any certainty. It is not an argument that lends itself to intensive public debate, which may be one reason why the essence of European nuclear policy is to avoid such a debate.

Chapter Five

RUSSIA AND THE FUTURE OF NUCLEAR POLICY

Dmitri Trenin

In 1986, Mikhail Gorbachev, then General Secretary of the Soviet Communist Party, unveiled, with all the usual pomp, a grandiose initiative aimed at ridding the world of nuclear weapons by the end of the millennium. At that time this was regarded as another Soviet propaganda move, but soon Gorbachev became a convert to the idea of deep reductions in nuclear arms, ultimately leading to the stated goal. In 2000, Vladimir Putin, Russia's president, was also talking about deep reductions in nuclear weapons stockpiles. Putin, however, proceeds from a very different world-view and his proposals are guided by an entirely different set of factors. Most important, the idea of ridding the world of nuclear arms has been roundly rejected. Russia has come to appreciate the Bomb.

What are the reasons for that turnaround, and what are their implications? What kind of nuclear power will Russia be, and equipped with what policy and doctrine? In this context, how enlightening and how forward-looking are the Russian foreign, security and defence blueprints adopted in 2000? What is the state of the nation's nuclear arsenal, and in what direction is it likely to change? How does Russia relate, in terms of both maintaining balance and stability and the nature of relations, to the other established nuclear powers? How does it approach the new claimants to that status? How does Russia see the post-Cold War era arms control and the process of WMD proliferation? Last but not least, as the European Union becomes a more coherent whole, including in terms of security and defence policy, how will Russia relate to Europe's potential nuclear dimension?

The essay that follows will attempt to address all these questions, with the humble understanding that there is still too much uncertainty to allow definite answers to be given to at least some of them.

V. 1 The state of the Russian nuclear arsenal

A decade after the USSR's demise, the Russian nuclear arsenal, still impressive, is fast ageing and dwindling in size – a wasting asset, in the words of one military commentator.[1] It still numbers just under 1,200 ICBMs, SLBMs and heavy bombers, with some 6,000 warheads.[2] By 1 January 2003, pursuant to the START II treaty, the number of Russian warheads will be reduced to 3,500. This huge Soviet legacy must be compared with the minuscule size of Moscow's financial resources. The defence budget for 2001 is around 300 billion roubles, or just under $11 billion.[3] The lack of adequate funding for building new missiles[4] and a partial loss of production assets located in Ukraine have left Moscow with only one option – extending the service life of weapons, most of which were built in the 1980s. This extension, however, has its limits. Neither START II levels nor even the much lower levels agreed in 1997 at Helsinki (2,000-2,500 warheads) are affordable for Russia. Thus, irrespective of US-Russian agreements, the Russian nuclear arsenal will steadily decline in the foreseeable future. According to one estimate, by 2008 (by which time all other ICBMs will have been phased out), it might consist of about 1,300 warheads deployed on 300 *Topol*-M ICBMs, 7 *Delta*-IV SSBNs and some 80 heavy bombers.[5]

The current strategic triad is likely to be preserved, but the relative size of its components could change considerably. At this time, the Strategic Rocket Force (SRF) accounts for 60 per cent of all weapons, the sea-based element about 30 per cent and the air-based one the remaining 10 per cent. The Russian General Staff plans to cut the ICBM force's share to as little as

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1 Mikhail Timofeev, 'Sokraschenie RVSN objektivno I neizbezhno', *Nezavisimoe Voennoe Obozrenie*, 2000, no. 27, p. 1.

2 *The Military Balance 2000-2001*, p. 120.

3 Interview with Colonel General Andrei Nikolaev, chairman of the Defence Affairs Committee of the Russian State Duma. *Krasnaya Zvezda*, 16 December 2000, p. 3. In purchasing parity terms, the actual amount is about twice as much.

4 The share of nuclear forces in the defense budget has declined from 18 per cent in 1999 to 15 per cent in 2000. The trend is likely to continue. See *Nezavisimoe Voennoe Obozrenie*, 2000, no. 26, p. 3.

5 Anatoly Dyakov, Timur Kadyshev and Pavel Podvig, 'Yadernyy paritet in natsionalnaya bezopasnost v novykh usloviyakh', *PIR Center Paper* no. 14, p. 44.

10-15 per cent of the total.[6] Whether this plan will be accepted and implemented is hard to tell, but the forthcoming deep reduction in the number of nuclear weapons has already resulted in a major reorganisation. Between 2003 and 2006, the SRF will probably be abolished as an independent armed service, a status it has enjoyed since 1960, and become a branch which could eventually be absorbed by the Air Force. The five rocket armies will be phased out, and only a couple of the 19 rocket divisions will remain.

Although the nuclear forces are said to be the best preserved and most combat-ready part of the Soviet military legacy, funding is clearly inadequate. While some 95 per cent of ICBMs are reported to be combat-ready, very few submarines put to sea. The August 2000 sinking of the *Kursk*, a nuclear attack submarine, has become a symbol of the problems plaguing the Russian Navy. The fleet of heavy bombers which nearly became extinct in the early 1990s is only being assembled just now through the purchases of Tu-160 aircraft from Ukraine and some resumed indigenous production.

The mainstay of Russia's future ICBM arsenal is the single-warhead *Topol*-M (SS-27). Its first two regiments of 10 missiles each were deployed in 1998 and 1999, and the 'normal' production rate in the next decade was initially set at 20. In 2000, however, only 6 missiles were produced. In addition, the older road-mobile *Topol* (SS-25) missile is being refurbished.

The successor to the Soviet-era SLBMs, the R-39UTTKh (SS-NX-28), was cancelled after test failures, and no new missile has been produced. This led to the suspension of work on the new SSBN, *Yuri Dolgoruky*, begun in 1996. The new sea-based weapon system is unlikely to be deployed before the end of the decade.

The air component of the Russian strategic nuclear triad is made up of the relatively recently produced Tu-160 and Tu-95 bombers, which are likely to stay in service until 2010 and beyond.

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[6] See Alexei Arbatov, 'Stavka na yadernye sily', *Nezavisimoe Voennoe Obozrenie*, 2000, no. 48, p. 4. Arbatov himself clearly favours the ICBMs and would consider dropping the other two elements of the triad altogether.

The command and control system of the Russian strategic nuclear force has to rely on an infrastructure which has shrunk and is in need of repair, modernisation or replacement. The land-based early warning system has lost several long-range radars which are now located in the newly independent states. Only one new radar has been built, in Belarus. The fleet of space satellites has been drastically reduced for financial reasons.[7] A new generation of early warning satellites, however, is already in the pipeline.[8]

The numerical decline of Russian strategic nuclear forces will continue, as will their ageing. Moscow's response to the latter problem, due to its severe financial problems, has been to introduce new missiles at an affordable rate and to extend the service life of the bulk of the force. To deal with the former problem, the Kremlin has been proposing parallel deep reductions of both Russian and US arsenals. The mid-term prospect for Russia is to remain a major nuclear power, albeit with reduced status. The talk is of an 'intermediate' position, somewhere between the pre-eminent power of the United States and the smaller nuclear forces of China, Britain and France. In the more distant future, between 2010 and 2015, if China expands its strategic nuclear arsenal drastically, it could reach numerical parity with Russia at the level of 700-800 warheads, thus cancelling Russia's unique advantage over its huge and dynamic neighbour.

V.2 Russian perceptions of other nuclear powers' policies

The main new element in the current Russian perception of the other nuclear powers is that it treats them separately, rather than as a group which Moscow needs to balance *en bloc*. With the promised strategic partnership failing to materialise, the United States remains the prime focus of Russian concerns and the principal object of nuclear deterrence exercised by Moscow.

Official Moscow's view of the United States assumes that Washington is bent on strengthening and expanding its global hegemony. The Russians point in particular to the continued existence of NATO, its eastward

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7 Colonel General (retd.) Volter Kraskovsky, 'Strategichesky schit rzhaveet', *Nezavisimoe voennoe obozrenie*, 2000, no. 43, p. 6.

8 Nikolai Mikhailov, 'Nauchno-tekhnichesky potentsial I oboronnaya bezopasnost', *Nezavisimoe Voennoe Obozrenie*, 2000, no. 26, p. 4.

enlargement despite Moscow's protests, the practice of humanitarian intervention (*à la* Kosovo) without a UN Security Council mandate, and especially US plans to deploy a national missile defence (NMD) system. That system, it is argued, is designed to provide America with nearly total protection, in the literal meaning of the Russian word for security, *bezopasnost* – the absence of threats. NMD, if deployed, would scuttle the 1972 Anti-Ballistic Missile Treaty, which is regarded as the cornerstone of strategic stability.

In this context, Russian nuclear weapons are seen as a political counterbalance to the growing unipolarity in the international system. The bilateral nuclear relationship with the United States is basically unchanged from the Cold War period**:** deterrence remains the name of the game for both sides. Detargeting of missiles is symbolic, but essentially meaningless. Moscow notes the refusal by the US Senate to ratify the Comprehensive Test Ban Treaty, and the Pentagon's reluctance to significantly cut the number of targets listed in the Single Integrated Operational Plan (SIOP). The expansion of the traditional role of nuclear weapons by allowing their use in local conflicts and for the purposes of counter-proliferation has been noted by the Russians. However, they attach more importance to the opposite and more recent trend in American military thinking, which seeks to minimise the role of nuclear weapons, capitalising on advances in highly precise conventional weaponry and missile defence technology. Interestingly, Russian experts treat post-Cold War deterrence in terms of a 'safeguard against backsliding to confrontation'.[9] They clearly believe that in the absence of true partnership Russia's nuclear status sets the limit beyond which Moscow's interests will not be ignored by the West, thus preventing serious collisions.

At the same time, Russian experts, analysing operations like *Desert Storm* in 1991 and *Allied Force* in 1999, highlight US advances in harnessing the Revolution in Military Affairs. They see America as being on the threshold of a post-nuclear age, when the missions traditionally assigned to nuclear weapons can be effectively fulfilled by precision-guided conventional arms. A global renunciation of nuclear weapons, coupled with NMD, they warn, would make the world safe for America's domination.[10] Thus, in the

9 Major General Vladimir Dvorkin, 'Yadernoe sderzhivanie: vzglyad v buduschee', *Pro et Contra*, vol. 3, Issue 4, Autumn 1998, p. 46.

10 Sergei Rogov, 'Stavka na yadernyy schit', *Nezavisimoe Voennoe Obozrenie*, 2000, no. 28, p. 1.

situation when the United States is becoming ever less reliant on nuclear weapons to safeguard its national security, Russia is even more wedded to its nuclear arsenal, and to the model of mutual assured destruction (MAD).

Having had to drop the notion of strategic parity with Washington, Moscow is considering ways of asymmetrical deterrence on the basis of the balance of capabilities rather than numbers.

Russia is just beginning to learn the art of deterring a stronger power from a position of relative weakness. On the one hand, it wants to make sure that in all conceivable circumstances the United States will remain vulnerable to Russian nuclear strikes. On the other, it is developing non-traditional ways of handling a potential adversary, such as information warfare.

Britain and France, by contrast, are regarded in Russia as relatively benign nuclear powers. Moscow accepts that their nuclear mission is to ensure national survival *in extremis*. London and Paris are credited with being responsible and not unduly assertive international actors, and their arsenals are certified as non-threatening. Politically, British and French arms have been virtually excluded from the modified central nuclear balance, so that they are no longer regarded as mere add-ons to the US part of the Russian-Western strategic equation. Some even regard these small nuclear forces as offering some useful lessons for Russia in its decline. Russian military experts, however, continue to view British and French nuclear modernisation with some concern. They also warn that the realisation of US NMD plans would make Britain an accomplice of Washington, for the new system would include radars and other assets based in the United Kingdom.[11] Conceivably, that could place Britain and France in different strategic situations, as viewed from Moscow. So far, however, the Russians have shown no interest in attempting to drive a wedge between the United Kingdom and France on nuclear matters. Rather, they have been thinking more about joining forces with America's European allies to constrain US NMD plans. Reviving Moscow's 2000 idea of a European-wide TMD and elaborating on its content (which Russia has consistently failed to do) would be a useful option.

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[11] See remarks by Defence Minister Igor Sergeyev during his visit to Britain, December 2000.

China presents a totally different picture. The Russians are ambivalent on this issue to the point of schizophrenia. On the one hand, Beijing is formally Moscow's strategic partner, and, at least for some members of the establishment, even a potential ally in opposing US world hegemony. From NATO enlargement in Central and Eastern Europe to proposed US TMD deployments in East Asia, joint opposition to separatism and humanitarian intervention and a united front against national missile defences, Sino-Russian strategic partnership has been growing in scope and intensity. Conveniently for Russia, China's nuclear forces are small and relatively unsophisticated. Even if expanded, they are not regarded as a match to Russia's arsenal. Very importantly, throughout the last decade, the Russian defence industry has been selling China about $1 billion worth of arms per year. Chinese military contracts, which for years have been keeping a number of Russian defence enterprises alive, are now being extended to the cash-strapped research and development centres. Minatom, the influential Russian nuclear industry ministry, regards China as a particularly lucrative market. Russian nuclear scientists and strategic missile specialists are reported to be sharing their expertise with their Chinese counterparts.

On the other hand, a growing number of élite and ordinary Russians are beginning to harbour suspicions, even paranoia about potential future threats from China. While most of these perceived threats (such as 'demographic aggression') lie outside of the traditional security sphere, the acquisition by China of a nuclear force comparable to Russia's could make it even more difficult for Moscow to manage its increasingly powerful neighbour. When Beijing achieves strategic nuclear parity with Russia, the historic reversal of the two countries' roles will have been completed.

Despite these fundamental divergences, Russian élites tend to agree that they have a breathing space of between 10 and 20 years before the potential threats start to materialise. This is likely to be a period of major uncertainties in the domestic evolution of both countries.

Russia does not officially regard *India and Pakistan* as new nuclear powers. Moscow calls on both Delhi and Islamabad to exercise restraint, sign the CTBT and 'regulate their relations with the IAEA and other international

organisations'.[12] At the same time, Russian perceptions of Indian and Pakistani nuclear policies differ considerably. Moscow recognises Delhi's great-power aspirations as both legitimate and unproblematic (for Russia). India has been Moscow's long-standing friend and ally. Democratic and predictable, it harbours no designs on the territories which Russia sees as vital to its security. It is equally opposed to Muslim extremism and separatism. It is a recipient of Russian arms deliveries on a par with China. Secretly, the Russians must be pleased that the Indian bomb is de facto a counterweight to growing Chinese power on the continent of Asia. Thus, from the very beginning Moscow abstained from sanctions and even harsh criticism in response to India's nuclear tests.

Although no sanctions were imposed on Pakistan either, Moscow looks at Islamabad's policies with distinct concern. From the Russian point of view, Pakistan's credit history is worrying. During the 1979-89 war in Afghanistan, Pakistan was the supply base for the mujahidin rebels. More recently, it has been the principal supporter of the Taliban regime, which the Russian leadership sees as the principal source of tension in the region and even a potential aggressor trying to expand its influence and its fundamentalist brand of Islam into Central Asia. Opaque and authoritarian, the Pakistani military regime is feared to be unstable. Should it disintegrate, there is a risk that extremist forces might triumph in Pakistan. In the worst-case scenario, an Islamic bomb may become a reality.

With the end of US-Soviet rivalry in Middle East, Moscow's attitude towards *Israel's* probable nuclear arsenal has changed. With no Arab clients dependent on Russia for their military protection, Russia can take a more relaxed attitude. Moreover, the links between Chechen rebels and Arab extremists have added a new dimension. Consequently, Moscow sees the Israeli bomb as both the ultimate argument in the Jewish state's struggle for survival and as a major argument in regional power relations. Occasionally, however, Russian diplomats could use US leniency with regard to Israel's nuclear programmes as evidence of America's double standards when it comes to proliferation.

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[12] President Putin's remarks to Indian and Russian journalists, 1 October 2000. See http://president.kremlin.ru.

V.3 The future role of nuclear weapons in Russian defence policy and military doctrine

Since the break-up of the Soviet Union, nuclear weapons have been fully rehabilitated in Russia as both a legitimate instrument of state power and the foundation of international stability. They are now officially credited with having saved the world during the Cold War. On the other hand, nuclear abolitionists have been marginalised. The value of brute military force has increased. The euphoria of Gorbachev's version of the 'end of history' has evaporated. Having done an about-turn, Russia's ruling élites have 'returned to history' and embraced a very harsh version of realpolitik. This archaic mentality somewhat reminiscent of the pre-World War I model, posits that bitter traditional clashes of interest among the major powers are probable.[13] Most members of the current establishment believe that Russia can only survive as a great power.[14]

In 2000, Vladimir Putin signed several policy documents creating a set of guidelines for Russian foreign, security and defence policy. Although more philosophical and bureaucratic than strategic or operational in nature, they provide an interesting insight into the Russian government's thinking, including on nuclear issues.[15]

Nuclear weapons are considered to be both the key status symbol and the principal argument of the supporters of great-power ideology. The immense destructive capabilities of Russia's vast arsenal of nuclear weapons are deemed to confer on the country the coveted status of a great power. Nuclear weapons, a great equaliser, should thus compensate Russia for its glaring deficiencies in other dimensions of national power, in such fields as economics, finance, or information technology, where Russia's power is currently negligible.

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13 Colonel General (retd.) Evgenii Maslov, *PIR-Center Paper* no. 10, p. 5.

14 Sergei Rogov, Russia's leading civilian defense expert, writes, e.g.: 'Russia cannot survive as a second-rate state. Due to its position in the world it can only survive as a great power'. See Sergei Rogov, 'Stavka na yadernyy schit', *Nezavisimoe Voennoe Obozrenie*, 2000, no. 28, p. 1.

15 The package includes: The National Security Concept of the Russian Federation; the Military Doctrine; the Foreign Policy Concept, and a few other blueprints.

Possession of nuclear weapons is also associated with permanent membership in the UN Security Council. When, however, the Council is bypassed, ignored, as in 1999 by NATO over Kosovo, nuclear weapons become the only real attribute of a great power. The surviving mutual deterrence relationship with the United States is the basis for special relations with Washington, which must take Moscow seriously despite all its weaknesses. The same applies to Russia's relations with the West in general. In large part due to its nuclear arsenal it received special treatment from NATO in the form of the Founding Act, and was admitted to the G-8. Russian leaders and generals were not reluctant to use references to their nuclear capabilities as a political tool to warn the West about the consequences of such actions as NATO enlargement, the Allied aerial bombardments of Serbian targets in Bosnia and later of Yugoslavia, and the US missile defence projects.[16] At the time of the USSR's break-up, Turkey was specifically warned not to interfere in the South Caucasus, for fear of a nuclear reprisal. Finally, following the withdrawal of all Soviet nuclear arms deployed in the newly independent states into Russia, Moscow has offered its nuclear umbrella to the CIS countries. Extended deterrence has been advertised as a foundation for alliance-building and thus extending Russia's zone of influence across the new Eastern Europe, South Caucasus and Central Asia.

Even more than in Soviet times, nuclear weapons have come to be considered as the mainstay of national defence and security.[17] This is the direct result of the implosion of the Soviet geostrategic position in 1991 and the plight of the Russian armed forces. Today's Russia is a pre-eminent military power *only* due to its nuclear arsenal. For the first time since the Second World War, Russia has lost its military superiority in *both* Europe and Asia, where it is outnumbered and outgunned by NATO (not to mention the latter's qualitative edge) and by China. The Russian leadership has had to adopt the West's Cold War strategy of using nuclear capabilities to adjust the overall military balance in a situation of conventional inferiority (enhanced deterrence).[18]

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16 See, e.g., Admiral (retd.) V. P. Popov, Rear Admiral (retd.) V. G. Lebedko and Rear Admiral (res.) A. P. Rudomyotkin, 'Zachem nam nuzhen strategicheskiy raketny kreyser "Yuri Dolgoruky" ', *Voennaya Mysl*, 1998, no. 5, September-October, p. 24.

17 See the Military Doctrine of the Russian Federation; Major General A. F. Klimenko, 'Osobennosti novoy Voennoy doktriny', *Voennaya Mysl*, 2000, no. 3, May-June, p. 30.

18 This strategy is broadly supported by the population. A public opinion poll by the ROMIR polling group in July 2000 resulted in 22.7 per cent of respondents accepting

Although a nuclear attack or a large-scale war with the United States and NATO is thought to be an extremely remote possibility, nuclear deterrence of the United States and its allies remains a prime task of Russia's nuclear forces. More recently, in the light of the Kosovo crisis, another task was added to that, namely, deterrence of a limited stand-off attack against Russia or its allies (actually, Belarus).

Russia has been offering nuclear guarantees to other allies among the CIS states. These guarantees, however, have not been finalised. More importantly, with the sole exception of the Armenia-Turkey relationship, it is difficult to imagine situations where those guarantees would be relevant to the current security concerns of the new states.

Nuclear weapons are also considered to be a hedge against new proliferators, many of whom are situated along Russia's southern periphery. Finally, they are also commonly regarded as a hedge at a time of military reform.[19] The problem with both of these notions is that neither the would-be proliferators nor those who present a real threat to Russia are likely to pay too much attention to Russia's nuclear arsenal. Military reform, in other words, may be safely pursued without much regard for US conventional superiority, but it is actually being attempted against the background of a deadly conflict in the North Caucasus and the smouldering condition of Central Asia.

The important psychological value of nuclear weapons should not be overlooked. One has also to think in terms of the status nuclear weapons confer on the Russian head of state, much of whose personal position among his peers to a large extent derives from the fact that he is concurrently commander-in-chief of the Russian Armed Forces and is accompanied everywhere by his nuclear suitcase. Suffice it to refer to President Yeltsin's de facto farewell message to Bill Clinton delivered from Beijing in December 1999.[20] Russian military commanders do not measure up their forces against the riff-raff Muslim rebels in the southern borderlands, and derive

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the use of nuclear weapons in defence of supreme national interest. In a critical situation for their country, 21.2 per cent of Russians would favour going nuclear. *Nezavisimoe Voennoe Obozrenie*, 2000, no. 42, p. 8.

19 The Military Doctrine 2000.

20 Yeltsin issued a strong rebuff to Clinton, for the US President 'had forgotten for a minute, for a second that Russia is a nuclear power'.

their prestige from their possession of nuclear arms. To some extent, this is true of the bulk of the political class and the security and defence establishment in Russia.

The Russian leadership has effectively had to drop the principle of numerical parity with the United States.[21] Even though for a few more years – or longer, if Washington agrees to Moscow's proposal of sharply reduced levels – the two countries will keep comparable nuclear weapons holdings, American technological, production and financial capabilities will be immensely higher. There can be no repeat of the US-Soviet arms race, if only because Russia lacks the resources. Instead, Russian strategists are crafting a more sophisticated balance of capabilities which includes elements such as counterforce effectiveness; realistic launch on warning options; guaranteed delivery of warheads to targets in a second strike, etc.[22] Maintaining this balance is considered the key to strategic stability. Thus, the goal is to reliably deter the United States at minimal levels of around 1,000 weapons. As nuclear force levels are falling, deterrence is becoming a more complex task.

In this context, the task of inflicting 'unacceptable damage' on an enemy has been revised; instead, the new military doctrine has adopted the notion of 'designated damage'.[23] This involves a drastic reduction in the number of warheads which would have to be guaranteed to reach their targets. The answer to the question 'How much is enough to deter?', however, depends to a very large extent on the 'pain barrier' of the nation to be deterred. In the opinion of some independent Russian experts, in the case of the United States it could be crossed with no more than two dozen deliverable warheads.

As far back as 1993 Russia dropped the Soviet no-first-use pledge, which was little more than a propaganda ploy. Since then, Russia's readiness to use nuclear weapons first has been repeatedly confirmed and strengthened. Initially it was read as a simple borrowing of NATO and US strategies of

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21 This was first made in President Yeltsin's address on national security to the Federal Assembly on 25 June 1996.

22 Major General Vladimir Dvorkin, 'Yadernoe sderzhivanie I dogovor SNV-2', *Yadernoe Rasprostranenie*, Issue 17, May 1997, p. 8.

23 The Military Doctrine of the Russian Federation, approved by President Putin on 21 April 2000.

the 1960s and 1970s, in response to overwhelming Warsaw Pact superiority in Central Europe, i.e. as a means of last resort, to forestall a crushing defeat and national catastrophe. This would in theory apply to the European and the Far Eastern/Siberian theatres. Later, however, the range of scenarios where Russia might consider first use was expanded.

Thus, nuclear weapons are no longer regarded simply as a deterrent, but as a means of warfighting. A close reading of official Russian documents may lead one to conclude that even preventive nuclear strikes in a loosely defined crisis situation are not ruled out.[24]

In Europe, this could serve as a warning in a Balkans-type situations, with the purpose of denying NATO any benefits from a low-risk air campaign against Russia or her ally Belarus. In Central Asia, a similar warning could be served on the Taliban allegedly poised to invade their CIS neighbours. The warning shots will probably be fired with tactical nuclear weapons (TNW), which have remained somewhat of a mystery despite all the openness now associated with strategic armaments.[25] It is known, however, that a new tactical missile, the *Iskander*, is being developed. Flexibility and survivability of weapons are particularly important.

This means that Russian military doctrine has fully embraced the concepts of limited nuclear wars and of nuclear escalation, both bitterly criticised and ridiculed in the Soviet era.

The truth, however, is that most of the real threats that Russia is facing are non-military in nature, and those which are can hardly be countered using nuclear weapons. Although a few madmen called for a nuclear bombardment of Chechnya at the start of the second war there, no one seriously considered that option. Meanwhile, the Chechen war is likely to drag on indefinitely, with no prospect of a victory for Russia. Central Asia and Afghanistan are similar cases. For one, the real source of threat is the sharply worsening socio-economic conditions and the thoughtlessly repressive political regimes in the former Soviet republics which have not yet become either fully-fledged states or cohesive nations. The Islamic extrem-

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[24] Vladimir Zakharov, 'Regionalnye ugrozy Rossii I yadernyy faktor', PIR Centre Paper no. 14, p. 32.

[25] Ivan Safronchuk, 'Buduschee yadernykh sil Rossii', PIR Centre Paper no. 10, pp.36-7.

ists there are as little deterred by the prospect of a Russian nuclear strike against them as are the Chechen rebels.

This mismatch was dramatically reflected in what appeared on the surface to be a bitter personal feud which erupted in 2000 between Defence Minister Sergeyev and Chief of the General Staff Kvashnin. Beyond the personalities, and even beyond very real factional and service interests, the issue was the nature of military threats to Russia and the ways of dealing with them.[26] In a nutshell, Igor Sergeyev's position assumes that the main threat to Russia will continue to come from the United States and its NATO allies, and that this challenge should be met by bolstering Russia's own strategic nuclear forces. Anatoly Kvashnin, by contrast, is more concerned about the local and regional conflicts along Russia's southern periphery. To prevent those conflicts, and to prevail in those which have not been prevented, strategic nuclear forces are as good as useless. General Kvashnin forcefully argues in favour of conventional forces suited for the conflicts of the new age. In Kvashnin's view, strategic nuclear forces can be drastically reduced, even down to 500 weapons.[27] They would contain 100-150 silo-based ICBMs, 120 SLBMs on 8 submarines, and 70 heavy bombers on two air bases. Critics have argued that the 'Kvashnin Plan' would make Russian nuclear forces vulnerable to a pre-emptive counterforce strike by the United States, which would be able to escape retaliation. At the same time, it is clear that de-emphasising the role of nuclear weapons, which is the essence of the 'Kvashnin Plan' is an indication of the new elements of realism in Russian strategic thinking.

The central issue under dispute – what kind of armed forces for what types of contingencies – has not been satisfactorily settled in the first year of the Putin administration. Future politico-military developments in various parts of the world may have a major, even decisive impact upon it. One is Chechnya and Central Asia, already touched upon, and the Taiwan Strait; the other, US plans to build national missile defences.

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26 This row is a follow-up to another bitter but publicly much more muted dispute around the proposed formation of a Unified Strategic Command under the Minister of Defence which would have bypassed the General Staff (1998-99). President Yeltsin then sanctioned the plan, but it was never implemented.

27 For an interesting analysis of the 'two military doctrines', see: Alexei Arbatov, 'Dilemmy voennoy politiki Rossii', *Nezavisimoe voennoe obozrenie*, 2000, no. 43, p. 4. (Arbatov argues in favour of Sergeyev's position).

These plans are described by the Russian government as destabilising, and seriously eroding deterrence. Moscow does not accept the threat from 'states of concern' as the true reason for NMD. Enhancing its technological edge and creating a basis for a huge spillover effect which would again energise the US economy, are more to the point. A few people suspect that the United States wants to achieve virtual immunity from any outside threat, which would render the Russian nuclear arsenal impotent vis-à-vis the United States, but more serious is the risk of a chain reaction across Asia and the Middle East which would follow US deployments. Thus, China's response to the United States would provoke India, to which Pakistan would not remain passive, and Pakistan would incite Iran, which in turn would goad the Israelis. All of which would of course be happening along Russia's southern periphery.

Regarding the ABM Treaty as the cornerstone of strategic stability, Moscow officially opposes its updating, and is threatening to withdraw from arms control agreements in order to be free to counter this challenge.

At the same time, Russian experts have concluded that no system which can be devised and deployed in the foreseeable future can be capable of giving the United States absolute protection. In the most realistic circumstances, Russia will retain enough penetration capability to overwhelm any conceivable US system. Thus, Russia's deterrent power is not in real danger. This opens the way to serious discussions and ultimately compromise solutions to the offence-defence dilemma. Actually, Moscow has already made a small step in that direction by agreeing, in New York in 1997, to discriminate between strategic and non-strategic missile defences.[28] Travelling in Western Europe in mid-2000, Vladimir Putin publicly admitted the seriousness of missile threats and the legitimacy of countering them by means of a TMD. Although he spurned Bill Clinton's advances on the NMD/ABM compromise soon after assuming office, Putin may be getting ready for a serious dialogue with the Bush administration on these issues.

[28] The 1997 New York protocols, which still await ratification by the United States, effectively add to the 1972 ABM Treaty by imposing technological restrictions on the missile defence systems.

V.4 Arms control and nuclear and missile proliferation

For all its new respect for nuclear weapons, Russia cannot afford to keep its holdings at high levels. From Moscow's perspective, arms control is becoming even more important than it was during the Cold War, because of Russia's economic and military weakness. Arms reduction agreements are now a means of managing Russian decline, and preventing overwhelming US superiority. Occasionally, as the START II saga demonstrates, it is also used as one of the few instruments of pressure or, alternatively, reward in Russia's relations with the United States.

Implementation of arms control agreements has become a major burden for the Russian federal budget. There are over 180 decommissioned submarines waiting to be dismantled, of which over 100 still have nuclear power plants on board.[29] In the next decade, some 250 ICBMs will have to be eliminated.[30] Treaty implementation has been made possible to a large extent due to the Cooperative Threat Reduction programme initiated by Sam Nunn and Richard Lugar. The sheer size of the forthcoming reductions suggests that in all probability the reductions will proceed at a very slow pace.

Arms control, however, is perceived to be in deep crisis. With parity gone, and US incentive for maintaining an exclusive relationship with Russia no longer there, bilateral Russian-American arms control has ceased to be the prime instrument for ensuring strategic stability in the world. In the United States, which sees nuclear and missile proliferation, rather than the Russian nuclear arsenals, as the main threat, support is growing for unilateral action. The 'objective need' for multilateral arms control, involving other nuclear powers, is tempered by the very serious obstacles in the way of that goal.

In an effort to deter the United States from adopting a unilateralist stance on such issues as NMD, Russian officials have been hinting at the possibility of Russia withdrawing from its previous commitments under the START I, START II and INF treaties altogether, building a force capable of over-

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29 *Nezavisimoe Voennoe Obozrenie*, 2000, no. 27, p. 4.

30 Interview with Army General Vladimir Yakovlev, C.-in-C. SRF, with *Krasnaya Zvezda*, 16 December 2000, pp. 1,3.

whelming any conceivable US missile defences, and generally adopting a fully unconstrained policy in the field of nuclear weapons.[31]

Russia faces a dilemma. It needs an agreement with America on large mutual reductions in strategic arms: the only alternative to that would be unilateral reductions by Russia. That is why both Yeltsin in 1997 and Putin in 2000 pressed Clinton to agree to ever smaller numbers of warheads.[32] On the other hand, if President George W. Bush were to go ahead with a full-scale NMD, the natural Russian response would be to increase the number of weapons in order to overwhelm US missile defences.

Sooner or later Moscow will have to come to a decision. It appears likely that Russia will attempt to obtain maximum possible concessions from the US side, and not only in the sphere of strategic arms, before abandoning its rigid stand on the immutability of the ABM Treaty and settling for some compromise which will satisfy Washington.[33] Russia would strive not only to cap the number of US interceptor missiles, but also to constrain the control system by limiting the numbers and technical parameters of SBIRS satellites and land-based radars. Compensation in the field of strategic arms might include, e.g., limited re-MIRVing of ICBMs and measures to exclude the possibility of a decapitating strike by the more powerful US forces. The outcome of eventual negotiations on strategic issues, however, will largely depend on the level of technological progress the United States is able to attain in the field of missile defences.

In this context it is important to keep in mind the China connection. Beijing would probably not be allowed to stand in the way of a US-Russian compromise agreement on missile defences, but it is likely to demand a certain price from its strategic partner Moscow, and receive some compensation. It

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31 Russian response options have been summarised by Major General (retd.) Vladimir Belous in his interview with *Nezavisimoe Voennoe Obozrenie*, 2000, no. 25, pp. 1-2.

32 In November 2000, Putin proposed cutting Russian and US strategic nuclear arsenals to 1,500 warheads each by 2008, after which he is willing to consider even deeper cuts. *Interfax*, 13 November 2000. In Marshal Sergeyev's view, this proposal is valid only if the United States continues to adhere to the ABM Treaty. *Interfax*, 15 November 2000.

33 For an interesting discussion of the issue, see V. N. Tsygichko and A. A. Piontkovsky, 'Dogovor po PRO: nastoyaschee I buduschee'; and S. V. Kreidin, 'Ogranichennaya PRO: likvidatsiya slabosti ili ukreplenie sily', in *Voennaya Mysl*, 2000, no. 1, pp. 6-18.

is a moot question what form this compensation might take but of the things Russia can deliver the Chinese appreciate its military technology most.

Besides the reduction of weapons holdings and resolution of the offence-defence relationship, Russia and the United States have been widening information exchanges on missile launches. This is especially useful for Russia with regard to the shrinking of its early warning network of radars and satellites. Russia has proposed that the exchange centre opened in Moscow in 2000 be opened to other nuclear powers. Russian military experts suggest further confidence-building measures on the basis of greater transparency, such as dramatically broadening the information exchange to include even sea-based nuclear systems, as well as data about potential troublemakers. [34]

Russia is also open to discussion of various de-alerting options, but it wants to keep a substantial part of its nuclear arsenal, some 500-600 warheads, at alert status, also as a hedge against third nuclear powers.[35]

With regard to tactical nuclear weapons, Gorbachev's 1991 moratorium, confirmed by Yeltsin the following year, still stands.[36] The measure effectively phased out land-based tactical nuclear weapons in Europe, leaving, however, air- and sea-based systems intact. Russia wants to keep TNWs in reserve for enhanced deterrence, and is only cautiously approaching the prospect of their negotiated reductions. Taking account of the dual-capability (i.e., nuclear and conventional) nature of most delivery platforms, such negotiations are likely to be very difficult and protracted.

There is in principle a full sharing of goals between Russia and the West on the issue of WMD proliferation. There is an important distinction, however. From Moscow's perspective, proliferation as a threat is far down the list. The United States traditionally perceives nuclear and missile challenges as ultimate threats, because they do affect America proper. For Russia, a number of other threats – such as Chechen War-related terrorism and

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34 Major General (retd.) Pavel Zolotaryov, 'Tsepnaya reaktsiya strakha', *Nezavisimoe voennoe obozrenie*, 2000, no. 35, p. 4.

35 For a good and authoritative summary of the Russian approach, see Vladimir Dvorkin, op. cit. in note 9, p. 51.

36 As a parallel gesture, the same obligations were assumed by President Bush in 1991.

instability in Central Asia that threatens local regimes – are much more real, and immensely more relevant.

There is also a prevailing sense of scepticism vis-à-vis the capacity of the international community to stop and roll back the spread of nuclear weapons and missile systems: as it were, the horses have already bolted. Although Russia has proposed creating a global system to check on missile technology proliferation, this is more of a diplomatic alternative to an NMD deployment by the United States. Technological progress is unstoppable, and, moreover, the fact of America's world dominance provokes all those who fear US interference into acquiring the only weapons that America dreads. So far, President Putin's contribution to non-proliferation has been his proposal, made at the UN millennium summit, to exclude the use of enriched uranium and plutonium in civilian nuclear reactors.

Many Western analysts see Russia as part of the proliferation problem. The US government expresses public concern over Russia sharing missile and nuclear technology with problem states such as Iran.[37] There was a well-publicised case of Russian gyroscopes shipped to Iraq. Russian officials usually deny these allegations, claiming that the Americans are worried about Russia's competition in the field of nuclear energy. Moreover, some would add, the NATO countries' use of force in the Kosovo crisis has strengthened the incentive for some regimes to acquire nuclear weapons and thus procure immunity from US-led military intervention.[38]

There are several points worth mentioning here. First, in the decade of tumultuous, often chaotic, post-Communist transformation the nuclear arsenals have been kept intact and under control. There has been relatively little theft of nuclear materials. Second, the Russian atomic energy ministry is in fact a powerful business corporation which can effectively lobby its interests within the Russian government. It has its eyes on the lucrative world nuclear market and is not prepared to yield easily to political pressure from the West, which it certainly views as a competitor. Third, there are various criminal groups inside Russia involved in smuggling sensitive items

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37 See, e.g. 'The Threat of Nuclear Diversion. Statement for the Record', by John Deutsch, Director of Central Intelligence to the Permanent Subcommittee on Investigations of the Senate Committee on Government Affairs, 20 March 1996, pp. 4-5.

38 Colonel L. A. Kononov, 'O probleme yadernoy opasnosti v sovremennom mire', *Voennaya Mysl*, 2001, Issue 1 (January-February), p. 5.

abroad. The laxness of Russian/CIS customs controls and pervasive corruption have facilitated their activities.

What is required is strengthening of government control over nuclear exports and nuclear safety. Recently, some progress appears to have been made there. Still, the safety of civilian nuclear installations remains a matter of most serious concern, as is the risk of a brain drain to states of concern.

Curiously, Russia is less worried about the potential proliferators than its geostrategic position would suggest. Russian estimates of North Korean or Iranian capabilities are much more conservative than those made in the United States More important, Moscow disagrees with Washington on the intentions of the would-be proliferators. Whereas the Americans view them in global terms, the Russians emphasise the regional context. Moscow does not regard the North Korean or Iranian leaderships as irrational, but maybe as too rational – in terms of using nuclear blackmail to wring concessions from the United States. Conversely, some Russians suspect that the US administration is using the notion of 'rogue states' or 'states of concern' as a cover to promote the 'unipolar world'. They accuse the Americans of practising double standards by applying sanctions on Russia for its cooperation with Iran while at the same time giving a similar deal to North Korea from which the Russians were initially excluded. Finally, Russia does not regard rogue states as potential adversaries. North Korea, Iran, Iraq or Libya were all formerly clients of the USSR and have a vested interest in maintaining cooperation with Russia, and Moscow prefers to manage rather than pressure them.[39] A presence on the ground, such as in Iran, the Russians believe, will not only bring financial benefits but also provide a good opportunity to observe developments from the inside and even influence local policies.

None the less, a nuclear bomb in the hands of Russia's avowed enemies among Islamic extremists would be regarded as a major threat. The Chechen rebels in the first war (1994-96) repeatedly threatened to resort to nuclear terrorism. In actual fact, they only staged a single demonstration exercise (by planting radioactive material in a Moscow park in 1995). Should the

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39 This was most vividly demonstrated by Putin's trip to North Korea in July 2000 which produced a loose promise by Chairman Kim Il Jong to suspend further tests of long-range ballistic missiles.

Taliban get hold of the bomb, the Russians would immediately see that as a threat. As US-Russian dialogue on Afghanistan in the second half of 2000 showed, Moscow would be prepared to engage in joint counter-proliferation actions (such as air and missile strikes) together with the United States.

Having reluctantly recognised (though not accepted) America's global pre-eminence, at least some Russian experts are content with what they term 'nuclear multipolarity'. This concept puts Russia next to the United States at the top of the pyramid, with Britain, France and China occupying the middle level, and India, Pakistan and Israel close to the bottom of the construct, beneath which threshold states like Iran and North Korea operate. This model calls not so much for the continuation of the Cold War rivalries as for concerted action to prevent and repel new nuclear threats to international peace and security.[40]

V.5 Russian perception of a European defence identity

Initially, there was some concern in Russia with regard to the rise of the EU's military capabilities. The logic was simple: Russia has no alliance relationship with the EU; the majority of the EU countries are members of NATO; a more cohesive EU may become more assertive with regard to Russia's periphery and Russia itself. Thus, Russia's comparative advantage as the dominant military power on the continent of Europe will be eroded.

Later, however, this rather atavistic attitude was revised. Russian leaders and military chiefs started to see the process of Europe acquiring its distinct security and defence identity in the context of growing multipolarity. As Europe comes into its own, America's influence this side of the Atlantic will wane, and Russia will be able to enter into more balanced relationships with both parts of the West, the European Union and the United States. In short, in order to minimise the problems it has with NATO, Russia could and should expand and deepen its relations with the European Union.

The 1998 Franco-British summit at St-Malo aroused much interest in Russia, but few serious concerns. The prospect of a concerted policy of deterrence pursued by the West European countries is now viewed more in

[40] L. A. Kononov, op. cit. in note 38, pp. 7-8, 11.

the transatlantic than in the traditional East-West context. The old fears related to Germany are now muted. In fact, Germany is regarded as *the* EU member state most interested in reaching out to Russia.

The traditionalist core of the Russian security community also hopes that this could help undermine America's pre-eminence in Europe. However, the prospect of Europe's strategic independence from the United States is considered remote. NATO will remain the West's principal military organisation for the foreseeable future. While progressively getting closer to the EU as the main pole of attraction, Russia cannot afford to ignore the reality of NATO.[41]

A more constructive approach would be to work towards an arrangement which would include Russia, the European countries, and the United States. Taking a step in that direction, President Putin has put forward a plan to develop a European TMD which has been developed by scientists close to the leader of the reformist *Yabloko* faction, Grigory Yavlinsky. So far, Russia has suggested that initially the participating states jointly perform analysis of missile proliferation threats; draft a joint concept of a European theatre missile defence system and agree on its development and deployment; create a multilateral missile launch early warning centre; and hold command post exercises. At a later stage joint research and experiments and joint development of a TMD system would follow. Finally, a TMD 'for joint or coordinated action to defend peacekeeping forces or the population of Europe' would be deployed. The whole process would take up to 10-15 years, during which the Russians foresee no real missile threats to Europe.

The Russians may be overestimating interest in Europe and the United States in their air and missile defence technology, built upon the successful S-300 system. Creating a joint system would be quite a challenge. Nevertheless, if Putin's initiative of a joint TMD system for Europe *with* Russian and US participation is followed up with specific proposals – which thus far

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41 For a good discussion of recent Russian approaches to EU's 'militarisation', see Dmitri Danilov, 'Rossiya v bolshoy Evrope: strategiya bezopasnosti', *Sovremennaya Evropa* 2000, Issue 2 (April-June), pp. 50-61. See also Dmitriy Danilov and Stephan De Spiegeleire, 'From decoupling to recoupling. A new security relationship between Russia and Western Europe?' *Chaillot Papers* 31 (Paris: Institute for Security Studies of WEU, April 1998).

have been lacking – a sound basis for a Russian-Western security relationship could be created for the first time.

V.6 Conclusion

At the beginning of the twenty-first century, Russia is gradually ceasing to be a nuclear superpower. In the medium term at least, it will remain, however, a major nuclear power. Russia's principal problem will be to manage the decline, both mentally and physically (implementing the necessary reductions and elimination), and to reconfigure its resources for new tasks ahead. However, Moscow's ability to promote Russian national interests through a heavier reliance on nuclear weapons will be severely constrained. Despite all the prestige associated with its vast nuclear arsenal, a new understanding is being developed of the need to pay more attention to conventional forces.

In the coming years, Russia will have to take a fundamental decision regarding the structure and mission of its armed forces, and in particular the relationship between its nuclear and conventional components. This will ultimately depend on the even more fundamental decision regarding Russia's own post-Soviet strategic identity. Will Russia, in other words, move towards an ever closer association with the European Union and progressively demilitarise relations with the West? Will it withdraw into some form of self-imposed isolation? Will it seek to build anti-Western alliances with China and, possibly, Iran?

This all-important decision will depend on the outcome of a number of serious tests, including the evolution of the ABM-NMD problem; the potential rise in US-China tensions, even crises, over Taiwan, which would threaten to suck Russia in. In the somewhat more distant future (10-15 years), Russia will have to find a way of dealing with a China which is no longer a nuclear dwarf.

At a more practical level, Russian military doctrine will need to undergo a thorough review of the circumstances in which the actual use of nuclear weapons could be envisaged. The current nuclear bias needs to be corrected in favour of modern post-Cold War conventional forces.

In the event of Russia's generally continuing along the path of democracy, market economy, civil society and integration into the wider world, there is a growing likelihood that minimum deterrence coupled with effective confidence-building measures will eventually be adopted as Russia's new strategy vis-à-vis the West. As Russia moves from adversarial parity to cooperative security and eventually to a 'security-community', it will need to rethink its approach to arms control.

The spread of nuclear arms and missile technology in Asia and the Middle East will present Russia with a number of challenges which will require international cooperation. In this cooperation, the European Union and the United States are more likely to emerge as Russia's partners than rivals.

An optimistic scenario, however, is not guaranteed. A renegade Russia which either attempts to regain its lost empire within the former USSR or challenges the United States in an (unequal) alliance with China is also possible, though not very probable at this time. However, a combination of domestic failure and the perceived need for an enemy image against which to unite the country may put Russia once more on a collision course with the West.

Chapter Six

THE NUCLEAR EQUATION IN ASIA[1]

Brad Roberts and Shen Dingli

Historically, Asia has been little more than a footnote in the global view of the nuclear weapons problem. Looking to the future, Asia's importance is certain to rise. Indeed, there is a good argument that Asia's place in the global nuclear equation may be decisive in the decades ahead. As Thérèse Delpech has argued, 'the most complex nuclear questions are located in Asia . . . There are two nuclear issues which have so far attracted little attention: first, the wide gap between Asian and Western nuclear perspectives at the dawn of the third millennium; and second, the possible role of nuclear weapons in a context which has little in common with Cold War experiences.'[2]

The existence of important nuclear questions in the region has been well demonstrated by numerous recent developments. Nuclear tests in South Asia and the unfolding debate there about what types of forces to construct over the long term raise an important question about whether India and Pakistan will settle for minimum deterrence or move toward more robust war-fighting capabilities. China's strong political reactions to possible deployment of ballistic missile defences, both theatre and national, by the United States raise an important question about the trajectory of Chinese strategic modernisation and the future nuclear relationships that may develop not just with the United States but also Russia, India and others. The combination of developments in South Asia and those in China raises a question about the future of the strategic triangle formed by China, India and Pakistan. The recent political opening between the two Koreas raises an important question about the ultimate fate of the effort to remove the danger of nuclear weapons from the peninsula and to ensure that Korea remains

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1 The views expressed here are the authors' own and should not be attributed to any of the institutions with which they are affiliated. They are grateful to Ralph Cossa, Thérèse Delpech, Katy Oh Hassig, and Burkard Schmitt for comments on earlier versions of this chapter.

2 Thérèse Delpech, 'Nuclear Weapons and the New World Order: Early Warning from Asia?', *Survival*, vol. 40, no. 4, Winter 1998-99, pp. 57-76.

free of nuclear weapons. And the ongoing diffusion of nuclear power generation capabilities raises important questions about the latent nuclear weapons capabilities of many other actors in the region, including most prominently Japan and Taiwan.

In order to probe these questions, and to shed light on their importance for the global nuclear equation, we proceed as follows. We begin with a survey of the Asian nuclear landscape, with a look at developments in South Asia, North-East Asia, and other important aspects, including the major power overlay. We then sketch out a set of three alternative futures. Lastly, we explore the factors that will determine the path ahead, with special focus on US ballistic missile defence (BMD), the US-PRC (People's Republic of China) relationship, and the role of arms control.[3]

VI.1 Preliminary observations on Asia's nuclear history

Asia may have been a footnote for many nuclear scholars in the West, but it is far from accurate to say that Asia has been irrelevant to the first five decades of the nuclear era.

China emerged as the fifth nuclear power in the 1960s. Mao Zedong's decision to seek nuclear weapons in part reflected Beijing's deep unhappiness with Washington's nuclear threats toward China in the 1950s. It may also have reflected his desire to see the PRC fulfil its claims to great power status and to a seat at the United Nations Security Council as a permanent member.[4]

Moreover, conclusion of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1968 firmly shut the door on a number of nuclear

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[3] The two authors have not previously collaborated on a writing project. But in recent years we have frequently found ourselves speaking together on panels at conferences on Asian and nuclear security. This paper reflects our common desire to fully describe the common ground in our view of the nuclear problem and also to bring into better focus the important differences of perspective that remain with the hope that the policy debate can be better informed by an understanding of the ways in which the interests of our two countries sometimes overlap and at other times compete.

[4] John Wilson Lewis and Xue Litai, *China Builds the Bomb* (Stanford, Calif.: Stanford University Press, 1998).

ambitions in the region, whether real or potential. As described in more detail below, Japan, Australia, Indonesia and possibly others were debating what future role nuclear weapons capabilities might play in their national postures at the time that the NPT was negotiated and entered into force.

Furthermore, Asia was a zone of US-Soviet nuclear competition. During the Cold War, the Soviet Union maintained a very large military presence – including nuclear weapons – in Asia. And the United States deployed nuclear weapons into the region aboard naval forces and in South Korea. The nuclear reductions begun with the end of the Cold War have had an important impact on the disposition of these two nuclear forces in East Asia. Reductions began with the 1987 Intermediate-range Nuclear Forces (INF) Treaty, which resulted in Soviet withdrawal of land-based missiles from the region, many of which (including the SS-20 force) had been targeted against China and other East Asian states.[5] In 1991 and 1992, the Soviet Union, then Russia promised to take unilateral steps to remove non-strategic nuclear forces from military units in the field, including naval vessels, although questions remain about Russia's actual progress in doing so. The United States promised and implemented parallel steps to withdraw such forces from the region – indeed, its initiative preceded Russia's.[6]

And we should not overlook the fact that the nuclear status of India and Pakistan has been ambiguous for at least two decades. India conducted a test (which it deemed 'a peaceful nuclear explosion') of a nuclear device in 1974 and has operated several uranium-fuelled reactors whose spent fuel can be reprocessed to extract plutonium for weapons purposes, leading to continuing speculation since 1974 about the status of India's weapons capabilities.[7] Pakistan is believed to have first acquired its nuclear weapons capability in the mid-1980s. Sanctions were imposed on Pakistan by the United States in 1992 when the Bush administration could not certify that Islamabad did not

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5 See Patrick Garrity, 'Nuclear Weapons and Asian-Pacific Security,' *National Security Studies Quarterly*, Winter 1998, p. 60. See also Robert Norris, et al., *Nuclear Weapons Databook*, Volume V (Boulder, CO: Westview Press, 1994).

6 Andrew J. Mack, *Proliferation in Northeast Asia*, Occasional Paper No. 28 (Washington, DC: Henry L. Stimson Center, July 1996), p. 4. See also Leonard Spector, Mark G. McDonough and Evan S. Medeiros, *Tracking Nuclear Proliferation* (Washington, DC: Carnegie Endowment for International Peace, 1995), p. 55.

7 George Perkovich, *India Builds the Bomb* (Berkeley, Calif: University of California Press, 1999).

possess nuclear weapons.[8] The 1998 tests were all the more striking for the fact that they came at a time when good progress was being made in stepping back from the nuclear brink, as the existing nuclear weapons states pursued a mix of bilateral and unilateral measures to reduce nuclear threats and risks.

This brief survey suggests that the nuclear rivalry of the superpowers during the Cold War diverted attention away from various important nuclear factors in Asia – logically enough, perhaps. But with the Cold War now nearly 15 years in the past, it is important to understand the continuing unfolding of Asia's nuclear history.

VI.2 Surveying the Asian nuclear landscape

To the extent that Westerners interested in matters nuclear have thought about Asia, they have tended to focus on the nuclear challenge in North Korea and the break-out by India and Pakistan, with a footnote perhaps to China as a 'nuclear pygmy'.[9] To the extent that Asians think about the nuclear problem in Asia, they tend to focus on the winding down of super-power nuclear confrontation, with a footnote perhaps to nuclear developments in subregions of particular interest. Our preference is to take a more comprehensive view. Accordingly, we survey here nuclear factors by subregion.

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8 Special section on 'Crisis in South Asia,' *Arms Control Today*, vol. 28, no. 4, May 1998, pp. 22-7.

9 The term 'pygmy' is a common shorthand but is not used specifically in any of the following publications. To illustrate the argument that Asia figures barely if at all in thinking about the nuclear future, see these three recent reports: *The Future of US Nuclear Weapons Policy*, Report of the Committee on International Security and Arms Control, National Academy of Sciences (Washington, DC: National Academy of Sciences, 1997); *US Nuclear Policy in the 21st Century: A Fresh Look at National Strategy and Requirements*, Report of the Center for Counterproliferation Research at National Defense University and the Center for Global Security Research at Lawrence Livermore National Laboratory (Washington, DC: National Defense University, 1998); and the *Report of the Canberra Commission on the Elimination of Nuclear Weapons* (Canberra, 1996).

South Asia

In South Asia, the nuclear issue is at its most stark. With the nuclear tests by India and Pakistan in 1998, a new era has emerged. It is not fully accurate to say that both states acquired nuclear weapons at this point, as it appears that both possessed assembled weapons at an earlier time and conducted explosions in 1998 as much in order to demonstrate an existing capability as to test and validate weapons designs. South Asia's nuclear future will be determined by the path now taken by India and Pakistan.

On the one hand, Delhi and Islamabad may succeed in formalising nuclear postures at the minimum necessary for stability – as they have promised to do. This implies a modest number of weapons deployed so as to make successful pre-emptive attack unlikely. On the other hand, a process of competitive force development may lead them away from minimum deterrence. Especially in India, the search for a force posture that can sustain a first strike and maintain a capability for retaliation may lead to a force that is quantitatively and qualitatively well beyond what many would consider necessary for minimum deterrence. Moreover, it is clear that defence planners in Delhi have their eye on China as much as Pakistan, and may be motivated in the long term to construct a nuclear posture that addresses its concerns vis-à-vis both countries. And it is certainly the case that India's thinking about its future nuclear requirements is informed by a deep-seated frustration that the great power status it feels it is due has somehow been denied it by the international community.[10] All of these factors point to an Indian nuclear force quantitatively and qualitatively more substantial than what might be necessary in a strictly minimum deterrent posture vis-à-vis Pakistan, though Delhi has apparently not at this time made the decision to spend the money (and political capital) to deploy such a force.[11]

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10 Jaswant Singh, 'Against Nuclear Apartheid,' *Foreign Affairs*, vol. 77, no. 5, September/October 1998, pp. 41-52.

11 G. Balachandran, 'Nuclear Weaponisation in India,' *AGNI Studies in International Strategic Issues*, vol. 5, no. 1, January-April 2000, pp. 37-50. See also Gregory S. Jones, *From Testing to Deploying Nuclear Forces: The Hard Choices Facing India and Pakistan*, Report IP-192 (Santa Monica, Calif.: RAND, 2000); and Sumit Ganguly, 'Potential Indian Nuclear Forces Postures', *Cooperative Monitoring Center Occasional Paper* 19 (Albuquerque, NM: Sandia National Laboratories, January 2001).

The international community has a strong interest in seeing India and Pakistan honour their commitment to formalise deterrence at the lowest possible levels and not to commence a nuclear arms race. The Permanent Members of the UN Security Council have pressed them to do so, and indeed have expressed their strong preference that India and Pakistan revert to their non-nuclear status and join the NPT as non-nuclear states.[12] China took the lead in formulating the Council's resolution in this regard. Many Chinese experts believe that the United States has been too quick to compromise through abandoning the international effort to sanction and punish India for its nuclear break-out. Some Chinese experts also believe that Washington tacitly supports Delhi's nuclear ambitions as part of a strategy to encircle and contain China. Many in China continue to hope that a firmer line with India could induce a decision in Delhi to abandon the weapons development programme. American experts tend to be sceptical that such pressure would be effective in this regard. Moreover, they are critical of China's past record in supporting Pakistan's nuclear programme and question the depth of Beijing's commitment to a reversal of nuclear developments on the subcontinent.[13] The Clinton administration hoped that some limited re-engagement of Indian political leadership would demonstrate American respect for India despite Washington's objections to Delhi's nuclear policy choices. Russia's military assistance to India is an important additional facet of this unfolding strategic dialogue, with Moscow seeking further arms sales and enhanced political stature through its dealings with Delhi. These developments fuel Beijing's concerns about the effectiveness of international efforts to contain nuclear proliferation in South Asia.

We must consider also the possible consequences of a nuclear crisis in South Asia – for the subregion and for the rest of Asia (and indeed perhaps globally). It is widely understood that a nuclear war would have terrible consequences for the people of South Asia and for anyone under the nuclear fallout. Such a war would also generate substantial international pressure on the United Nations Security Council to take dramatic steps to terminate the war at the earliest possible moment – and to assist with the terrible clean-up to follow. But there are other possibilities worthy of consideration. A near-war – a military crisis under the nuclear shadow – might have lessons

12 United Nations Security Council Resolution 1172, 6 June 1998.

13 Shirley A. Kan, *China's Compliance With International Arms Control Agreements*, Report for Congress (Washington, DC: Congressional Research Service, updated periodically).

similar to the US-Soviet Cuban missile crisis of 1963, impressing each side with the urgency of avoiding the risks of nuclear war. Such a crisis is not inconceivable, given the risk that one or both sides might be emboldened to undertake military activities at the conventional level, in the belief that the nuclear dimension would prevent a strong reaction by the adversary. It is possible that Pakistan's escalation of the Kashmir conflict in 1999 reflected just such an assessment; some believe further that the partial de-escalation of the conflict in autumn 2000 reflected an assessment in both Delhi and Islamabad that nuclear risks should not be taken regarding Kashmir. We should also consider the consequences of a prolonged cold peace in South Asia – and the lesson that might send to others that nuclearisation has stabilising and pacifying effects, and that these outweigh the risks of nuclearisation.

North-East Asia

In North-East Asia, the highest visible nuclear concern has for many years been the Democratic People's Republic of Korea (DPRK or North Korea). Nuclear ambitions there date back many decades – to the late 1950s, when North Korea and the Soviet Union agreed to establish a joint nuclear research institute at Yongbyon.[14] In December 1991 North and South Korea signed a Joint Declaration on the Denuclearisation of the Korean Peninsula, by which they pledged not to test, produce, receive, possess, deploy, or use nuclear weapons or to possess nuclear reprocessing and uranium enrichment facilities.[15] At approximately the same time, the United States withdrew all nuclear weapons from South Korea (as indeed from all overseas locations outside Europe), thereby removing one pretext that North Korea had used to delay signing its safeguards agreement with the International Atomic Energy Agency (IAEA). Indeed, this action seemed central to Pyongyang's signature of the safeguards accord in 1992. But subsequent IAEA inspections raised a series of questions about North Korea's accounting of its spent fuel and its refusal to allow inspections of two suspected nuclear waste sites.

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14 Kongdan Oh, 'Nuclear Proliferation in North Korea', in W. Thomas Wander and Eric H. Arnett (eds.), *The Proliferation of Advanced Weaponry: Technology, Motivations, and Responses* (Washington, DC: American Association for the Advancement of Science, 1992), pp. 165-76.

15 For a description, see *Arms Control Today*, vol. 22, no. 2, March 1992, p. 26. Discussed in Mack, op. cit. in note 6, pp. 55-6.

On 12 March 1993, North Korea announced its intention to withdraw from the NPT, effective 90 days later.

Nearly eighteen months later, after steadily mounting crisis, punctuated at one point by a CIA estimate that North Korea may have produced one or two nuclear weapons and at another point by the sudden death of Kim Il Sung, the United States and North Korea concluded an 'Agreed Framework' intended to produce an overall settlement of the nuclear issue. As seen in Washington, the framework was the alternative to war. As viewed in Beijing, talking and negotiating rather than coercing were the best approach to resolving the crisis. The Framework commits both sides to cooperate to replace North Korea's graphite-moderated reactors and related facilities with more proliferation-resistant light-water reactor power plants, to move toward full normalisation of political and economic relations, and to work together for a Korean peninsula free of nuclear weapons. It also commits the DPRK to open all sites to inspection before delivery of key nuclear components for the new reactors, with the old equipment being dismantled after completion of the contract. The Korean Peninsula Energy Development Organisation was created to fund these endeavours and to provide supplemental fuel shipments to North Korea during the construction phase.

To a significant degree, the Agreed Framework reflected the widespread expectation in Washington that the North Korean regime would collapse before the reactors would be completed.[16] The regime has proved more long-lived than many in Washington expected. The nuclear problem in North Korea appears to be easing slightly, with Pyongyang's gradual opening to Seoul and the beginning of a dialogue with Washington on the future of its missile programme. The as yet incomplete implementation of the Agreed Framework has appeared useful in attenuating North Korea's pursuit of weapons capabilities. But the nuclear problem is far from resolved and the Bush administration faces some difficult choices about whether and how to continue with its predecessor's approach.[17] And whether the Agreed

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16 Michael Mazaar, *North Korea and the Bomb* (London: Macmillan, 1995), and Leon V. Sigal, *Disarming Strangers: Nuclear Diplomacy With North Korea* (Princeton, NJ: Princeton University Press, 1998).

17 Prior to his appointment as Secretary of Defense, Donald Rumsfeld indicated his general opposition to the Framework. 'Our present nuclear agreement with North Korea unfortunately does not end its nuclear menace. It merely postpones the day of reckoning.' From remarks to the Heritage Foundation, 'Strategic Imperatives in East Asia,'

Framework actually succeeded in freezing the DPRK's programme is hotly debated.[18]

But the Korean nuclear question cannot be reduced to a singular focus on North Korea. South Korea too has had nuclear ambitions. It reportedly attempted to acquire nuclear weapons technologies prior to joining the NPT in 1975 and curtailed its weapons programme in response to US pressure.[19] An ally of the United States, it is the beneficiary of a nuclear-backed guarantee of its security. This guarantee has apparently satisfied Seoul's nuclear concerns, given the absence of signs of renewed interest in nuclear weapons despite the long unresolved nuclear issue in North Korea. There is, however, periodic interest in development of an ability to reprocess some of its growing spent fuel stockpile, which could conceivably be diverted to weapons purposes at some future time.

But the reunification of Korea seems increasingly inevitable – and with it a basic question about its long-term nuclear status. Many in the United States seem to take it as a given that a reunified Korea will remain non-nuclear and aligned with the United States. These assumptions are not widely shared in Asia. Koreans are fiercely independent and have a thousand-year history as a major factor in the Asian security situation. Some Koreans in both North and South speak privately about retaining or acquiring nuclear status after

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3 March 1998. Former Secretary of Defense William Perry, in his capacity as US North Korea Policy Coordinator and Special Advisor to the President and the Secretary of State, in his 1999 review of the Framework, expressed his own concerns about its long-term viability. See 'Review of United States Policy Toward North Korea: Findings and Recommendations,' October 12, 1999.

18 An expert group reporting in late 1997 gave it an overall grade of C/C+. See Ralph A. Cossa, *Monitoring the Agreed Framework: A Third Anniversary 'Report Card'* (Honolulu, HI: Pacific Forum CSIS, October 1997). See also *Nuclear Nonproliferation: Implementation of the US/North Korean Agreed Framework on Nuclear Issues*, GAO/RCED/NSIAD-97-165, Report to the Chairman, Committee on Energy and Natural Resources, US Senate (Washington, DC: General Accounting Office, June 1997); and David Albright et al., *Solving the North Korean Nuclear Puzzle* (Washington, DC: Institute for Science and International Security, 2000).

19 See 'Seoul Planned Nuclear Weapons Until 1991,' *Jane's Defence Weekly*, 2 April 1994, p. 1; Selig Harrison's discussion of South Korea in 'Japan and Nuclear Weapons,' in Harrison (ed.), *Japan's Nuclear Future: The Plutonium Debate and East Asian Security* (Washington, DC: Carnegie Endowment for International Peace, 1996), pp. 3-5; and Mack, *Proliferation in Northeast Asia*, pp. 19-23.

reunification. This is a development that would have far-ranging repercussions.

One place where these would be felt most immediately is Japan. To be sure, anti-nuclear sentiment is deeply ingrained in the Japanese body politic, given the experience of nuclear attack by the United States in 1945. Japan embraces a policy of 'three no's' – 'Japan will not manufacture or possess nuclear weapons or allow their introduction into this country.'[20] This policy dates to 1968, when the then Prime Minister Sato offered this pledge in the form of a resolution on the floor of the Diet, and this has been reaffirmed by each subsequent government in Tokyo. Japan is a party in good standing to the NPT. Moreover, any potential demands for a nuclear deterrent appear today to be adequately met by the US nuclear umbrella.

But Japan cannot be overlooked in any review of alternative nuclear futures in Asia. In fact, its nuclear ambitions are a matter of intense speculation in the region. The suspicion can be traced in part to the internal Japanese debate accompanying the formulation of the 'three no's'. In considering the NPT, Sato reportedly commissioned a secret study to examine whether it would be possible and desirable for Japan to develop independent nuclear forces. The study allegedly concluded that such developments were undesirable but also that there were 'no technical impediments' to such forces, especially given the accumulation of plutonium envisioned in Japan's civilian nuclear power programme. Sato himself is quoted as arguing privately less than three weeks after his Diet statement that 'I do not regard it as a complete system of defence if we cannot possess nuclear weapons in the era of nuclear weapons.' Two years later, future prime minister Yasuhiro Nakasone, then director of Japan's Defence Agency, argued in a White Paper that 'in view of the danger of inviting adverse foreign reactions and large-scale foreign war, we will follow the policy of not acquiring nuclear weapons *at present*' [emphasis added]. There are many signs that this internal debate did not end with Japan's ratification of the NPT. Indeed, even some senior Japanese officials have spoken recently about reconsidering possession of nuclear weapons.[21]

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[20] These and subsequent points are taken from Harrison, op. cit. in note 19, pp. 3-44.

[21] Michiyo Nakamoto, 'Minister quits over Japanese N-arms call,' *Financial Times*, 21 October 1999, p. 6.

Suspicion can also be traced in part to the nuclear infrastructure that has come together since the 1960s. From a purely technical point of view, Japan is today the pre-eminent model of a state with a virtual weapons production capability.[22] It has a substantial nuclear energy sector generating a growing stockpile of plutonium (under full safeguards).[23] It also possesses the requisite engineering and scientific expertise to quickly assemble a nuclear arsenal.[24] And it has advanced missile systems and satellites in production for commercial purposes but conceivably of use to a future nuclear force. No amount of reassurance from Japanese politicians seems able to dispel the concerns generated by this infrastructure. Little notice is taken, however, of the growing opposition to nuclear power in Japan, as a result of its very high expense and a number of recent accidents.[25]

Suspicion also has a certain historical basis associated with Japan's Imperial past and concerns about a future remilitarisation of Japanese society. Americans and Europeans by and large do not fully realise how little progress has been made in healing the divisions of colonialism and war of the century now past, or how many nuclear suspicions exist in a region where nuclear matters are still largely for discussion only behind closed doors.[26]

Thus it should not be surprising that Chinese experts generally do not share the benign view of Japanese nuclear ambitions common in the West. In fact, many in China believe that the United States is assisting Japan to develop a nuclear break-out capability to be unveiled at a time when the alliance ruptures. In contrast, many Americans believe that the US security guarantee to Japan and military presence there are helpful for preventing any

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22 Michael J. Mazaar, 'Virtual Nuclear Arsenals,' *Survival*, vol. 37, no. 3, Autumn 1995, pp. 7-26.

23 Motoya Kitamura, 'Japan''s Plutonium Program: A Proliferation Threat?' *Nonproliferation Review*, Winter 1996, pp. 1-16; and Eiichi Katahara, 'Japan's Plutonium Policy: Consequences for Nonproliferation,' *Nonproliferation Review*, Fall 1997, pp. 53-61.

24 One indicator of this ability is the heavy use of supercomputers by Japanese facilities engaged in research on nuclear energy and physics. By one tally, at least eight supercomputers are in use. See http://www.netlib.org/benchmark/top500.html.

25 Robert A. Manning, 'PACATOM: Nuclear Cooperation in Asia,' *Washington Quarterly*, vol. 20, no. 2, Spring 1997, pp. 221-2.

26 Gerrit W. Gong (ed.), *Remembering and Forgetting: The Legacy of War and Peace in East Asia* (Washington, DC: Center for Strategic and International Studies, 1996).

possible emergence of a real Japanese interest in nuclear weapons. This difference of view clouds perceptions of the role of the US military presence in Asia and its utility in dampening nuclear proliferation incentives in Japan, South Korea, and elsewhere, a role which China may appreciate. China would prefer greater transparency from Tokyo about the motives driving its heavy emphasis on nuclear energy and the associated build-up of fissile materials. China is also strongly motivated by a desire not to see the US-Japan defence relationship turned against China – or to see Japan drawn into US efforts to protect Taiwan. Such developments are suggested, however, by the revisions to the bilateral US-Japanese defence guidelines that were formalised in 1997, and their ambiguity about the precise geographic scope of future Japanese military operations.[27]

Looking to the future, what might lead Japan to develop its own nuclear weapons? The conditions under which Japan might choose to have its own nuclear deterrent are perhaps remote but are also far from inconceivable. They would include the emergence of a nuclear-armed and unified Korea, the breakdown of the global non-proliferation regime, the cessation or dramatic reformulation of the security alliance with the United States and perhaps also other unwelcome developments in Japan's security setting. A potential dramatic build-up of Chinese nuclear missiles capable of reaching Japan is sometimes mentioned privately by some Japanese as a possible motivator of new nuclear anxieties in Tokyo.

Taiwan

Over the years leaders in Taipei have hinted at nuclear weapons ambitions. In 1994 Lee Teng-hui, Taiwan's then leader, stated that Taiwan had planned to acquire nuclear weapons in the past and suggested further that 'we should re-study the question from a long-term point of view'.[28] The United States

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27 See 'Completion of the Review of the Guidelines for US-Japan Defense Cooperation,' 23 September 1997, issued by the Office of the Assistant Secretary of Defense for Public Affairs, Washington, D.C., and available at http://www.defenselink.mil/news/Sep1997/b09231997_bt50797b.html.

28 His comments came in response to the firing by the People's Liberation Army of ballistic missiles across the Taiwan strait, described at the time by officials in Beijing as a test of new systems but broadly interpreted as aimed at influencing the political

has reportedly pressured Taiwan over the years to refrain from seeking to acquire nuclear weapons and the requisite technologies and material.[29] Thus in July 1995, Lee Teng-hui promised not to pursue nuclear weapons.[30] Taiwan's nuclear strategy has been described by expert Gerald Segal as one of 'nervous and intense ambiguity'.[31] In summer 1998 Segal reported assertions by Taiwanese officials that 'existing weapons-grade materials could be weaponised in 3-4 months'.[32] However, the quantities available must be sharply constrained by the fact that Taiwan possesses neither enrichment nor reprocessing facilities.

From Beijing's perspective, Taiwanese acquisition of nuclear weapons could well be a *casus belli*. Beijing would also view Washington's role in such a development as necessarily complicitous – and indeed duplicitous.

Elsewhere in Asia

The nuclear situation in South-East Asia is far less complicated. No country in the region currently expresses any potential interest in nuclear weapons. All are members of the South-East Asia Nuclear-Weapon-Free Zone. But there are some important bits of nuclear history in the region that merit inclusion in this review. In 1964 and 1965 a number of statements were made by senior Indonesian officials, including President Sukarno, indicating that Indonesia would be acquiring nuclear weapons. Indonesia reportedly sought the assistance of a number of countries and may have taken steps to develop a test site. There has also been some speculation that Indonesia may have secured a Chinese commitment to test an Indonesian device, plans that may have fallen apart with the coup and countercoup that eventually

debate in Taipei. See Alice Hung, 'Taiwan: Taiwan Says It Will Study Need for Nuclear Arsenal,' Reuters, 28 July 1995.

29 David Albright and Corey Gay, 'Taiwan: Nuclear Nightmare Avoided,' *Bulletin of the Atomic Scientists*, vol. 54, no. 1, January/February 1998, pp. 54-60; Mack, *Proliferation in Northeast Asia*, pp. 7-11; and Garrity, 'Nuclear Weapons and Asian-Pacific Security,' p. 49.

30 Cited in Joyce Liu, 'Taiwan Won't Make Nuclear Weapons, Says President,' Reuters, 31 July 1995. See also Walter Pincus, 'Investigators Now Focusing on Lee's Ties to Taiwan,' *Washington Post*, 24 December 2000, pp. A-3, 14.

31 Gerald Segal, 'Taiwan's Nuclear Card,' *Asian Wall Street Journal*, 4 August 1998.

32 As reported in ibid.

brought Suharto to power.[33] As the only country in the subregion with a nascent nuclear power industry, Indonesia is sometimes mentioned as a country of long-term nuclear weapons concern. Prolonged economic and political crisis has undoubtedly greatly forestalled the investments that would bring such capabilities into being.

Another country with a largely overlooked but also short-lived nuclear interest is Australia. It reportedly attempted to procure nuclear weapons from Britain in the late 1950s and early 1960s and then moved to develop indigenous production capabilities before the NPT entered into force (and which Australia joined in 1972).[34] Concerns in the 1980s about possible Indonesian nuclear ambitions reportedly led to a debate within the Australian government on a recommendation to seek to 'reach the threshold of being able to assemble nuclear weaponry . . . in the shortest possible time', for which contingency plans were allegedly developed but not approved.[35]

In surveying the nuclear landscape in Asia, it is important not to overlook the nuclear history and potential of the Central Asian states. As former republics of the Soviet Union, they were for decades an integral part of a state with a robust nuclear arsenal. One country in the region – Kazakhstan – is a former possessor of nuclear weapons, having relinquished its residual possessions of the former Soviet arsenal upon independence. Some if not all of these countries also have vestiges of the old nuclear weapons complex of the former Soviet Union, as well as infrastructure for biological and chemical warfare and for long-range missiles.[36] A nuclear weapon-free zone has

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33 The United States was concerned enough about the possibility that Secretary of State Dean Rusk brought it up with Soviet Foreign Minister Gromyko at a meeting in September 1965. See Department of State, Memorandum of Conversation during USSR Foreign Minister Gromyko's Dinner for Secretary Rusk, 1 October 1965, Foreign Relations of the United States 1964-1968, vol. XI, p. 250. Further details are taken from a chronology assembled by Jim Walsh of the Belfer Center for Science and International Affairs at the John F. Kennedy School of Government of Harvard University. See also Robert M. Cornejo, 'When Sukarno Sought the Bomb: Indonesian Nuclear Aspirations in the Mid-1960s,' *Nonproliferation Review*, vol. 7, no. 2, Summer 2000, pp. 31-43.

34 Jim Walsh, 'Surprise Down Under: the Secret History of Australia's Nuclear Ambitions,' *Nonproliferation Review*, vol. 5, no. 1, Fall 1997, pp. 1-20.

35 Mack, *Proliferation in Northeast Asia*, p. 2.

36 *Nuclear Successor States of the Soviet Union: A Status Report on Nuclear Weapons, Fissile Materials, and Export Controls* (Washington, DC: Monterey Institute of International Studies and Carnegie Endowment for International Peace, March 1998).

been proposed for the region and has been under discussion for a number of years now.[37] If it comes into force, it could signal a reduction in the likelihood of future developments that would have a negative impact on nuclear factors.

In none of these subregions does it appear that the risks of nuclear acquisition are at all significant. But the existence of prior nuclear ambitions suggests the possibility that such ambitions might be rekindled in some future setting. Presumably, this would require some broader breakdown of the nuclear order elsewhere in Asia. The collapse of the NPT could conceivably loosen some of the bounds on these states. A major war somewhere in the region could also be a catalyst for new nuclear ambitions.

VI.3 The major power overlay

The nuclear dynamic in Asia cannot be reduced to a question of developments in the subregions. Overlaying the entire region are the strategic relations of China, Russia and the United States. The end of the Cold War brought with it a sharp change for the better in this regard, in terms of a de-escalation of the nuclear stand-off between the superpowers in Asia and a draw-down of both American and Soviet/Russian nuclear forces in the region, as already discussed. Moreover, the end of the Cold War also brought with it Sino-Russian initiatives to improve relations, including signature of a bilateral no-first-use declaration and of a demilitarisation measure for their long common border.

But this major power aspect appears to be entering a more dynamic period. This dynamism is driven by three factors.

- One is the recommitment to nuclear weapons in Russian military doctrine and national security strategy. Although policy-makers in Moscow continue to predict a decline in the number of deployed strategic nuclear weapons, Russia's nuclear arsenal promises to remain very large for a long time to come. Moreover, shrinkage at the strategic level is not being matched by reductions in non-strategic nuclear weapons, as Rus-

[37] Oumerserik Kasanov, 'On the Creation of a Nuclear-Weapon-Free Zone in Central Asia,' *Nonproliferation Review*, Fall 1998, pp. 144-7.

sia continues to field and possess large numbers of tactical and theatre systems. Furthermore, Russia's theatre and perhaps intercontinental capabilities may well increase in numbers if Washington chooses to abrogate the Anti-Ballistic Missile (ABM) Treaty and if, in response, Moscow chooses to withdraw from the treaty on Intermediate-range Nuclear Forces (INF). This latter is a subject of intense concern in China, which could feel an immediate and substantial new nuclear challenge from modernised Russian INF. Moscow's explicit embrace of a first-use nuclear doctrine in its new military strategy only aggravates Beijing's concerns in this regard, given the existence of a bilateral Sino-Russian agreement codifying the no-first-use pledge.

- The second factor is the modernisation of Chinese strategic forces. This modernisation began decades ago and will continue into the future, as China seeks more technically sound systems as well as strategic stability in an evolving security environment. In comparison to the arsenals of the United States and Soviet Union/Russia, China's arsenal has been quite modest in size and sophistication.[38] Modernisation has led to the deployment of new short- and medium-range ballistic missiles.[39] It will also bring improvements to China's long-range, intercontinental capabilities with the deployment of mobile, solid-fuelled missiles.[40] Moreover, in Beijing as in Moscow, there is a wide-ranging debate about the role of nuclear weapons in national security strategy.

- The third factor is the movement by the United States to deploy ballistic missile defences. From an Asian perspective, the theatre and national

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38 China's recent Defense White Paper mentioned nuclear weaponry briefly: 'The Second Artillery Force has been equipped with short-range, medium-range, long-range and intercontinental missile systems, and has the capability of rapid reaction and mobile operations.' See 'China's National Defense in 2000,' Information Office of the State Council of the People's Republic of China, in *China Daily*, 17 October 2000, pp. 5-8.

39 According to Western media sources, that deployment may bring a total of 600 or more new Chinese short- and medium-range missiles to the field. See Brad Roberts, Robert Manning and Ronald Montaperto, 'China: The Forgotten Nuclear Power,' *Foreign Affairs*, vol. 79, no. 4, July/August 2000, p. 56.

40 Robert Manning, Ronald Montaperto and Brad Roberts, *China, Nuclear Weapons, and Arms Control: A Preliminary Assessment* (New York: Council on Foreign Relations, 2000). See also Bruce Stokes, *China's Strategic Modernization* (Carlisle, PA: Strategic Studies Institute of the US Army War College, 1998).

defence systems are equally important in terms of their impact on security perceptions and realities. This is discussed in further detail below.

VI.4 Alternative futures

This survey suggests that the nuclear future in Asia may be quite unlike the nuclear past. To be sure, the nuclear status quo could conceivably remain in place for a long time to come, without any increase or decrease in the number of nuclear-armed states or any substantial changes to the balance of power among existing nuclear forces. But we must recognise the large number of nuclear wild cards in the region. The number of states with latent capabilities is large and growing. The number of states with former ambitions is also impressive. We must also recognise the difficulty of isolating nuclear developments in one subregion from elsewhere in Asia. This points to the possibility that some catalytic event might set in motion a chain of nuclear developments deeply unsettling to the region. For the purpose of this analysis, we wish to frame three primary alternatives for the path ahead in Asia: best case, worst case, and reasonable middle.

The best case would comprise the following dynamics: (1) a resolution of the Korean political issue in a way that finally and definitively denuclearises the peninsula; (2) a halt to further nuclear weapons development in South Asia and a decision by India and Pakistan to join the non-proliferation regime as non-nuclear states; (3) resolution of the cross-strait issue in a way that is acceptable to both sides; and (4) continued threat and risk reduction among the major powers in a way that sustains arms control and strategic stability and perhaps enables ultimate fulfilment of their commitment to relinquish nuclear weapons in the context of general and complete disarmament as envisaged in the NPT.

The worst case would comprise the following dynamics: (1) overt nuclearisation by North Korea followed by (2) the emergence of a nuclear-armed, reunified Korea; (3) arms racing behaviour by India and Pakistan, with spillover effects to its neighbours to their North and West; (4) a renewal of nuclear competition between Russia and China; and (5) an offence/defence arms race between China and the United States that, among other results, leads America's allies in East Asia to distance themselves from Washington and to acquire their own nuclear umbrella.

Is there a reasonable middle? It would necessarily comprise some mix of the dynamics noted above – a balance of positive and negative developments. The negative developments (i.e., the addition of new nuclear states) would have to occur in such a way as to have largely isolated repercussions for others. And the positive ones would have to be exploited so as to reinforce the belief of decision-makers across the region that the drift of history remains away from nuclear weapons.

VI.5 Shaping alternative futures

What will determine which nuclear future actually unfolds in Asia? There are many catalysts to best- and worst-case results in the region. A war in or beyond the region could fundamentally transform perceptions about the value of nuclear weapons, the future of the security environment and the role of the United States, China and Russia in shaping developments there. A nuclear accident could have an equally wide-ranging effect, generating sharp new political demands to reduce nuclear risks. For our purposes, we identify three main factors that will have a central role in shaping Asia's nuclear future: US ballistic missile defences (BMD), arms control and US-PRC political relations.

US BMD

The impact of US ballistic missile defences – both national missile defence (NMD) and theatre missile defence (TMD) – on the Asian security environment has been hotly debated, though seemingly more so in Asia than in Washington.

Advocates of BMD generally argue as follows. Ballistic missile proliferation, as evident in North Korea and elsewhere, is destabilising the region, not least because missiles are being acquired by precisely those states with strong nuclear weapons ambitions. Were nuclear-tipped missiles to be used successfully by North Korea as tools of coercion, Washington would find its credibility as a security guarantor called into question, a fact that would lead to new nuclear proliferation pressures, especially among current US allies. Were such missiles to be used successfully in war to attack US military forces or cities in the United States or among US allies, a terrible war of

counter-escalation would begin that would also have dire consequences for both nuclear proliferation and US credibility. Supporters of ballistic missile defences, in both the United States and Asia, believe that those defences can help to negate these destabilising effects of nuclear and missile proliferation by reassuring US allies of its credibility as a guarantor and by ensuring nuclear aggressors that their acts of war will not be tolerated. Advocates of BMD in Washington generally see the potential stabilising effects of such defences vis-à-vis 'states of concern', or 'rogues', as outweighing any potential destabilising effects vis-à-vis the major powers, given the fact that the major powers are not enemies even if their interests sometimes compete.

Few Asians see these careful arguments about strategic stability in Asia as being especially decisive in Washington's thinking. Instead, what impresses them most is the sense of national vulnerability that seems to be motivating much of the commitment to NMD. They tend to see the US legislative commitment to national missile defence as a knee-jerk response to North Korea's test-firing of the long-range *Taepo Dong* missile, a perception reinforced by the fact that the version passed by the House of Representatives ran all of one sentence ('It is the policy of the United States to deploy a national missile defence'). And they tend to fear that Washington will embrace such defences as a panacea before it understands the consequences for Asia and indeed for its own interests in Asia.

The perception that US BMD will have a benign effect on the Asian security environment is not universally shared in Asia (just as it is not universally shared in Washington). To be sure, US allies have expressed some support for ballistic missile defences; many in Tokyo and Seoul see such defences as necessary in the face of Pyongyang's growing missile capabilities. And leaders in Taipei view improved theatre missile defences as a valuable counter to the People's Liberation Army's missile build-up. But even in these cities support for US ballistic missile defences is far from universal.

In many quarters – and especially in China – a different set of perceptions has taken hold.[41] Experts in China believe that Washington has exaggerated the ballistic missile threat to the United States. There is much criticism of the Rumsfeld Commission Report on the Ballistic Missile Threat and the

[41] Shen Dingli, 'Ballistic Missile Defence and China's National Security,' *Jane's Special Report*, March 2000, pp. 31-8.

corresponding view in the 1999 US National Intelligence Estimate (NIE) that the emergence of new ballistic missile threats to the United States should be measured in a matter of years not decades.[42] Departing from prior assessments by the CIA and others, this view of the threat seems to attribute to proliferators a technical ability to develop and deploy missiles – and to enlist foreign assistance in doing so – that many question. There is also much scepticism in Asia that small states would ever fire nuclear-tipped missiles at the United States or its allies, recognising Washington's ability to make a swift and punishing reply by both conventional and nuclear means. There is similar scepticism that a country like North Korea could use such threats in time of war to cause Washington to compromise any of its vital interests.

Asian experts also focus on the kinds of reactions that Moscow and Beijing will be pressured to take in response to Washington's new shield, even if that shield is not overtly directed at them. Because the security interests of both Russia and China will be directly and indirectly affected by NMD deployment, they are likely to consider wide-ranging measures to protect those interests and maintain the stability they desire as Washington unsettles their security environment by deploying such defences. These reactions are likely to have a significant effect on Asia's nuclear landscape.

For Russia's part, NMD raises basic concerns about the credibility of its strategic forces, given its financial inability to build and deploy its own improved defences. It is also deeply concerned about the break-out potential inherent in Washington's pursuit of a robust theatre missile defence in addition to a limited national defence. US NMD deployment compels Russia to retain large numbers of nuclear weapons and perhaps also to build new ones, at a time when it badly needs to further undertake strategic nuclear disarmament. China's own security would of course be negatively affected by an end to the bilateral US-Russian arms control and risk reduction processes, and by a resurgence in Russia's nuclear arsenal.

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[42] See National Intelligence Council, 'Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015,' September 1999, http://www.cia.gov/cia/publications/nie/nie99msl.html, and Joseph Cirincione, 'Assessing the Assessment: The 1999 National Intelligence Estimate of the Ballistic Missile Threat,' *Nonproliferation Review*, vol. 7, no. 1, Spring 2000, pp. 125-33.

China's, concerns are more far-reaching. China views the NMD capability, even under the Clinton administration's most limited scheme, as completely neutralising its defensive deterrent. The 100 interceptors planned for deployment in Alaska under the so-called 'C-plus-one' architecture are certainly far more than necessary to deal with any potential ICBMs from states other than Russia and China, but far less than adequate to deter a determined attack from Moscow. However, a 100-interceptor force is the exact size, assuming a 4 to 1 interception rate, necessary to defeat some two dozen ICBMs – the number that the Western intelligence community believes China possesses.[43] China thus suspects that an important purpose of the NMD is to deny its strategic deterrent.

China views TMD with equal alarm, though of a different nature. In its perception, the deployment of such defences in Taiwan is expected to reinforce the drift toward independence there, thereby precipitating the military crisis that Beijing, Washington, and Taipei have long sought to avoid. The common American argument that such defences are a necessary counter to the build-up of short-range ballistic missiles on the mainland near the Taiwan Strait is seen in China as neither objective nor strategically sound – by overlooking the history of Washington's own missile and other military assistance to Taiwan and the growing imbalance of power that it has brought into being.[44] Chinese experts defend Beijing's new missile deployments as a way to redress this growing imbalance with the hope that this will bring closer the negotiated political resolution of the issue as envisaged in the Shanghai Communiqué long ago agreed by Beijing and Washington.

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43 The CIA puts the number at about 20. See Craig Cerniello, 'CIA Holds to Assessment of Ballistic Missile Threat to US,' *Arms Control Today*, vol. 28, no. 7, October 1998, p. 24, and, *SIPRI Yearbook 1999: Armament, Disarmament and International Security* (Oxford: Oxford University Press, 1999), p. 555. The International Institute for Strategic Studies in London has estimated the number as 15-20. See *The Military Balance 1999-2000* (Oxford: Oxford University Press, 1999), p.186.

44 The United States provides arms transfers to Taiwan to maintain its capacity for self-defence, though it is committed in the Shanghai Communiqué to reduce the quantity and quality of such arms over the long term. Such transfers are often hotly contested by Beijing, especially when high-technology systems are transferred, or when such transfers lead to very sharp disparities in specific combat areas, such as for example the air war, where Taiwan is understood to enjoy large advantages largely as a result of the transfer of advanced US fighter aircraft equipped with sophisticated missile attack systems.

There is an argument that China would modernise its strategic force whatever Washington chooses to do with ballistic missile defences, both national and theatre. However, the US NMD can shape China's strategic force in the new century to a larger-than-planned size – to America's disadvantage. It is not inconceivable that China might expand and MIRV its strategic missile forces to a total number of deployed warheads ten times higher than current levels.[45] A US intelligence report, 'Foreign Response to the US National Missile Defense Deployment', released in August 2000, warned also that 'China would deploy as many as 200 warheads by 2015' as a response.[46] China is also confident that it has the resources and technology to maintain a viable strategic force whatever Washington may choose to do with its defence system, though it would prefer not to be compelled to invest scarce resources in this way.[47] Washington's concern over Beijing's response is one of the reasons President Clinton deferred his decision on NMD deployment.

As China modernises to cope with US defences, there will be repercussions for other states in Asia. From a nuclear point of view, one of the most important will be India. In 1999 India published its draft report on nuclear doctrine.[48] The doctrine foresees that '[India's nuclear] forces will be based on a triad of aircraft, mobile land-based missiles and sea-based assets'. Though it is as yet unclear how many nuclear weapons India would need to construct its deterrence, it is quite obvious that China figures in India's nuclear calculation. If Beijing is compelled to construct a much larger force to deal with Washington, Delhi will be compelled to construct a larger force

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45 Shen Dingli, 'Security Issues between China and the United States,' paper delivered to the Workshop on the State of Sino-American Relations, Institut Français des Relations Internationales, Paris, 21-22 October 1999; and Li Bin, 'The Impact of US NMD on Chinese Nuclear Modernization', Tsingua University, Beijing.

46 Steven Lee Myers, 'Intelligence Report Says US Missile Defense May Stimulate China,' *New York Times*, 10 August 2000.

47 Various countermeasures could be employed to deal with missile defense system. These include increases in the number of deliverable warheads, whether through deployment of missile launchers or MIRV-ed warheads, as well as improvement of penetration aids and measures to enhance the survivability of the force, etc. See Andrew M. Sessler et al., 'Countermeasures: A Technical Evaluation of the Planned US National Missile Defense System,' Union of Concerned Scientists and MIT Security Studies Program, April 2000.

48 Draft Report of National Security Advisory Board on Indian Nuclear Doctrine, 17 August 1999.

to compete with Beijing. Such a chain reaction would touch Islamabad as well. Such a regional nuclear arms race in South Asia would be a potential indirect consequence of Washington's NMD push to deal with 'rogue states' in North-East Asia and the Middle East. Moreover, facing a strategic defence/offence competition between major powers in Asia, others in the region would be caught in the middle as they are asked to choose sides, much as they would prefer not to. This view of the interconnected nature of BMD's possible repercussions in Asia was reportedly echoed by the US intelligence community's August 2000 survey of the problem.[49]

There is, then, a good argument that the US BMD will play a decisive role in shaping Asia's nuclear future – and not for the best.[50] The end of Cold War confrontation seemed to promise a bright future of threat- and risk-reduction; instead, we may well see a future that is much dimmer – or even dark.

Meanwhile NMD is not the only factor shaping the nuclear future in Asia. Even if the United States makes a decision not to deploy national missile defences, the nuclear equation in Asia is still very dynamic. This points us to other key factors shaping that future.

Arms control

The cornerstone of the effort to combat nuclear proliferation is of course the NPT. The NPT is central to the ultimate resolution of the Korean nuclear issue. It is also important for dissuading Japan and others from moving further towards a weapons capability. Alas, the long-term health of the NPT cannot be taken for granted. In many parts of Asia (especially South and South-East Asia) there was reluctance to see the treaty indefinitely extended at the 1995 Review and Extension Conference, given the unequal rights it conveys on states that acquired nuclear weapons prior to 1967. This unhappiness of some Asian leaders with the NPT has become even more pro-

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49 Myers, 'Intelligence Report Says US Missile Defense May Stimulate China,' *New York Times*.

50 For the preliminary outlines of a net assessment of the potential negative and positive impact of US missile defences on Asian stability, see Brad Roberts, 'US Ballistic Missile Defense: Implications for Asia', in Jasjit Singh (ed.), *The Future of Asian Security* (Delhi: Insitute for Defence Studies and Analyses, forthcoming).

nounced with the failure of the US Senate to support ratification of the CTBT. China also has not ratified the Treaty, though it seems prepared to do so as soon as the United States does. Despite their sometime differences on non-proliferation – and especially on the CTBT – China and the United States were able to find common ground at the 2000 NPT Review Conference, along with the other permanent members of the United Nations Security Council, in a statement of interests and principles for carrying forward the treaty implementation process.[51]

The global treaty regime also has an important potential role to play in South Asia. Both India and Pakistan have promised to consider becoming parties to the CTBT at some future time, which would be very helpful in securing the type of restraint that both have promised but not yet delivered. A Fissile Material Production Ban could further restrain their ability to produce more weapons-grade fuel for their arsenals, while restraining all the other states as well.

Regional arms control approaches also have a role to play. The Treaty on the South-East Asia Nuclear-Weapon-Free Zone, or Bangkok Treaty, was signed in 1995 and entered into force in 1997. And as noted earlier, one is also in full discussion in Central Asia. In North-East Asia, Mongolia approved its nuclear weapon-free zone status in 2000, becoming the first and sole country in the world as a 'single-state-nuclear-weapon-free' zone. Proposals have been made for a full North-East Asia nuclear weapon-free zone.[52]

The central arms control issue in Asia today is not the search for new agreements but the implementation of existing ones. If they are fully and effectively implemented, the risks of further nuclear proliferation and of renewed competition among the nuclear weapons states will be greatly reduced. If they collapse, many states in the region may find it necessary to

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51 Statement to the 2000 NPT Review Conference by the Delegations of France, The People's Republic of China, The Russian Federation, The United Kingdom of Great Britain and Northern Ireland and The United States of America, New York, 1 May 2000.

52 Zachary Davis, 'The Spread of Nuclear-Weapon-Free Zones: Building a New Nuclear Bargain,' *Arms Control Today*, vol. 26, no. 1, February 1996, pp. 15-19; John Endicott, 'A Limited Nuclear-Weapons-Free Zone in Northeast Asia: A Track-II Initiative,' *Disarmament Diplomacy*, no. 35, March 1999, pp. 19-22.

develop nuclear capabilities as a hedge against a broader collapse of regional order. If they are weakly implemented, an increasing number of states seem likely to seek latent capabilities as a form of hedge.

The key to effective arms control implementation in Asia is cooperation between Washington and Beijing. Leaders in both capitals profess a strong commitment to the global treaty regime and to the regional measures, but whether they can cooperate sufficiently to meet the requirements of the regime is an open question. Washington has not been especially effective at leading multilateral arms control processes, given its heavy focus on US-Russian bilateral arms control, the apparent low regard of some in Washington for multilateral arms control and the role of an active group of anti-arms controllers in the US Senate over the last decade. And Beijing looks more ambivalent today than it was five years ago about the promise of arms control, as a result of Washington's missile defence programme. Some in Beijing see Washington's arms control and non-proliferation effort as little more than another way to promote American hegemony. But China is committed to fulfilment of its treaty obligations and seeks ways to uphold the treaty regime for strategic stability, though it cannot support implementation of the regime in discriminatory ways that do little more than bolster America's friends while punishing those it deems rogues.

The US-PRC relationship and Asia's nuclear future

A third and potentially equally decisive factor – as already oft foreshadowed – is the political relationship between China and the United States. The relationship between the two is volatile, given China's rising power, America's global role, the flashpoint in Taiwan, and a history of significant ups and downs in political relations. But they also have a number of common interests that are too often overlooked in the debate about competing interests.

In 1997, Presidents Jiang Zemin and Bill Clinton formulated the bilateral relationship as 'a constructive strategic partnership toward the 21st century'. Such a formulation has been much debated ever since its inception. In the United States, there is a significant division between those who see China as a partner and those who see it as a competitor, with the result that policy is haphazard. President George W. Bush has claimed that he views this

relationship as a competition though not necessarily as a rivalry. Secretary of State Colin Powell has spoken about the need to respect the interests of other major powers and cooperate with them in areas of common interest. Secretary of Defense Donald Rumsfeld has argued, about China that 'Containment is not realistic. "Engagement", per se, is meaningless . . . We will continue to be "engaged" with China. The real question is not whether, but how, and to what ends.'[53]

China too is divided. Some believe that a partnership with the United States is essential if China is to enjoy a prolonged period of peace to allow it to focus on its internal developmental needs. Indeed, the United States is a highly important partner for China's economic development: it is one of the most important sources of investment and technology – and a significant export destination. But others see the United States as opposed to China's emergence as a major and independent power, and as pursuing a strategy of encirclement and containment. Adherents of this view see the bombing of the Chinese Embassy in Belgrade as the latest hard evidence for this theory.[54]

As noted above, the core strategic issue in this bilateral relationship today is BMD. China and the United States have fundamentally competing views concerning national missile defence. Washington deems it stabilising by helping to prevent rogue blackmail, while Beijing sees BMD as deeply unsettling of the Asian strategic landscape. While some in Washington question whether China is a power bent on overturning the existing world order, many in Beijing question whether America is not in fact the non-status quo power, since it seeks through BMD to extricate itself from the balance of power that for decades has defined the peace among the major powers. China does not want to live in a world in which America is free to coerce others. Especially in the context of Taiwan, China has a unification

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53 Rumsfeld, 'Strategic Imperatives in East Asia,' 3 March 1998.

54 Tao Wenzhao, 'A Foreign Policy Debate in China After the Tragic Bombing of the Chinese Embassy in Belgrade,' a discussion paper prepared for a conference on China and the United States: Long-Term Visions of Regional Security, cosponsored by the Asia Pacific Center for Security Studies and Pacific Forum CSIS, 19 April 2000. Tao is deputy director of the Institute of American Studies at the Chinese Academy of Social Sciences, Beijing.

mission to fulfil while the United States has, in Beijing's view, prevented this from taking place for half a century.[55]

Also at the heart of the US-PRC relationship is Taiwan. Mainland China views Taiwan as a renegade province. It observes that many in Washington seem to support the drift to independence in Taiwan, without recognising that formal independence would precipitate war – and without seeming to recall that the United States formally recognises that Taiwan is a part of China. China is deeply concerned by the apparent drift of developments in policy in both Taipei and Washington. For the United States, the Taiwan issue is a test of Beijing's commitment to resolve the problem peacefully; it is also seen as a test of Washington's commitment to democracy and its willingness to stand up to a communist government in Beijing. Let us recognise the potential of a future crisis to unfold under the nuclear shadow – a possibility that deserves careful analysis in both countries.

In any potential physical conflict with Taiwan, Beijing is prepared for possible US military intervention, in one way or another. This may be military intervention, as mandated by the Taiwan Relations Act[56] or by the House version of the Taiwan Security Enhancement Act.[57] If the United States intervenes militarily, leaders in Beijing will want to have some means to cope with and deter coercion by Washington. They fear that if NMD is in place, leaders in Washington will be emboldened to interfere. Coupled with the development of theatre missile defence systems in East Asia and their possible introduction to Taiwan, this fuels concerns in Beijing about both US intentions and the prospects for eventual integration with Taiwan.

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55 For more on this, see the May 2000 special annual issue of *Comparative Connections*, an electronic journal on East Asian bilateral relations published by Pacific Forum CSIS and available at http://www.csis.org/pacfor/annual/foreword2000.html.

56 *Taiwan Relations Act* (TRA), Public Law 96-8, 96th Congress, 10 April 1979. The TRA stipulates through SEC.2(b)(5) 'to provide Taiwan with arms of a defensive characters,' and through SEC.3(c) that 'The President is directed to inform the Congress promptly of any threat to the security or the social or economic system of the people on Taiwan and any danger to the interests of the United States arising therefrom. The President and the Congress shall determine, in accordance with constitutional processes, appropriate action by the United States in response to any such danger.'

57 *Taiwan Security Enhancement Act (TSEA)*, H.R. 1838 EH, 106th Congress, 1 February 2000.

In both countries there are those who advocate an arms race. In the United States, some private experts wish to see rapid deployment of a national missile defence large enough to cap any possible build-up of PRC nuclear forces. In China, some experts wish to rapidly acquire a nuclear force that is on a par with that of Russia and perhaps even the United States. Such an offence/defence competition might be deemed stabilising by some, as each nation acquires specific new, more robust military capabilities. But an arms race would spill over to have a very damaging effect on the basic political relationship between the two countries. It would certainly have a chilling effect on the region.

The intense focus in the bilateral relationship on the sources of potential conflict, both real and imagined, has tended to obscure the interests that the two countries have in common. Only with a balanced view of these competing and complementary interests can we have a comprehensive view of the possible long-term impact of the bilateral relationship on the nuclear problem in Asia. In the security area alone, there are at least four important common interests.

First and foremost, both China and the United States have a mutual interest in international stability. This is most obviously true in East Asia, where neither country would like to see major new problems erupt. It is true in South Asia, where instability would threaten many in neighbouring regions. It is true in the Middle East, where the two countries share an interest in preventing WMD wars – and in enjoying reasonable access to energy resources there. For domestic economic development, China needs a stable and secure peripheral and regional environment. Washington also needs a secure and stable Asia, for its own trade and economic interests. The two countries have already collaborated in overt or tacit ways to manage challenges on the Korean peninsula, the Indian subcontinent and, more recently, in Indonesia.

Second, Beijing and Washington both have a keen interest in sustaining the process of nuclear threat- and risk-reduction at the global level. Further strategic weapons reductions, by both Washington and Moscow, would help alleviate Beijing's concern about being a victim of a first strike. The slowing and possible stalling of this reduction process has had a sobering effect in Beijing, as analysts there have come to talk in increasingly pessimistic tones about the future of arms control and disarmament. President

Bush has indicated that he expects to renew the US effort to reduce its strategic forces, and this has helped to moderate concerns in Beijing about America's capacity – and intention – to wage war.

Third, they have a common interest in the continued effectiveness of the nuclear non-proliferation regime, as of the global treaty regime more generally (nuclear, biological, chemical, missile, etc.). The two countries have strengthened their talks on missile non-proliferation and export control. On 21 November 2000, Beijing stated that 'China has no intention to assist, in any way, any country in the development of ballistic missiles that can be used to deliver nuclear weapons (i.e., missiles capable of delivering a payload of at least 500 kilograms to a distance of at least 300 kilometers).'[58] This statement has gained support from Delhi. Cooperation between Beijing and Washington is also helpful to the effort to reduce the risks in Asia as elsewhere posed by potential 'loose nukes'.

Fourth, Beijing and Washington have a common interest in reassuring those states with advanced latent capability that they do not need to turn to their own nuclear capabilities now or in the foreseeable future. This will be a major issue of the new century in Asia. Since China's test of its first atomic bomb, it has pledged its negative security assurances with a no-first-use (indeed, a no-use) policy towards all non-nuclear weapons states and regions. Beijing has given country-specific no-use commitments to some of those former Soviet member states that inherited nuclear weapons, to facilitate their denuclearisation process.

From a Chinese perspective, America's alliance relations in East Asia raise a difficult point. China notes the non-proliferation benefits afforded by American security guarantees to potential nuclear states in Asia. And it valued those alliance relations at a time of mutual concern about Soviet expansionism. But with the Cold War now more than a decade in the past, America retains a military presence in East Asia that is as strong as ever. In Beijing's view, this calls into question the true purpose of these relations. Such a dilemma – how to provide an ally with security and thereby assure that it will not go nuclear, while avoiding being perceived as hostile to others – remains a serious headache for Washington and Beijing. Asia can

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58 'People's Republic of China Foreign Ministry Spokesperson's Statement,' *People's Daily* (in Chinese), 22 November 2000, p. 4.

be greatly relieved of nuclear threat and risk if this problem can be resolved properly.

In sum, the nuclear future in Asia lies between potential nuclear antagonism between Beijing and Washington and the possibility of their constructive cooperation to curb WMD proliferation and promote regional peace. To secure a healthy and certain nuclear future in Asia, it is essential that the United States and China work cooperatively to confront the major challenges. They apparently have both the desire and ability to act cooperatively, so long as neither challenges the core and vital interests of the other. To achieve their common aims, they need to understand and respect sensitivities in each capital. If they are able to cooperate in this way, there is no reason why Asia's nuclear future must be dim and dark.

VI.6 Conclusions

The nuclear equation in Asia is strikingly complex. The nuclear future there is quite uncertain. But it is also highly important, given the potential impact of nuclear developments there on both global disarmament and bilateral US-Russian threat reduction.

This review has highlighted the important distinctions between the nuclear perspective common among members of the transatlantic community and the perspective of those in the Asia-Pacific. In the transatlantic community, nuclear weapons are generally seen as a vestige of the Cold War, and the political impetus is behind efforts to reduce nuclear threats and risks now that the spectre of Armageddon has been avoided with the end of superpower confrontation. In the Asia-Pacific community, the trajectory of events is far less clear. The pattern of nuclear restraint embraced by most of the region may prove long-lived, but there is a great deal of hedging by states that are concerned that it may not, along with rising concern about the resurgence of adversarial nuclear relations among the major powers. Historical memories are long, and with them run strong currents of nationalism and suspicion. The nuclear future will be written as much by the long-term playing out of the tension between a regional order based on balance of power and one based on cooperative approaches, as by short-term policy choices of specific governments.

Our overview of nuclear factors in the region illustrates the existence of many nuclear dominoes and wild cards. The situation is potentially quite volatile, with a very different nuclear order in the offing if the current one begins to unravel. The worst-case outcome, in which many states rush to acquire nuclear weapons as a response to an unravelling security order, seems unlikely. But so too does the best case, in which there is some orderly progression to mid-term nuclear abolition. Policy-makers should aim for the middle ground, and expect to lose a few proliferation battles while also winning a few non-proliferation victories.

To navigate towards this end, policy-makers require a better understanding of the nuclear dynamic in the region. That dynamic is driven by geopolitics and history as much as by the dictates of nuclear security. Towards this end, experts in Asian security must begin to come to terms with the language of nuclear stability and, conversely, experts on nuclear matters must learn the Asian strategic vocabulary. Better informed policies and a clearer view of long-term implications could help make possible choices by policy-makers in the region that contribute to common aims.

Conclusion

THE CASE FOR A GREAT EUROPEAN DEBATE

Burkard Schmitt and Camille Grand

A new nuclear landscape

The role, and even the *raison d'être* of nuclear weapons, which were symbolic of the East-West confrontation, have been seriously questioned following the end of the Cold War. However, the heralded disappearance of nuclear weapons has not happened, quite the contrary. The new nuclear landscape has features which clearly show that, while the end of the Cold War did indeed mark the end of *a* nuclear age, it did not signal the end of *the* nuclear age.

The first characteristic of the nuclear scene is that, although the decline in the importance of nuclear weapons as an instrument of security has been particularly evident in Europe, this has not been reflected everywhere. While new nuclear weapon-free zones have indeed appeared in Africa and South-East Asia, nuclear weapons have become more important in other regions of the world. That is of course the case in South Asia, following Indian and Pakistani nuclear tests, but also in East Asia and the Middle East. In these regions, the risk of use of nuclear weapons or other weapons of mass destruction in a regional conflict today seems greater than during the Cold War. Moreover, strategic rivalry between the major powers, including members of the P-5, is tending to become (re-)nuclearised, with all the nuclear powers, in various degrees, re-evaluating the role of nuclear weapons.

The second characteristic is that the crisis in arms control and non-proliferation is patent. Concerning disarmament, the series of treaties signed between 1987 and 1996 ended the excesses of the Cold War and finally made it possible to carry through an old agenda. Since 1997, negotiations in the various forums have been held up by the maximalist claims of the abolitionists, on the one hand, and the reluctance of the nuclear powers, who consider that an uncertain security environment justifies their arsenals, on the other. The non-proliferation treaty seems to be coming up against limits

vis-à-vis both non-signatory states (India, Pakistan and Israel) and signatory states that have violated their obligations (e.g. North Korea and Iraq). Although it is restricted to a small number of actors, this phenomenon of proliferation is all the more worrying since the states involved help each other to develop both weapons of mass destruction and ballistic missiles. Thus the optimistic result of the 2000 NPT renewal conference contrasts with much darker strategic realities. In the absence of a realistic agenda and political will on the part of the main actors, traditional arms control and non-proliferation no longer seem able to meet all today's challenges effectively.

Thirdly, deterrence, the key to security policy during the Cold War, is also being questioned. This takes the form of a latent anti-nuclear sentiment among public opinion that could easily develop into open protest. Consequently, the great majority of governments in the West do not openly declare the role played by deterrence in their security policies. That role is, moreover, increasingly questioned: between the great powers its stabilising role today seems rather remote, while certain analysts question its effectiveness in the face of the new risks associated with proliferation.

The last characteristic is, in a sense, the American response to the previous three. The United States views the world as one in which the proliferation of weapons of mass destruction and their means of delivery is an inescapable and threatening reality. It sees two types of consequence. Without formally renouncing deterrence or non-proliferation and disarmament treaties it wishes in the first instance to acquire complementary military means, in particular anti-missile defences, in order to deal with proliferation. Secondly, the United States does not intend to accept additional international restrictions on its ability to act; hence its refusal to subscribe to new arms control obligations and its determination to free itself from certain treaties it has already signed. Given the United States's pre-eminence, such developments cannot be without consequences for the rest of the world.

What about Europe?

For many Europeans, the reopening of nuclear questions has been an unpleasant surprise. After the end of the Cold War the 'ultimate weapon' disappeared, on the Old Continent, from the minds of not only the public but

also the political classes. From the point of view of Europe, which was accustomed to defining security above all in regional terms, and ill at ease with its responsibilities as a world actor, even proliferation problems seemed very remote. The awakening has been all the ruder since the characteristics of the new nuclear landscape (risks of proliferation, a crisis in arms control and US strategic developments) are likely to have a profound effect, before long, on the international system in a way that is almost the exact opposite of Europe's vision of the world.

It has in the first place been the shift in US policy, symbolised by NMD, that has obliged the Europeans to think again about nuclear weapons. As anti-missile defence is closely linked to non-proliferation, disarmament and deterrence, the complete range of nuclear questions have come back onto the agenda. Europe is of course no longer the nuclear centre of gravity but it can nevertheless not ignore the changes taking place in the strategic environment without ultimately taking serious risks with its own security. It remains to be seen whether addressing the new challenges will help the Europeans to overcome (or at least to cope with) their traditional differences, or whether their divisions will grow wider. In any case, Europe's capacity to influence the course of events will as always depend on its ability to unite and speak with one voice.

Non-proliferation is without doubt the least controversial nuclear issue among Europeans. Traditionally they have favoured a certain approach to the fight against proliferation based on diplomatic means and multilateral agreements. It is precisely that approach that is today being called into question by the refusal of a few proliferators to respect agreements, on the one hand, and the at least partial disengagement of the United States on the other. From a European point of view, it is essential to avoid the weakening, or even the collapse, of the present regime. The danger is that there could be a loss of legitimacy in the fight against proliferation and, through unilateralism, reversion to a situation in which might is right. Consequently, what is at stake for Europe is not just its immediate security but also its own perception of international relations based on multilateralism, the prevention and peaceful settlement of conflicts and the primacy of the rule of law. There is thus a double challenge: first, to ensure American support for the non-proliferation regime and, second, to make that regime more effective and credible.

Concerning disarmament in the strict sense, traditional divergences between nuclear and non-nuclear Europeans persist. These could become insurmountable when Russian and American arsenals have been reduced to the point where the question of opening nuclear disarmament negotiations to other parties arises. Yet such a distant prospect must not prevent the Europeans from acting together, in the immediate and near future, in this area. As negotiations in the Conference on Disarmament have been in stalemate for several years and progress on multilateral or negotiated US-Russian disarmament is unlikely, it is up to the Europeans to help draw up an agenda that offers a way out of the present impasse.

As far as deterrence is concerned, the situation in Europe contrasts with that in other regions of the world where major actors tend to put nuclear weapons at the heart of their security policies. Most European governments still formally adhere to a strategy of deterrence in which those weapons play the role of last resort. They have, however, tended to play down the nuclear dimension in their defence postures in favour of crisis management. Without making a judgement today on the question of the ultimate destiny of nuclear weapons, the European concept of deterrence (as it appears in NATO, British and French doctrines), which involves limited nuclear arsenals that would in any case only be used if vital interests were at stake, offers an alternative to the trend towards a potentially increased role for nuclear weapons in regional crises. In these circumstances it is up to the Europeans to become proactive in international discussions on this subject in order to convince the other nuclear actors of the virtues of their restrictive approach to the role of nuclear weapons.

That leaves the question of anti-missile defence. The Europeans must react to America's ambitions, as these may have important consequences for international security. The challenge here is how to influence Washington in such a way that the project remains compatible with the arms control regime and does not permanently destabilise relations with Russia or the strategic balance in Asia. However, the situation is even more complex since the question of anti-missile defence arises also in the European context. It is quite possible, indeed probable, that certain countries on the periphery of Europe will in the foreseeable future possess missiles capable of reaching European cities. Of course, the threat is not simply a matter of technological capability but also of political intent. The question is therefore whether this is a risk that, taking all factors into consideration, justifies the development

of an anti-missile defence system for Europe, and if so what system. The answer to that question will not come just from an analysis of the threat but also from the political implications for both the European Union itself and its relations with the rest of the world.

What policy for the European Union?

Firstly, Europe has to acknowledge an unpleasant fact: the traditional combination of nuclear deterrence and arms control that guaranteed stability during the Cold War no longer seems adequate, given the complexity of the current nuclear scene. As the appearance of anti-missile defences further complicates the issue, the Europeans are faced with a difficult choice. Should they concentrate on arms control and non-proliferation alone? Is it possible to return to a greater role for deterrence as the main response to certain strategic threats that are possibly less pressing but nevertheless vital? Or should Europe turn resolutely to anti-missile defence in order to protect its territory and citizens? None of these three options seems realistic, for the following reasons.

- Putting the emphasis on non-proliferation and disarmament conforms to the traditional diplomatic approach in many European countries. However, by itself it could prove unrealistic in view of the change in US policy and the ambitions of proliferators. If the Europeans were practically alone in resolutely pursuing a path of non-proliferation and disarmament, this would have virtually no effect on the overall nuclear equation and an unfavourable one on European security.
- Concentrating on deterrence alone is scarcely more realistic for Europe. The political conditions for the creation of a European deterrent (whatever form that might take) are lacking, if only because of obviously adverse public opinion in most European countries. Moreover, this would be a maximalist strategic posture that could turn out to be ineffectual in many scenarios where threats to use nuclear weapons would be hard to imagine.
- Lastly, the choice of anti-missile defence could on the face of it meet the new challenges without offending many Europeans' anti-nuclear sentiments. Yet as will be seen later, this is an option that would be politically, technologically and financially difficult if not impossible to put into practice.

The Europeans therefore have to choose the best policy mix for their security. While this situation is similar to that facing the United States or Russia, there are considerable dissimilarities that are to do with different strategic cultures and perceptions. For reasons of history, there is a difference in threat perception – not so much the analysis of the risks themselves as their perceived gravity. One fundamental difference is that Europe, unlike the United States, is not a dominant superpower that is inclined to project its power beyond its immediate vicinity, and does not provide security guarantees to a string of countries in Asia and the Middle East. Moreover, it is facing a variety of nearer and more immediate risks than the acquisition of long-range missiles by hostile regional powers, and consequently has other security priorities. Lastly, Europe does not have the same budgetary resources as the United States.

A European model?

In these circumstances, what might be the essential elements of a European model that takes into account both the new strategic challenges and the strategic cultures of the various countries in the Union? The word 'demanding' seems an appropriate one to describe such a model: it would involve a demanding, ambitious approach to non-proliferation, a demanding concept of deterrence and a prudent but rigorous debate on anti-missile defence.

(1) All EU members intend to defend and promote the norms of non-proliferation and arms control as the basis of legitimacy in the fight against proliferation. Today, however, one cannot be content with an approach that has in certain respects become ineffective. It is, for instance, not sufficient to be satisfied with obtaining the signature of treaties. In order to make the non-proliferation regime credible and effective, treaties that have been signed must be ratified and implemented by the most difficult states. It is also essential that intrusive, and therefore deterrent, verification procedures are set up (which is not the case for the Biological Weapons Convention), ratified (which is not the case with the additional IAEA protocols for the NPT) and applied (which has not happened in the case of the Chemical Weapons Convention). The Europeans' demands must in this regard be threefold, and take advantage of the EU's economic and political weight. The Europeans must:

- insist upon a modern, strict conception of treaties, developing inspection and sanctions regimes and applying the principle of irreversibility;
- put respect for non-proliferation norms at the heart of policies vis-à-vis third countries so as to obtain the signature, ratification and respect of the undertakings made;
- engage more actively at the diplomatic level in the fight against proliferation by putting pressure on states outside the regime, taking maximal advantage of the possibilities offered by the treaties (challenge inspections), investing financially in disarmament (particularly in Russia) and being prepared to apply policies of exports control and trade sanctions against offending states.

(2) Rigour is also necessary in the field of deterrence. While many Europeans of course wish to see more rapid progress towards disarmament, it is nevertheless true to say that the approach to deterrence taken by the two European nuclear powers is in many respects exemplary. It contrasts with US-Russian excesses, the growing nuclearisation of Asia and the total lack of transparency shown by China. Even if the European nuclear powers' approach may be an interim, imperfect solution, we none the less believe that it could form the basis for a core consensus in the EU, and that it is an example for the other nuclear actors. In this context, surely the Europeans should stop attacking each other over the nuclear choice made by the different European countries, given that even proponents of nuclear disarmament in Europe recognise that the real problems lie elsewhere? As long as nuclear weapons exist, all EU members should agree to promote a demanding European approach to deterrence, based on a few simple principles:

- keeping arsenals at modest levels and making reductions as large as possible;
- acceptance of restrictive treaties and international norms (an end to nuclear tests and the production of fissile material) and greater transparency;
- a strict concept of deterrence as the guarantee of vital interests only, and the nature of nuclear weapons as a last resort, rejecting any drift towards doctrines of use or the logic of an arms race.

(3) Finally, Europe has to be demanding on the question of anti-missile defences, both vis-à-vis the United States and its apparently unshakeable

determination to take forward its project, and also in analysing its own needs.

As far as US ambitions are concerned, the European position cannot be simply either a blunt refusal or unconditional acceptance of any American proposal. The former would create transatlantic tensions without changing anything, while the latter would amount to an admission that Europeans do not even intend to develop a policy of their own in this field. Ideally, they should jointly prepare a differentiated position, shared by all EU members, and defend that position in constructive dialogue with the Americans. Even if the decision in principle to develop and deploy a BMD remains in the first place an American one, the Europeans should not underestimate the influence they could have on the shape of the project in practice. Imposing a solution in the face of its allies' opposition would be politically expensive for the United States. If the Americans want Europe to accept the project, they should for their part accept certain conditions in keeping with the European approach. Those conditions might include the following.

- The development of anti-missile systems must be accompanied by unequivocal renewal of commitments to non-proliferation and disarmament. That implies, *inter alia*, ratification of the CTBT and continuation of the START process with Russia (rather than making unilateral, non-negotiated reductions).
- Military means, even defensive ones, cannot be seen as a substitute for diplomacy. The fight against proliferation is still above all a political one, and military means can only be a last resort in the resolution of regional crises. Otherwise, unilateralism risks having more destabilising effects than proliferation itself.
- Anti-missile defence must not call into question either deterrence in general or extended deterrence in particular.
- What is technically and financially feasible is not necessarily politically or strategically desirable. The chosen configuration must ultimately be acceptable to Russia and bearable for China; if not, the result would probably be more proliferation and less disarmament. Consequently, the United States should accept certain limits to any BMD (in particular regarding the number of interceptors deployed) and omit destabilising elements such as space-based interceptors. If the system is really designed to defend against 'rogue states', it should by definition also be limited in scope.

- Anti-missile defence is not and will not become a strategic priority for the Europeans. Consequently, any transatlantic cooperation in this field must not be detrimental to other, more urgent Headline Goal projects.
- If, from an American point of view, the ballistic missile threat justifies the deployment of an anti-missile system, it should also justify a more intensified exchange of intelligence data with the Europeans and greater technology transfer in order to improve European 'lower-tier' systems. The latter must nevertheless be capable of operating autonomously.

The last point brings us back to the question of an anti-missile system for Europe. In our view, a 'true' BMD for the European Union, covering the territory of all member countries, is in the foreseeable future neither necessary nor feasible. From a technological point of view a ballistic missile threat to European territory from a proliferator cannot in future be ruled out, but the risk does not at the moment justify major investment. Financially, a project of this size seems completely unrealistic. Indeed, with defence budgets that are restricted, fragmented and at best stagnating, it lies far beyond the reach of European countries, who are already having difficulty in financing their Headline Goals. Politically, a BMD for the Union would, for geographical and strategic reasons, presuppose a degree of politico-military integration that has until now been unthinkable. As for the transformation of the NATO Extended Air Defence System into an anti-missile defence, this would not be cheaper and would exclude non-NATO members of the European Union. In brief, the more ambitious an anti-missile defence for Europe is, the more the political and financial costs are out of proportion to the actual threats.

On the other hand, several European countries already have limited anti-missile defence programmes, such as MEADS or *Aster*. These are tactical systems for the protection of ground troops facing an adversary equipped with missiles. They thus form part of a 'robust' CESDP that does not exclude the projection of European forces into crisis regions on the periphery of Europe. The question is whether an autonomous crisis-management capability requires additional elements such as early warning (to give longer warning times) and autonomous intelligence systems (to evaluate better the threat in peacetime and deal with it better during crises). Such capabilities can be linked to the type of very complex architectures of which certain American leaders dream, but they could also form part of a more modest and politically less sensitive framework. Their development for Europe

seems feasible (from the point of view of technology and funding) and justifiable (from an operational and strategic perspective). They could be combined with American assets and – if ever the threat to Europe were to materialise – even act as a basis for more complex systems. Even if these limited capabilities seem less urgent than other military requirements (such as strategic transport or C3), they are at least worth considering.

All of this leads to the conclusion that a European debate on these new nuclear and strategic questions is necessary, indeed inevitable. Certainly, few subjects are likely to divide the Europeans more than nuclear weapons. Nevertheless, the possible consequences for international security are too important for the Europeans simply to ignore the new strategic developments. At the same time, we are convinced that consensus among Europeans is greater than one might imagine and certainly sufficiently adequate for joint action, which is the only way they can play a role in this great debate.

It is not a matter of revisiting the idea of concerted deterrence that was put forward by the French in the mid-1990s. The very notion leads to misunderstandings and phobic reactions. Deterrence as such is only one subject to be addressed among others, and doubtless not the most urgent at the moment. Rather, it is a matter of taking genuine concerted action on a wide range of nuclear-related topics, including:

- evaluation of the threat from weapons of mass destruction (including their means of delivery);
- examination of ways of strengthening non-proliferation regimes and giving fresh impetus to disarmament negotiations;
- the development of a specific concept for Russia (aid in the dismantling of weapons, negotiations on tactical weapons);
- joint analysis of the various US BMD configurations and their possible consequences;
- evaluation of the requirement for a limited anti-missile defence for Europe and its political and institutional consequences;
- evaluation of the role of nuclear weapons in European security, but without embarking on a broad, counter-productive debate on European deterrence.

If the members of the European Union are incapable of carrying through such concerted action and arriving at a common position on these issues,

they run the risk that the United States will simply ignore their concerns even though they are widely shared in Europe and elsewhere. They will then have no other choice but to accept the new strategic framework as defined by President Bush, whereas there is today a real opportunity to influence decisions taken in Washington. That opportunity can only be seized if the members of the Union act in concert.

More generally, it is hard to see how the Union could develop its CFSP and CESDP without joint consideration of these issues. The topics suggested above offer the possibility to put forward a true European agenda in the great debate that is now beginning. Whether one likes it or not, Europe's responsibilities in international security matters are too important for it to remain silent in these debates. European reflection and action are essential and, given the new political and strategic realities, there is only one appropriate setting for them: the European Union.

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Abbreviations

ABM	Anti-Ballistic Missile (Treaty)
BMD	Ballistic Missile Defence
CBW	Chemical and Biological Warfare
CD	Geneva Conference on Disarmament
CESDP	Common European Security and Defence Policy
CFE	Conventional Armed Forces in Europe (Treaty)
CFSP	Common Foreign and Security Policy
CIA	Central Intelligence Agency
CIS	Commonwealth of Independent States
CTBT	Comprehensive Test Ban Treaty
DIA	Defense Intelligence Agency
DPRK	Democratic People's Republic of Korea (North Korea)
ESDP	European Security and Defence Policy
EU	European Union
EURATOM	European Atomic Energy Community
IAEA	International Atomic Energy Agency
ICBM	Intercontinental Ballistic Missile
INF	Intermediate-range Nuclear Forces
KLA	Kosovo Liberation Army
MAD	Mutual Assured Destruction
MEADS	Medium Extended Air Defence System
MIRV	Multiple Independently Targetable Re-entry Vehicle
MIT	Massachusetts Institute of Technology
MTCR	Missile Technology Control Regime
MUF	Material Unaccounted For
NAC	North Atlantic Council
NATO	North Atlantic Treaty Organisation
NBC	Nuclear, Biological and Chemical
NDU	National Defense University
NIE	National Intelligence Estimate
NIPP	National Institute for Public Policy
NMD	National Missile Defence
NPR	Nuclear Posture Review
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NWFZ	Nuclear Weapon-Free Zone
NNWS	Non-Nuclear Weapons State
NWS	Nuclear Weapons State
P-5	The five permanent members of the UN Security Council
PDD	Presidential Decision Directive
PGM	Precision-Guided Munition
PLA	People's Liberation Army
PRC	People's Republic of China
RMA	Revolution in Military Affairs
SDI	Strategic Defence Initiative
SIOP	Single Integrated Operational Plan

SLBM	Submarine-Launched Ballistic Missile
SRF	Strategic Rocket Force(s)
SSBN	Subsurface, Ballistic, Nuclear (Nuclear-Powered Ballistic Missile Submarine)
START	Strategic Arms Reduction Talks/Treaty
TMD	Theatre Missile Defence
TNW	Tactical Nuclear Weapons
UK	United Kingdom
UN	United Nations
UNPROFOR	UN Protection Force (in former Yugoslavia)
UNSCOM	UN Special Commission on elimination of Iraqi WMD
US	United States
USSR	Union of Soviet Socialist Republics
WEU	Western European Union
WMD	Weapons of Mass Destruction