
New Wine in Old Bottles? The New Salience of Nuclear Weapons

In collaboration with the Atomic Energy Commission (CEA)

Yury E. Fedorov

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Proliferation Papers

Though it has long been a concern for security experts, proliferation has truly become an important political issue over the last decade, marked simultaneously by the nuclearization of South Asia, the weakening of international regimes, and the discovery of fraud and trafficking, the number and gravity of which have surprised observers and analysts alike (Iraq in 1991, North Korea, Libyan and Iranian programs or the A. Q. Khan networks today).

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Introduction

"... On peut bien parler d'une guerre mondiale, non pas la troisième, mais la quatrième et la seule véritablement mondiale, puisqu'elle a pour enjeu la mondialisation elle-même. Les deux premières guerres mondiales répondaient à l'image classique de la guerre. La première a mis fin à la suprématie de l'Europe et de l'ère coloniale. La deuxième a mis fin au nazisme. La troisième, qui a bien eu lieu, sous forme de guerre froide et de dissuasion, a mis fin au communisme. De l'une à l'autre, on est allé chaque fois plus loin vers un ordre mondial unique. Aujourd'hui celui-ci, virtuellement parvenu à son terme, se trouve aux prises avec les forces antagonistes partout diffuses au cœur même du mondial, dans toutes les convulsions actuelles.... Mais la quatrième guerre mondiale est ailleurs."

Jean Baudrillard, "L'esprit du terrorisme", *Le Monde*, November 3, 2001

Assessing continuity and change in the world's nuclear landscape is no small task. Since the end of the fierce East-West ideological and political conflict, escalating arms race, and brinkmanship, known as the Cold War, and mainly as a result of its end, the global strategic environment has fundamentally changed, and continues to change. Yet as one French scholar has written, "We may know that the world is being transformed, but we do not know what the world is being transformed *into*. ... What this will look like is as imaginable to us now as the Treaties of Westphalia, which closed the Thirty Years War in 1648-49 would have been to a European of 1618."¹ There are various, often contradictory interpretations of basic trends and alternative hypothesis about their driving forces. In particular, some analysts still believe that after the Cold War the world is moving toward a democratic reconciliation and hence the "end of history". If that is the case then nuclear weapons are becoming less important. However, there is an increasing body of evidence to support Jean Baudrillard's theory that current geopolitical convulsions are the initial manifestations of a fourth world war. If so, the questions, as yet unanswered, are what the fundamental nature of this war is; what political and social actors are colliding with each other; and what the role of nuclear weapons will be in the conflicts and confrontations that may be pushing us toward another global conflagration.

¹ François Heisbourg, "Europe and the Transformation of the World Order", *Survival*, Vol. 43, n° 4, Winter 2001-2002, p. 143.

The Old Nuclear Order

To assess changes in the global nuclear landscape one needs to outline its basic characteristics during the Cold War. Its central element was East-West nuclear deterrence. As many believe, deterrence was based on mutual assured destruction resulting from a second strike capability possessed by each of the two superpowers. Strategic theory suggests that mutual assured destruction prevented total nuclear exchange between the Soviet Union and the United States. However, how nuclear deterrence functioned at regional levels remains an open question.

NATO's policy presumed that nuclear weapons of member-states, the US above all, nullified Soviet conventional superiority in Europe and thus assured an overall military parity that prevented Soviet aggression. In the extreme case, if NATO's non-nuclear forces were not able to stop Soviet conventional offensive, sub-strategic nuclear weapons would be used after combat operations escalated beyond a "nuclear threshold", the exact criteria of which are still unknown. Yet it is not a secret today that Soviet military command planned to use a few hundred nuclear weapons at the very beginning of a war in Europe to destroy NATO's defenses.² Such a strategy made sense if the Soviet General Staff had reason, real or imagined, to believe that regional nuclear war in Europe would not escalate into a full-scale strategic nuclear exchange between the United States and the Soviet Union, and that NATO would not retaliate in such a way as to prevent Soviet victory in Europe or make the costs of a Soviet victory unbearably high.

² For instance, high-ranking Soviet and later Russian diplomat Oleg Grinevsky quoted the former head of the Soviet General Staff Marshal Nikolay Ogarkov, "We are not about to wait when we are attacked. ... We ourselves will attack if we are forced to and when we find initial indications of a NATO nuclear assault. ... We have the right to consider it as a response even without being under actual missile attack". Grinevsky also confirmed "During the military exercises "Comrades in arms-80", "The Union-83", "The Shield-83" the armed forces of the Warsaw Pact countries were perfecting offensive operations from the very beginning of the conflict. ... All the scenarios from these exercises presumed that it was NATO that would make the first attack. However the particular kind of NATO actions [that might fall into this category and trigger Soviet nuclear use and offensive military operations] was unclear. It was presumed that nuclear weapons would be used just after the very beginning of the conflict for massive destruction of the enemy's defense system. A few hundred tactical nuclear weapons would be used". Oleg Grinevsky, *The Turning point. From Brezhnev to Gorbachev*, Moscow, OLMA-PRESS, 2004. p. 71, 309.

Thus, the effectiveness of regional nuclear deterrence in Europe depended on 1) the survivability of American tactical weapons in Europe, 2) French and British nuclear deterrents, and 3) the credibility of American nuclear guarantees. To be credible, however, American guarantees had to imply U.S. readiness to use not only tactical weapons stationed in Europe but strategic weapons as well. The latter meant escalation of regional nuclear war into a global one that would devastate both the Soviet Union and the United States. As a result, there was never one hundred percent confidence in American willingness to risk its own existence on behalf of its allies in Europe (or in the Far East) from Soviet attack.

But rational calculations of risks, losses and gains may in the event have been less important than a psychological barrier, a kind of a taboo about the use of nuclear weapons that sprang from an intuitive understanding that military clashes between the Soviet Union and the United States, and between NATO and the Warsaw Pact, would automatically escalate into an all out nuclear war. This would have annihilated both the Western and Eastern blocks. At the very least, the probability of uncontrollable and chaotic escalation was deemed too high a risk.

Although the East-West nuclear relationship was the core element of the Cold War nuclear order, other "nuclear axes" existed too, for example, between the Soviets and the Chinese. For the former Soviet Union, the main threat came from a hypothetical massive Chinese conventional invasion that could be deterred or defeated only by a threat or actual use of tactical weapons against invading Chinese troops and, probably, strategic nuclear weapons against Chinese nuclear forces to prevent nuclear attack on Soviet cities. China meanwhile faced the dilemma of either having to use its nuclear weapons first at the very beginning of the war, or losing them. Thus, despite official no-first-use policies on both sides, Soviet and Chinese practical strategic planning might have in reality called for first use of nuclear weapons. As a result, strategic stability in the Far East was fragile. In the event of Chinese-American military conflict, for example resulting from a confrontation in the Taiwan Straits, Beijing needed to neutralize American conventional superiority - especially in naval and air forces. It thus sought to deter a large-scale U.S. intervention by a threat of first use of nuclear weapons against American troops in the Pacific, or even against American territory itself. Similarly, in the Middle East, the Israeli deterrence strategy was based on using nuclear weapons first in the event that the Israeli conventional armed forces were defeated by numerically overwhelming Arab troops.

Thus, during the Cold War the main axes of the global nuclear order have been formed along the lines of political and ideological confrontations. In this light the central post-Cold War issue is how fundamental changes in the international environment have affected these nuclear dynamics.

Toward the Marginalization of Nuclear Weapons?

The end of the Cold War initiated a search for theories about the role and missions of nuclear weapons in the rapidly changing international environment. Among them, the "nuclear weapons marginalization theory" has spread widely. This theory argues that nuclear weapons are losing their relevance.³

This theory is based on a general supposition that the end of the East-West political and ideological confrontation eliminated the very *raison d'être* of nuclear deterrence, hence of nuclear weapons. In addition, the growing forces of globalization are seen often as preconditions of an infant yet developing global harmony. A prospect of a more peaceful world gives reasons to believe that the role of nuclear weapons would decrease proportionally to the progressive relaxation of tensions and the end to regional and local instabilities and conflicts. This vision was typical of the 1990s, the period when the collapse of communism in Central and Eastern Europe and in the former Soviet Union produced much optimism and hope, especially because the risk of a "large war" in Europe and of a nuclear war between Russia and the United States was almost nil.

Yet as the world entered the XXIst century it was clear that the hope that "History had ended" was misguided. Predictions of coming wars between "the haves and the have-nots" of the world have become a banality since September 11, 2001. Looking at these wars through the lens of contemporary political theory, one might conclude that they result mainly from collisions between post-modern and traditional societies, between forces of modernization and those groups, forces and regimes whose social status, well-being and in some cases very existence are threatened by modernization.⁴

³ Thérèse Delpech has outlined two basic trends in the evolution of the global nuclear order after the end of the Cold War: "What we are witnessing ... are contradictory developments. Some of them illustrate the continued marginalization 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". In: Burkard Schmitt (Ed.), *Nuclear weapons: a new Great Debate*, Chaillot Paper 48, Institute for Security Studies of the EU, July 2001, <http://www.iss.europe.eu/chailot/chai48.html>.

⁴ Commenting on events after September 11, 2001 Sir Michael Alexander, the Chairman of British Royal United Services Institute, wrote "It is the first war whose

This global opposition may result in wars between regular armed forces of advanced countries and "rogue states", yet mainly in "major irregular wars" like those playing out in Iraq, Afghanistan, Chechnya, and Southern Lebanon. These wars have also been dubbed "a fourth-generation warfare", "a modern type of insurgency", "unconventional wars".⁵ These are combinations of civil wars, massive unrest, terrorism, ethnic clashes and ethnic cleansing, large scale counter guerrilla, security and police operations aimed at establishing control over territory, peace enforcement and institution-building missions. At the same time, the "nuclear weapons marginalization theory" argues, threats typical of the post-Cold War world, from terrorists, drug-trafficking, organized crime, local and regional disturbances, conflicts and instabilities, obstructions of oil and gas supplies, cannot be met by nuclear force.⁶

The massive introduction of the most advanced technologies in conventional armed forces, often referred to as the "revolution in military affairs", has made modern hi-tech non-nuclear forces very effective in crushing regular, "traditional type" armed forces.⁷ Moreover, numerous

setting is the global village. It is war about how the global village is to be administrated and on whose behalf. It is therefore about the rule of law, human rights, political and cultural structures and about justice – as well, inevitably, as about power and wealth. Like all civil wars, we can expect it to be savage and continuous. In contrast with many civil wars in the past, this time there will be no *deus ex machina*, no external intervention, and no outside pressure for moderation and containment – at least not from this planet". - Sir Michael Alexander, "The War We Now Face", *RUSI News-brief*, October 2001, Vol. 21, N° 10, p. 109.

⁵ There are a number of definitions of this type of warfare. The American analyst Thomas X. Hammes defines fourth-generation warfare as "a modern type of insurgency. Its practitioners seek to convince enemy political leaders that their strategic goals are either unachievable or too costly for the perceived benefit. ... The United States cannot force its opponents to fight the short, high-technology wars it easily dominates". Thomas X. Hammes, "Insurgency: Modern Warfare Evolves into a Fourth Generation", *Strategic Forum*, N° 214, January 2005, Institute for National Security Studies, National Defense University, p. 1.

⁶ U.S. President George W. Bush voiced this view during the 2000 presidential campaign. "When it comes to nuclear weapons, the world has changed faster than U.S. policy. The emerging security threats to the United States, its friends and allies, and even to Russia, now come from rogue states, terrorist groups and other adversaries seeking weapons of mass destruction, and the means to deliver them. Threats also come from insecure nuclear stockpiles and the proliferation of dangerous technologies. Russia itself is no longer our enemy. The Cold War logic that led to the creation of massive stockpiles on both sides is now outdated. Our mutual security need no longer depend on a nuclear balance of terror". Governor George W. Bush, *New Leadership on National Security*, Washington D.C., May 23, 2000, <http://www.fas.org/spp/starwars/program/news00/000523-natlsec.htm>.

⁷ Lawrence Freedman has written "The RMA promises the elegant delivery of weapons with just the right amount of lethality against precisely chosen targets, unconstrained by distance, climate, or terrain. In addition, there is talk of quite new forms of warfare based on disrupting vital economic and social as well as military functions by attacking information flows. Behind the RMA is a clear concept of how the United States would prefer to fight: in decisive battles marked by low casualties and low collateral damage". Lawrence Freedman, "The New Great Power Politics", In: Alexei G. Arbatov, Karl Kaiser, and Robert Legvold (Eds.), *Russia and the West*, East-West Institute, M.E. Sharpe, 1999, p. 31.

missions previously assigned to nuclear weapons can often be fulfilled by high tech, highly precise conventional weapon systems. But events in Iraq, Afghanistan, Southern Lebanon, and Chechnya confirm that hi-tech forces, let alone nuclear weapons, are futile in "major irregular wars". In addition, the revolution in military affairs suggests that conventional weapons may be increasingly capable of performing some of the missions allocated to nuclear weapons today, including the destruction of mobile ICBMs⁸. In view of this, the "nuclear weapons marginalization theory" insists, nuclear weapons have become less and less relevant and more and more extraneous to the national security of developed nations while development of effective strategies, tactics and weapons for "major irregular wars" is the most essential task of today.

This does not mean, of course, that mankind is moving towards a non-nuclear world, the cherished dream of pacifists since the middle of the last century. None of the major nuclear powers, in fact, is prepared to give up its nuclear arsenal. Some nations are even attempting to get hold of nuclear weapons. The "nuclear weapons marginalization theory" explains this not by the essential strategic value of nuclear weapons but by political – and in a way transient - rather than strategic circumstances: nuclear weapons still convey a prominent international status to the country possessing them. Nuclear deterrence strategy results from a mentality inherited from the past; there are potent economic, bureaucratic, military, and academic lobbies that are vitally interested in the development, production, deployment of nuclear weapons. Some believe that, despite the end of the Cold War, nuclear deterrence perpetuates itself on account of the powerful inertia within military structures responsible for nuclear forces and the very fact that nuclear weapons exist⁹.

This theory has crucial practical importance. If true, major resources should be focused on development and deployment of hi-tech conventional

⁸ In particular Stephen M. Younger, Associate Laboratory Director for Nuclear Weapons, Los Alamos National Laboratory, has written that "it is already possible for cruise missiles to deliver payloads to targets hundreds of miles from their launch point within a few meters of accuracy. High precision for intercontinental missiles, either land- or sea-launched, is also possible. Data collection from satellites and from unmanned forward platforms will enable real-time remote battle management, including the direction of precision munitions to distant, even mobile, targets. ...Information warfare may develop in such a fashion to enable the United States to interdict enemy command, control, and communications". Stephen M. Younger, *Nuclear Weapons in the Twenty-First Century*, LAUR-00-2850, June 27, 2000, <http://www.fas.org/nuke/guide/usa/doctrine/doe/younger.htm>.

⁹ A typical example of this philosophy can be found in a recent book written and edited by the two leading Russian analysts, Alexey Arbatov and Vladimir Dvorkin. "Even if relationships between nuclear weapons states are changing dramatically and those states stop regarding each other as enemies, as it has happened between Russia and the United States after the end of the Cold War, their armed forces, nuclear forces above all, retain a powerful momentum of opposition and rivalry. The Soviet Union-United States mutual nuclear deterrence has easily outlasted their global rivalry and confrontation ... Nuclear deterrence exists and reproduces itself even after one of its two main actors, the Soviet superpower, has disappeared". A. Arbatov and V. Dvorkin (Eds.), *Nuclear Weapons after the Cold War*, Moscow Carnegie Center, 2006, pp. 102, 103 (in Russian).

weapons, improvement of counter-insurgent capabilities and methods, rather than the modernization of nuclear weapons. Yet if wrong, such a policy will lead to dangerous consequences for advanced countries. The practicality of these issues is confirmed by recent debates in the UK about the replacement of the Trident system. Critics have said the resources needed to replace Trident would be better spent for other security programs, particularly because nuclear weapons are useless against "global terrorism" which is taken to represent the threat of the future. Supporters of replacement argue that Trident is needed to deter any threat, particularly at a time when countries like North Korea and Iran harbor their own nuclear ambitions.

The United States, France and Great Britain are keeping their nuclear arsenal, although reducing it. This is seen sometimes as empirical evidence of the theory of nuclear marginalization. Yet this theory does not take into account Chinese and Russian nuclear strategies which may lead to the formation of new axes of nuclear competition. Nor does it consider the possibility of uncontrolled nuclear proliferation. Even though proliferation is already one of the main reasons why established nuclear powers want to retain their arsenals not only as a deterrent, but also as a tool for counter-proliferation – as evident in recent Bush Administration attempts to develop precise, deep earth-penetrating nuclear warheads.

The arguments developed by "nuclear weapons marginalization theory" are correct in themselves. Many believe that the "denuclearization" of security is among the most important characteristics of the emerging international system at the beginning of the 21st century. Yet this theory ignores a few fundamental aspects of the emerging strategic reality. The first of these is strategic unpredictability.

Strategic Unpredictability

The principal characteristic of the emerging global strategic environment is its unpredictability. This is a key reason states may chose to maintain nuclear forces as an ultimate security guarantee. Man's ability to foresee the future is limited. Few, if any, of turning points of history, including radical changes of the international system, had been predicted in advance. For example, at the early days of the French Revolution few expected the Napoleonic Empire. In August 1914, nobody believed the First World War would be as long and bloody as it became. Similarly, no one could have predicted the subsequent emergence of German Nazism and Soviet Bolshevism and their effects upon mankind's history. The same is true with regard to the collapse of the Soviet Union and Communism in Central and Eastern Europe. The list of such unexpected developments is very long. Most probably, it is a result of linear nature of human thinking; the future is seen as something that differs from the present by quantitative parameters only.

The other important characteristic of human thinking is that neither the general public, nor ruling elites tend to accept analytical conclusions that differ from their habitual views. The terrorist attacks of September 11, 2001, were, to a certain extent, predicted. Experts in academia as well as of governmental agencies had foreseen the growing threat of "megaterrorism", bioterrorism, the rise of extremist movements and groups in the Islamic world... Yet the terrorist assault on the United States turned out to be a complete surprise.

Among other factors of uncertainty in the emerging world system, the U.S. failure in Iraq may give rise to a "post-Iraq syndrome". If this syndrome becomes strong enough, the United States may move toward isolationism, thereby encouraging Europe to strengthen substantially its military, including its nuclear, capabilities. Another possible development is a "nuclear domino" effect in the Pacific and the Middle East, two regions pivotal for the global economy, if the North Korean and Iranian nuclear programs are not halted and reversed. Finally, there is a possibility of nuclear terrorist act in Europe, the United States or Russia, or of a limited nuclear war in the Middle East, South Asia, or the Korean peninsula.

In short, one cannot ignore the possibility of an event that radically changes the current world order in such a way that nuclear weapons regain their old relevance. In such circumstances, an axis of severe confrontation between Russia and the West could re-emerge. It is not yet clear how China will develop after completing its current programs of economic and

military modernization, or after the Taiwan issue is settled. It is thinkable that Beijing will pursue an expansionist policy in the Pacific and/or Siberia and the Russian Far East. This would most likely result in the formation of China-U.S. and/or China-Russia confrontations with a nuclear element.

Nuclear Tripolarity?

These considerations raise the possibility of a major alternative to the progressive marginalization of nuclear weapons: the emergence of a tripolar system structured around the bilateral relationships of China, Russia, and the United States. There are several reasons to think that such an order might be inherently unstable. Let us examine each of these axes of deterrence in turn.

The Contradictions of Contemporary Russian Strategy

Another important source of continuing nuclearization of the global strategic environment is Russian policy. As the second largest nuclear power in the world, Russia hopes to strengthen its international influence by relying on its nuclear assets. At the end of 2007 President Putin said that "increasing combat readiness of our strategic nuclear forces is one of our biggest tasks".¹⁰ With this in view, Moscow has invested substantial resources in maintaining its nuclear arsenal - which many believe is nonetheless deteriorating – while developing new strategic nuclear armaments both of land- and sea-based types¹¹.

While the role of nuclear weapons in Western security thinking is more modest than it was during the Cold War, Russian strategic thinking is evolving in a different direction. Russian military, political, and bureaucratic elites consider nuclear weapons to be the main foundation of Russian security and see them as an instrument that ensures Russia's national interests.

Yet in a new strategic environment, instead of massive use of nuclear weapons planned by the Soviets during the Cold War, Russian military command seeks to develop a method of limited use of nuclear weapons that will enable them to deter or stop attack of superior conventional forces without escalation into total nuclear exchange or into a large-scale regional war. At the heart of Russian nuclear strategy today is a theory of "de-escalation of armed conflict" by a limited first use of nuclear weapons. This is the principal innovation of Russia's official strategic

¹⁰ President Vladimir Putin, Opening remarks at the meeting with the Armed Forces senior command, November 20, 2007, Defense Ministry, Moscow, http://www.president.kremlin.ru/eng/text/speeches/2007/11/20/1356_type82912type82913_151712.shtml (in English, official translation).

¹¹ Russian new strategic nuclear weapons are: mobile "Topol-M" ICBM; "Bulava-30" ballistic missile of dual, land and sea, basing type; fourth-generation SSBN of "Yury Dolgoruky" type.

thinking since the Soviet period. Russian nuclear doctrine presumes that Russia will use nuclear weapons first in the form of "demonstrative strikes" made by a few strategic weapons against targets located in unpopulated areas in the deep rear of the enemy, or by a few tactical armaments on the battlefield.¹² This should force an enemy to confront a dilemma of having either to stop armed hostilities or risk nuclear escalation.

In part, the paramount role of nuclear weapons in Russia's strategy after the Cold War is rooted in the mentality of its elites. Until recently Russian elites perceived Russia as a country in decay affected by a severe systemic crisis that extended to the armed forces. Nuclear weapons were seen as the only compensation for deteriorating conventional forces. In this decade economic growth fuelled by huge oil and gas export earnings has convinced the Russian *beau monde* that the period of decay and retreat is over. Instead of a country in crisis, Russia today is seen by the current leadership as an "energy superpower" having its own "ideological project" that has to be protected by military force. Accordingly, nuclear weapons are thought to be the condition for Russian sovereignty, a guarantee of its independent foreign policy, and a key means of deterrence of "ideological competitors".¹³ However, despite a recent sense that the country has been restored to *grandeur*, Russia's leadership cannot but understand that its conventional armed forces are far behind NATO troops in Europe, as well as Chinese, American and Japanese forces in the Far East, and that Russia has not been able to take advantage of the "revolution in military affairs". Just as significant is the fact that substantial parts of Russia's military command, captains of military industrial complex, and academic and political elites are not interested in ending nuclear deterrence between Russia and the United States, because doing so would result in a substantial deterioration of the social, political and economic status of a number of influential interest groups associated with developing, producing, and servicing nuclear weapons and their means of delivery.

Recent developments, above all Moscow's panicky reaction to the U.S. plans to build missile defense in Eastern Europe, suggest that the West is seen by Russia's leadership as a direct military threat. Partly, this results from enduring paranoia typical of Soviet strategic thinking. Partly, a vision of the West as an imminent threat to Russia comes from the theory that in the foreseeable future global demand for hydrocarbons will outstrip

¹² See "The Address of the President of the Russian Federation to the Federal Assembly on the National Security", Moscow, 1996, p. 24 (in Russian).

¹³ Russian First Vice Prime Minister and former Minister of Defense Sergey Ivanov, known to be close to Putin, has written: "Today, Russia has returned itself in full measure to the status of great power exercising global responsibility for the situation in the world and for the future of human civilization. ... By proclaiming its own ideological project Russia has entered into a brutal and uncompromising competitive struggle. ... The fate of Russia as a sovereign state depends on its ability to respond adequately to attempts of pressure from the outside as well as to direct aggression. ... Due to the existing geopolitical risks we rely on the qualitative improvement of strategic forces, so as to eliminate the aggressor by a retaliatory strike or by launching under attack in any situation". Sergey Ivanov, "The Triad of National Values", *Izvestiya*, July 13, 2006, <http://www.mil.ru/847/1291/12671/index.shtml?id=14769> (in Russian).

global supply of them leading thus to "wars for energy resources". By this logic, Russia should capitalize on its unique, god-given position as one of the major world energy-exporting countries, while at the same time protecting its energy reserves from encroachment by the main energy-importing actors, including the United States, Europe, and China. This requires developing powerful military forces, the main element of which is nuclear.

Yet despite the militant anti-western rhetoric, rocketing growth of defense spending since 2000, and development of new nuclear weapons, military conflict in Europe between Russia and NATO is hardly possible; there are no sufficient political prerequisites to justify nuclear brinkmanship. Regular military exercises of Russian and Byelorussian armies including "demonstrational use" of nuclear weapons are manifestations of Moscow's irritation with NATO's eastward enlargement rather than genuine training for future combat operations. NATO will not risk a war in Europe to restore democracy or even stop massive violation of human rights in Belarus, just as Russian leaders will not risk the existence of the country to save their client regime in Minsk.

More dangerous developments are possible in the South Caucasus. In the scenario of a new Armenian-Azerbaijani war over Nagorno-Karabakh - highly hypothetical for the moment - Russian troops stationed in Armenia might be taken hostages. A lack of communication with troops in Armenia would prohibit Moscow from supporting them effectively. As a result, Moscow will be challenged with the dilemma of either allowing its military contingent in the South Caucasus to be defeated, or threatening the use of nuclear weapons to stop Turkey's forces, thus initiating a conflict with NATO.

The Russian strategic attitude toward China is contradictory. Official Russian rhetoric would suggest that Russia's main foreign policy priority is strengthening the "strategic partnership," which is seen by Moscow as an informal political-military alliance with China directed against the United States and destructive Islamic forces in Central Asia. But the very idea of a Sino-Russian formal or informal alliance is mere wishful thinking. China's official strategy excludes military alliances with other countries. Economic and hence normal political relations with the United States are much more important for China than a partnership with Russia, due to the huge volume of Chinese-American trade, as well as China's interest in acquiring new technologies and investments from the United States. Beijing would never sacrifice these interests in a conflict between the U.S. and Russia. Finally, despite all the political and diplomatic rhetoric about "strategic partnership" Beijing understands perfectly well that Russia is turning into a "petro-state", that it is losing its prior technological edge, and that it is incapable of preventing the demographic crisis that is especially serious in the eastern parts of the country.

Russian elites maintain the notion of a Sino-Russian political and military alliance, while at the same time regarding China as a potential

military threat that can only be deterred by nuclear weapons¹⁴. Although such concerns would never be made public for obvious reasons, they are very real. In a sense, this concern stems logically from the "war for resources" theory that is the ideological substructure for the current Russian regime. Russians are concerned also with demographic imbalance between Russian Far East and Chinese north-eastern provinces which may result in massive Chinese expansion into Siberia. They worry about future competition between Russia and China for energy resources of Central Asia and the Caspian, as well as potential Chinese encroachment over Russian energy resources in Siberia and the Far East. Moreover, they are concerned with the superiority of Chinese armed forces deployed in China's two northern military regions - Beijing and Shenyang - over the Russian army in East Siberia and the Far East.

The consequences of current Russian nuclear strategy are twofold. First, nuclear weapons programs consume a lot of financial, intellectual and material resources that could otherwise be used for the reform and modernization of Russian conventional forces. Weakness of conventional forces, in turn, fuels "nuclearization" of Russian military strategy and its orientation toward first use of nuclear weapons. Second, a first use nuclear strategy even in a form of "demonstrative strikes" decreases strategic stability and increases chances that a crisis will deteriorate into a nuclear conflict. Of course, Russian strategists may hope that Russia's first-strike strategy encourages a potential enemy to worry about escalation to the nuclear level and therefore deters them from pressing Russia too far. Yet, equally probable would be a pre-emptive strike aimed at disarming or limiting damage. For a potential victim, demonstrative strategic or tactical strikes produce an unacceptable threat, because nobody can know beforehand whether a bomb is headed to unpopulated deserted areas, or to New York or Boston. In a wider context, to perform a "non-suicidal" first strike strategy a country would need to dominate at subsequent stages of escalation ladder.¹⁵ This is not the case for Russia, whose nuclear forces are growing inferior to American. Furthermore, countries that are potential targets of Russian "demonstrative strikes" have no other option but to maintain and modernize their nuclear deterrents.

¹⁴ The then Head of the Center for military-political studies of the General Staff of the Armed Forces, Lieutenant-General Vladimir Ostankov, has written in 2005: "Because of the Chinese factor, Russia's policy is to be founded on nuclear weapons and presumes strategic cooperation with the West". In: "Geopolitical Problems and Possibility of their Solution in a Context of a Security of Russia", *The Military Thought*, N° 1, 2005, p. 7.

¹⁵ Analyzing Russia's first strike strategy Alexei Arbatov wrote quite rightly: "This act should not be purely suicidal for the initiating party [i.e. Russia]. Hence, the initiator should possess a clear advantage in nuclear capabilities in order to achieve his military objectives, dominate escalation and prevent an opponent's nuclear counteractions, which may deny these gains or inflict overwhelming damage on one's state". Alexei Arbatov, *Russian military doctrine and strategic nuclear forces to the year 2000 and beyond*, Paper for the conference "Russian Defense Policy towards the Year 2000", Naval Postgraduate School, Monterey, California, March 26-27, 1997, <http://www.fas.org/nuke/guide/russia/doctrine/arbato.htm>.

China's Nuclear Future

China's continuing spectacular economic growth poses two main questions. First, will China continue providing a solid base for economic and military modernization? Second, what policy will Beijing pursue when and if it decides that military and economic modernization have attained their ends? These questions are wide open. The future of China remains uncertain, and hence its effect on global nuclear order is unclear.

Market reforms, China's involvement in the global economy and in multilateral institutions may assist its positive interaction with mature democracies. In theory, one cannot rule out the possibility of gradual democratization of China, though it is hardly possible to define today either the pace of this process, or its parameters. Yet if it occurs, it will be revolutionary, promoting democracy and enhancing international stability in Pacific and Eastern Eurasia, and thereby reducing the weight of nuclear weapons in strategic relationships in these regions. Such an evolution is possible but today seems unlikely.

If China's economic growth continues and its current strategic goals are not changed, its international strategy is likely to evolve into an expansionist mode. There are reasons to suppose that current Chinese official declarations and documents articulating peaceful intentions do not expose the true purposes and plans of its political leadership and military command. They rather disguise long-term objectives amenable to Deng Xiaoping's famous directive "Observe calmly; secure our position; cope with affairs calmly; hide our capacities and bide our time; be good at maintaining a low profile; never claim leadership".

Beijing's medium and long-term strategic intentions can be partly grasped, by looking at its current military modernization and build-up. These are based on perceptions and forecasts of threats as well as strategic plans and goals. In other words, knowing what kind of wars China is preparing for helps us understand its longer term foreign policy objectives.

Firstly, Beijing emphasizes the development of asymmetric warfare capabilities aimed at enemy vulnerabilities, real or imagined, and in particular computer and communication networks (the so called Assassin Mace strategy).¹⁶ Secondly, China's declaratory nuclear policy comes to a few very general points: no first use; deterring nuclear attack or threat of such attack; limited development of nuclear weapons; and "counterattack in self-defense".¹⁷ Practically China's principal effort in the nuclear field is the

¹⁶ The Assassin's Mace strategy is an asymmetric strategy that seeks to leverage China's advantages by exploiting the perceived vulnerabilities of potential opponents. See: "Military Power of the People's Republic of China 2007" in: DoD, Office of the Secretary of Defense, *Annual Report to Congress 2007*, p. 23.

¹⁷ China's official document says that the fundamental goal of its nuclear force "is to deter other countries from using or threatening to use nuclear weapons against China. China remains firmly committed to the policy of no first use of nuclear weapons at any time and under any circumstances. It unconditionally undertakes

modernization of its nuclear forces, yet most probably it does not strive to increase substantially their overall numerical strength. Moreover, it is most likely developing its nuclear forces according to a strategy of "minimal deterrence". In fact, it has about 105 nuclear warheads on ICBMs, IRBMs, or SLBMs. It also has about 300 short-range DF-15 missiles that may be used for both nuclear and conventional missions. The main focus of modernization programs is to build and deploy more survivable modern missiles and thereby provide a credible deterrent while replacing current obsolescent nuclear forces, the bulk of which acquired initial operational capability in 1971-81¹⁸. Third, China is modernizing all fighting services of its conventional forces with a view to preparing them to win regional, information-intensive wars.¹⁹

Chinese official views about the future profile of their land forces are especially important. The country is moving "from regional defense to trans-regional mobility, and improving its capabilities in air-ground integrated operations, long-distance maneuvers, rapid assaults and special operations"²⁰. In other words, the Chinese military command is planning large-scale offensive operations in bordering regions – that is the most probable practical meaning of a move "from regional defense to trans-regional mobility". China is thus preparing for regional wars besides the possible "liberation" of Taiwan. This requires naval and air dominance, as well massive amphibious capabilities, more than it requires powerful land forces. In this light Chinese nuclear forces can be seen above all as an instrument of "asymmetric warfare", a part of Assassin Mace, and their practical mission will be to deter third-party involvement in local and regional wars and conflicts along China's borders. However, they are also designed to prevent the possible use of nuclear weapons by nuclear states, like Russia and India that may be threatened by Chinese expansion.

Future local and regional wars along China's border can hardly be initiated by China's neighbors. None of China's neighbors, including Russia, is capable of a massive armed invasion of Chinese territory, either because they lack forces or because of mountainous terrain, for example along the Himalayan border. The prospect of a Japanese or American landing operation on the Chinese coast seems equally fantastic. So, preparations for local and regional wars that are to be waged by land forces

not to use or threaten to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones, and stands for the comprehensive prohibition and complete elimination of nuclear weapons. China upholds the principles of counterattack in self-defence and limited development of nuclear weapons, and aims at building a lean and effective nuclear force capable of meeting national security needs. It endeavors to ensure the security and reliability of its nuclear weapons and maintains a credible nuclear deterrent force. ... China exercises great restraint in developing its nuclear force. It has never entered into and will never enter into a nuclear arms race with any other country". *China's National Defence in 2006*, <http://china.org.cn/english/China/194332.htm>.

¹⁸ The only exceptions are intermediate-range land-based ballistic missile DF-21A (CSS-5 Mod1/2), deployed for the first time in 1991, and sea-based system JL-1, deployed in 1986.

¹⁹ *China's National Defense in 2006*, <http://china.org.cn/english/China/194332.htm>.

²⁰ *Ibid.*

are evidence of the expansionist nature of Chinese long-term international strategy. The most probable rationale for such wars would be a Chinese invasion of the Russian Far East, Central Asia, the Korean peninsula, or South-East Asia. One also cannot ignore the prospect that Chinese maritime expansion might trigger a Sino-American military confrontation with a nuclear element. Beijing openly declares that its "Navy aims at gradual extension of strategic depth for offshore defensive operations and to enhance capabilities in integrated maritime operations and nuclear counterattacks".²¹

The prospect of Chinese expansion encourages China's neighbors to maintain or acquire nuclear weapons, openly or otherwise. In particular, neither Moscow nor Delhi can ignore Chinese modernization of conventional forces or development of new nuclear weapons and delivery means, including medium-range missiles able to hit targets on their soil.

In the third Chinese scenario, the difficulties of economic adjustment provoke a social and economic crisis in China, fraught with major consequences both domestically and for international politics. Despite impressive growth, China still is not a modern economy. Many urgent socioeconomic problems remain. A large part of the Chinese population lives in rural areas with a low or very low level of economic development. Urban centers face the growing pressure of rural migrants. There is an increasing gap between the material ambitions of the population and the means for realizing them, especially among the younger generations. Unresolved socioeconomic problems, increasing tensions between the totalitarian political regime and a modernizing economy, and growing gaps in the level of economic development of different regions may lead to political upheavals, destabilization, change of the regime, collapse of the state and other unpredictable consequences. It is hardly possible to assess their impact on Chinese nuclear policy now, yet one can speculate that it would be negative. Domestic instabilities and turmoil might lead to a new "strong" regime capable of uniting the country and resuming centralized control of the regions. Such a regime might be interested in the transformation of domestic tensions into an aggressive foreign policy. In this case, the probability of Chinese interventions into nearby territories, which could escalate to large-scale international conflicts, would rise substantially.

²¹ *Ibid.*

The Proliferation Problem

Nuclear proliferation is one of the most important trends of the global nuclear order after the end of the Cold War. In the end of the last decade India and Pakistan acquired nuclear weapons. In 2006 North Korea tested - to all appearance not fully successfully - an explosive nuclear device. Iran is almost certainly developing nuclear weapons and may acquire them in a few next years. This tendency fuels substantial concern especially that a nuclear weapon developed by one of these countries might fall into terrorist hands. It is thus most disturbing that the efforts even of the world's most powerful nations have not been able to stop this proliferation of nuclear arms.

Conventional wisdom holds that the main driving force of nuclear proliferation is the so called "asymmetric strategy" pursued by "poor" nations in order to overcome their conventional inferiority. Through the lens of this theory, nuclear proliferation (and even China's nuclear build-up) is mainly a reaction to real or imaginary threats against third world countries resulting from a U.S. policy of regional domination based on conventional superiority. The logical conclusion is that to prevent and reverse nuclear proliferation the United States should temper its relations with the developing world and restrain itself from using force or taking a unilateral approach to proliferators.

However, the argument that proliferation in developing countries is caused directly by U.S. interventionism is only half right. Israel developed its nuclear weapons not to deter an American threat but to prevent its annihilation if Israeli conventional forces were defeated by Arab forces. India has manufactured nuclear weapons mainly to deter Chinese, not American, nuclear attack. The principal reason for Pakistan to create its own nuclear force was Indian nuclear capabilities. North Korean nuclear weapons may be intended to deter a hypothetical U.S. attack on North Korea, but most probably they are intended as a bargaining chip to gain economic aid and guarantees of non-intervention in the case of a domestic power struggle during a succession.

The Iranian case is more complicated. It is noteworthy that all factions of Iran's political class consider nuclear weapons to be a symbol of national grandeur and an instrument for establishing the country's international position as regional hegemonic power. Even for relatively moderate part of Iran's establishment, a new ideological zeal – an appeal

for "A War on the West" – is an attractive slogan today.²² For radicals, including the current president Ahmadinejad, nuclear weapons can be, aside from everything else, a tool to deter U.S. or other intervention in the case of an Iranian attack on a neighbor, for example in the Gulf.

Continuation of Iran's and North Korea's nuclear programs will, sooner or later, result in nuclear "dominos" in the Pacific and the Middle East. The North Korean nuclear test on October 9, 2006, means that the previous policy of the G5 states (the United States, China, Japan, South Korea and Russia) aimed at the diplomatic resolution of the Korean nuclear crisis has failed. The understanding of February 13, 2007 has reduced tensions regarding the North Korean nuclear program yet it does not resolve the issue as such. In fact, this understanding presumes that North Korea will shut down the Yongbyon nuclear facility while the G5 countries resume supplies of fuel. It also presumes that the United States and the North Korea start bilateral talks aimed at normalization of their relations. The principal flaw in this accord is that North Korea may resume operations of its nuclear facilities in Yongbyon at any time it likes, just as it did five years ago. Yet of even greater importance is the fact that it does not touch the issue of the North Korean plutonium produced in recent years, nor North Korea's nuclear devices – assuming they exist.

The longer the North Korean nuclear program is not reversed, the stronger Japan's motivation to build its own nuclear weapons will be.²³ Once the decision to go nuclear is taken, it would only take a few months for Tokyo to produce its first weapons. This would most likely be followed by the development of high technology C4ISR systems, as well as missiles capable of delivering "surgical" strikes on North Korea. China would then respond with a build-up of nuclear-armed missiles, further stimulating a regional arms race. This would in turn lead South Korea and Taiwan to take on the construction of nuclear weapons. Also, Japan, Taiwan, and South Korea would accelerate the creation of an antimissile defense system together with the United States. The United States would increase its military presence in Northeast Asia, including warheads and delivery systems for limited nuclear war, improved BMD systems and conventional precise counterforce capabilities. The result of this chain of events would be a vicious circle leading to a further arms race and nuclearization of the region. In the end, this could result in the emergence of a new security configuration in the North Pacific.

²² For instance, the former President of Iran Mohammad Khatami, among top moderates in Iran's hierarchy, proclaimed, "Today, Western political slogans extol freedom, human rights, democracy and nation states. Our war with the West in these spheres is a matter of life and death." Seyed Mohammad Khatami, *The Fear of a Tempest*, Moscow, 2001, p. 115 (in Russian).

²³ Japan has about 5.6 tons of plutonium, which could be used to build several thousand nuclear weapons. See: George Perkovich, Jessica T. Mathews, Joseph Cirincione, Rose Gottemoeller, and Jon B. Wolfstal, *Universal Compliance: A Strategy for Nuclear Security*, Carnegie Endowment for International Peace, 2005, p. 106.

A similar "nuclear domino effect" could occur in the Middle East if the Iranian nuclear program is not stopped. Many analysts believe that a few Arab states, including Egypt and Saudi Arabia, as well as Turkey, will develop their own nuclear weapons to deter possible Iranian expansion. This would result in the emergence of at least three regional axes of nuclear confrontation: Iran – Israel, Iran – Arab countries, and Arab countries – Israel. This strategic configuration might be stable because any conflict in the Middle East could easily result in total devastation of the region. Yet at the same time it is impossible to ignore increasing threat of accidental nuclear war, or a nuclear war provoked by Islamic-led terrorist groups, or a possibility that nuclear weapons are acquired by Jihadists.

How could this be prevented? If current trends are not reversed, the probability of regional nuclear war due to mistake, miscalculation, or irrationality of regional ruling cliques will grow. Meanwhile, the threat of nuclear terrorism is increasing. Nuclear war, and even a realistic prospect of such war, in the Middle East, especially in the Gulf area, would have horrific consequences for global oil market. Yet neither the UN, the EU, the G8, nor individual countries have developed effective methods for neutralizing growing threats and challenges resulting from nuclear proliferation and for halting the current nuclear programs of proliferating states. This creates a stimulus for a substantial rethink of current non-proliferation strategies. In particular, a new approach should be developed that would combine "soft" power, robust sanctions, regime change, and the use of force, including, in extreme cases, not only hi-tech conventional weapons but also "mini-nukes".

Conclusion

Thus, by the beginning of the XXIst century two contradictory tendencies are emerging. The first is the appearance of security challenges that cannot be resolved, managed, deterred, neutralized, or otherwise overcome by nuclear weapons. On the one hand, this trend demands the development of new strategies, methods and equipment other than nuclear forces. On the other hand, it produces the illusion that nuclear weapons themselves are being marginalized by the revolution in military affairs and the growing effectiveness of conventional forces. But this belief is fundamentally flawed. Nuclear weapons are not being marginalized. Rather, their roles are evolving in the global strategic landscape. In short, the rise of non-traditional threats does not make nuclear weapons go away, it only serves to distract from their enduring significance.

The emergence of these new threats risks obscuring a second fundamental trend that is likely to grow ever more significant in the future. The fundamental uncertainty that characterizes international relations today encourages nuclear states to keep their nuclear arsenals, and encourages non-nuclear states to develop their own nuclear weapons as the ultimate guarantee of security. Thus, Chinese and Russian nuclear strategies result in the formation of new axes of nuclear deterrence. Continuing nuclear proliferation is fraught with the growing danger of nuclear terrorism and regional nuclear wars.

Instead of a hierarchical, petrified, and fossilized nuclear order typical of the Cold War a new system is emerging. This system is more dynamic, more decentralized, and far more fragmented than the one it has replaced. The fourth world war outlined by Jean Baudrillard may be acquiring a nuclear dimension.

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