

# ***THE NUCLEAR FORCES AND DOCTRINE OF THE RUSSIAN FEDERATION***

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Foreword By:  
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A Publication of the United States Nuclear Strategy Forum, 2006  
Washington, DC



Publication No. 0003

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ISBN 0-9776221-0-X

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## Foreword

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The United States Nuclear Strategy Forum has been established for the purpose of contributing to a better understanding in Congress and by the interested public of the rationale, purposes, and directions in U.S. strategic policy introduced by the 2001 Nuclear Posture Review and subsequent Department of Defense and White House initiatives.

As part of its educational agenda, the U.S. Nuclear Strategy Forum will examine and report on the spectrum of issues associated with the implementation of the NPR, including its implementation under a range of possible future political-military contexts and conditions.

The Forum shall be available to the Congress for hearings and briefings, as requested. It shall provide a means for the Congress to be advised by those who have experience establishing and articulating U.S. strategic policy and managing U.S. weapons and strategy.

Finally, the United States Nuclear Strategy Forum will seek to provide the means for cross-fertilization between generations of strategic force and policy experts, including those who guided the West successfully through the Cold War, and those who will inherit this legacy.

This is the third in a series of publications by the United States Nuclear Strategy Forum. The first two publications, *Understanding American Nuclear Weapons Policy And Strategy* and *The Nuclear Posture Review: Setting The Record Straight*, explained the philosophy and objectives of current thinking about the role of nuclear weapons in the national security policy of the United States. In particular, these first two publications sought to correct the many misconceptions and misrepresentations that have sprung up about the Nuclear Posture Review, that is the basis for United States policy and plans involving nuclear weapons.

It is appropriate that this third publication of the United States Nuclear Strategy Forum, *The Nuclear Forces and Doctrine of the Russian Federation*, focuses on the evolving nuclear strategy of Russia. The end of the Cold War and the rise of a new relationship between Moscow and Washington is probably the single most important factor driving the Nuclear Posture Review and the new direction in U.S. thinking about the role of nuclear weapons in national security policy. Indeed, a cornerstone assumption of the NPR is that Russia is no longer an enemy. Moreover, the Moscow Treaty, that will

reduce by two-thirds the strategic nuclear forces of the United States and Russia—the largest reduction in strategic nuclear arms in history—is based on the judgment that the sides, if not yet true strategic partners, are at least no longer hostile.

Yet many Americans will be surprised to learn that the official military doctrine of the Russian General Staff still views the United States as a potential enemy, and Russian nuclear programs and strategy reflect a perpetuation of Cold War attitudes. We must be mindful that the Nuclear Posture Review is a work in progress, including in its most fundamental assumptions about the future geopolitical threat environment. The conditions that would lead the United States to re-evaluate or reverse its threat perceptions as regards Russia remain undefined. This is, arguably, the single most important piece of unfinished business in the NPR.

The disturbing trends in Russian military doctrine and nuclear strategy should be a wake-up call to Washington. Our historic opportunity to reconstruct relations with Moscow on the basis of friendship, though we have made great progress, is not yet an accomplished fact. The United States and Russia can and should be natural allies on a number of fronts, for example: in the war on terrorism; in non-proliferation; in the development of free Russian political and economic institutions; and in space exploration, environmental protection and other great scientific endeavors.

Congress can and should help the Administration build a true strategic partnership with Russia by undertaking creative and proactive initiatives to achieve that goal. For example, I have proposed a plan entitled *A New Time, A New Beginning* for building American-Russian friendship on the deep foundations of political, military, economic, and scientific cooperation, that has been endorsed by Russian President Vladimir Putin. Washington and Moscow owe it to the children of the United States and Russia that our joint victory over the forces of totalitarianism should be made irreversible, and that the U.S.-Russian strategic nuclear balance should become an artifact of the Cold War, irrelevant to a strong strategic partnership, secured by deeply shared interests and values.

*Congressman Curt Weldon  
Vice Chairman  
House Armed Services Committee*

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## Executive Summary

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Nuclear weapons and strategic strike capability are the highest priority of the Russian Federation. The Russian Government has announced the lowest nuclear weapons use threshold in the world. President Putin and Defense Minister Ivanov have stated that Russia is deploying both advanced new strategic nuclear delivery vehicles and new types of nuclear weapons. Russia also has a very extensive capability to deliver attacks using nuclear electromagnetic pulse (EMP). According to former Minister of Atomic Energy Viktor Mikhaylov this includes a “clean” nuclear earth penetrator weapon. In addition, the Russian press has reported the development of precision low yield nuclear weapons with yields of tens to hundreds of tons of TNT. To develop these weapons the Russian press reports that President Yeltsin authorized hydronuclear tests in 1999.

Russian military leaders have openly stated that Russia has deliberately lowered the nuclear use threshold and talk about the use of nuclear weapons in regional and local wars. This is attributed to weakness in conventional forces. However, a number of respected Russian military analysts argue that the real motive is to increase political clout against the United States and NATO. The Russian press routinely reports that Russia is conducting exercises, with Putin and Ivanov present, involving simulated nuclear weapon strikes against the U.S. and NATO. Indeed, this was even acknowledged in 1999 by then Russian Defense Minister Marshal Sergeyev.

Russia has formally adopted a nuclear escalation doctrine in which the introduction of nuclear weapons into a conventional conflict is characterized as “de-escalation” of the conflict. Unlike NATO’s “flexible response” doctrine of the 1960s—the nearest parallel to current Russian thinking—there is a dangerous assumption that the use of few nuclear weapons will end a conflict with a Russian victory. Russian military doctrine allows for the first use of nuclear weapons in situations that go beyond the declared policy of any other nuclear power. The low Russian nuclear weapons’ use threshold is linked to the old Soviet view of the world and Russia’s role in it as well as the current Russian dreams of grandeur about its historical role as a superpower which can not be supported by the Russian economy. There is clearly a great deal of continuity in Soviet and Russian thinking about the military utility of nuclear weapons.

Russia’s civilian and military leadership have often displayed nostalgia for the Soviet Union and its power. While Russia’s leaders are well aware of the political sensitivity concerning the use of nuclear weapons in Western nations, they continue, nevertheless, to engage in this rhetoric. Russia’s strategic weapons efforts have no comparable counterpart anywhere in the world. This needs to be monitored carefully. Failure to view Russia realistically could endanger U.S. national security in the future. Despite improvement in U.S.-Russian relations under President Bush, our relationship with

Russia must remain a cautionary one because of the political instability of a nation where a substantial portion of the population lives in poverty while much of the elite dreams of restoring Soviet power.

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## The Nuclear Weapons Debate in Russia

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Discussion of nuclear weapons issues in Russia is markedly different from that of the West. Amazingly, there are pro-nuclear weapons political demonstrations in Russia.<sup>1</sup> Even religious leaders of the Russian Federation support nuclear weapons. Indeed, the Russian Orthodox Church has created Patron Saints for the strategic nuclear forces.<sup>2</sup> Moreover, Russian political leaders talk about nuclear weapons in ways that no Western leader would.

In the post-Cold War world, Western political leaders of all political persuasions generally avoid discussion of nuclear weapon issues. When they do talk about nuclear weapons, they rarely ever suggest the possibility that nuclear weapons might be used in circumstances other than *in extremis*—in response to nuclear or other WMD attack. In stark contrast, the most senior Russian officials frequently speak with pride about the development, deployment and even the use of advanced strategic nuclear weapons. The current Russian nuclear weapons' debate resembles the Western debate at the height of the Cold War—approximately the late 1950s—a period in which there was great emphasis on nuclear weapons and escalation in the West to deter a Warsaw Pact invasion. However, four decades later, Russia publicly announced the lowest nuclear weapons use threshold in the world. Colonel-General Vladimir Yakovlev, head of Russia's Strategic Rocket Forces, stated in a 1999 interview that, "Russia, for objective reasons, is forced to lower the threshold for using nuclear weapons, extend the nuclear deterrent to smaller-scale conflicts and openly warn potential opponents about this."<sup>3</sup>

On April 29, 1999 Russian President Boris Yeltsin at a televised Russian National Security Council meeting (a very unusual event) affirmed that, "[T]he nuclear forces have been and remain the key element of the strategy of ensuring national security and military might of the Country."<sup>4</sup> It is perhaps one of great ironies of history that Boris Yeltsin, one of the principal participants in the demise of the Soviet Union, who brought freedom to several hundred million people, and who clearly did not believe in an expanded role for nuclear weapons (In May 1998 Yeltsin had declared, "The future does not belong to nuclear weapons. In the final analysis we will eliminate nuclear weapons."<sup>5</sup>) signed the decrees that started an unfortunate chain of events that would result in the deliberate lowering of the nuclear use threshold. Indeed, there were

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widespread Russian press reports that President Yeltsin, at the urging of then cabinet Secretary Vladimir Putin, authorized the development of new nuclear weapons. On January 12, 2005 Russian Defense Minister Sergei Ivanov confirmed that, "New types of nuclear weapons are already emerging in Russia."<sup>6</sup>

Despite President Putin's assertion that Russian nuclear doctrine "is essentially not different [from the] guidance the United States and its nuclear allies use in their military planning," it is clearly fundamentally different. Western leaders do not brag about the development of new types of strategic nuclear delivery systems or new nuclear weapons; in fact, they generally avoid speaking about nuclear weapons whenever possible. The most senior Russian leaders do it repeatedly, and they obviously believe that they derive political benefits from doing so.

Starting in the spring of 2003 President Putin began to make statements concerning what respected Russian defense analyst Pavel Felgengauer calls "a supernew nuclear weapon, which, by definition can only be directed against the United States."<sup>7</sup> Putin emphatically declared that, "Russia would soon have a new hypersonic missile...[which] will be capable of destroying targets at intercontinental range, with hypersonic speed and high accuracy, and with the capability of a deep maneuver both in altitude as well as heading....No country in the world has systems like this. Russia will reliably ensure its security for the long historical term."<sup>8</sup> He continued, "Russia must work for a breakthrough in developing new generation defense hardware," including new strategic missiles.<sup>9</sup> He has subsequently made many similar statements.<sup>10</sup> Defense Minister Ivanov has done the same. For example, on February 13, 2005 he declared, "We actively update our entire nuclear triad, disregarding quantity, but pay main attention to quality."<sup>11</sup>

President Putin and Defense Minister Ivanov certainly understand that the Western media and political leadership do not react well to such statements about nuclear weapons. For example, in the context of the October 2003 Colorado Springs NATO summit, Ivanov declared in a press interview that, "Russia is not considering in any scenarios of options a first strike using strategic nuclear weapons."<sup>12</sup> However, upon his return to Russia, he was asked why Russia didn't have preemptive nuclear strike options like the United States. Ivanov replied in an extraordinarily candid manner that says as much about the nature of the nuclear weapons debate in Russia as it does about what Ivanov actually believes:

What we say is one thing. That sounds cynical, but everything that we plan does not necessarily have to be made public. We believe that from the foreign policy viewpoint it is better to say that. But what we actually do is an entirely different matter. If we are talking about nuclear weapons, they are the chief components of our security. And there can be no doubt that attention toward them cannot be relaxed.<sup>13</sup>

To be politically respectable in Russia, Defense Minister Ivanov undercut the international political message of his original statement and strongly implied that Russia had preemptive nuclear strike options and, moreover, that they make “dovish” statements about nuclear weapons in international fora for political reasons since they play well with the international community. While there may be some truth in the explanation that such statements are made for internal political purposes, such statements continued after the 2004 Russian Presidential election was over and have not abated.

Both President Putin and Defense Minister Ivanov have also displayed nostalgia for the Soviet Union and its power. In June 2000 Putin affirmed that, “Russia is not acting to acquire the status of a world power. It is a world power.”<sup>14</sup> Perhaps with the objective of fostering this perception, in February 2004 Putin stated: “Russia was and will remain one of the world’s major nuclear powers. People may like it or not. But they will have to reckon with it.”<sup>15</sup> In November 2004 Putin observed that, “Not only are we researching and successfully testing the latest missile and nuclear systems. I am confident that they will be in service in the next few years. And these are developments and systems that the nuclear states do not have and will not have in the next few years. I want everyone to understand this: the military, all the Russian society, the government.”<sup>16</sup> On April 25, 2005, he avowed that, “The collapse of the Soviet Union was the greatest geopolitical catastrophe of the century.”<sup>17</sup> As Putin critic Semen Novoprudskiy wrote in May 2005, “The main geopolitical catastrophe of the [20<sup>th</sup>] century was ...the October revolution of 1917, which led to civil war and Stalinism, and also partly to World War II.”<sup>18</sup> One might also add that it almost led to World War III.

Today the only basis for Russia’s claims to world power status is its nuclear capability. By any other measure of power Russia would hardly qualify as a medium sized power, much less a world power.<sup>19</sup> Its instinctive response to any political-military development not to its liking is to threaten to lower the nuclear use threshold. As Andrey Piontovskiy, Director of the Independent Center for Strategic Studies, and Vitaliy Tsygichko, Academician of the Russian Academy of Natural Sciences wrote in February 2001:

Our current foreign policy is based on a postulate that is a relic of the cold war—that the United States is *a priori* hostile to Russia—and on two main myths. The first myth: nuclear might (the only kind we have) guarantees us security from external threats and makes it possible to retain superpower status and corresponding influence on world affairs. The second myth: influential power centers—Europe, China, India, and the Islamic world—worried by the increasing role of the United States, are prepared to really counter it. We think that all these tenets are untrue.<sup>20</sup>

While U.S.-Russian relations have improved considerably since 2001, the Soviet attitude toward nuclear weapons remains essentially unchanged in Russia today.

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## **Nuclear Weapons and Russian Perceptions of Threats to Their Security**

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Boris Yeltsin came into power with the clear intent of dramatically improving U.S.-Russian relations. This intention was certainly reciprocated in the Bush and Clinton Administrations. Despite the intentions of the top leaders, and the fact that the Clinton Administration had numerous Russophiles in high office, U.S.-Russian relations deteriorated during the Clinton period.

Aleksandr Golts, the author of a major study on Russian military reform writes: “the entire external policy of Boris Yeltsin was built on maintaining the view that Russia first and foremost would remain a great military power.”<sup>21</sup> This proved impossible due to President Yeltsin’s failure to create a viable economic system. This resulted in corruption, decline in standard of living and a decline in national power that in effect empowered the former Soviet bureaucracy and military elite.<sup>22</sup> By the end of the Yeltsin period the U.S. was in a mini-military confrontation with Russia over Allied Force attacks in Kosovo and Serbia. Had Russia been significantly stronger it is possible that this crisis would have escalated. There was talk of war in Russia and actual threats from Duma members concerning nuclear EMP attacks on the United States.<sup>23</sup>

As part of Yeltsin’s effort to change Russia’s relationship vis-à-vis the rest of the world he promulgated an official military doctrine which stated that Russia had “no enemies” although this doctrine rejected the notional Soviet doctrine of no first use of nuclear weapons.<sup>24</sup> The official Russian position with respect to their nuclear weapons’ targeting policy is reflected in Defense Minister Ivanov’s February 2005 statement that, Russian nuclear weapons “will not be targeted against any country....”<sup>25</sup>

Such statements are hypocritical. Despite the end of the Cold War and the official Russian doctrine that the Russian Federation has “no enemies,” it is absolutely clear that most Russians, including the military and governmental bureaucracy, regard the United States and NATO as the enemy. Today, while Russian officials speak about how friendly U.S.-Russian relations are, the fact is that anti-U.S. and anti-NATO feeling is rampant in the Russian Federation, including both in the Government and among the public at large.

A common theme in the Russian press is that an attack on Russia by the West is imminent. A 2003 article written under the pseudonym “Vladimir Krasilnikov” reportedly caused a stir in the highest official circles. “Krasilnikov” asserted that that the U.S. was

preparing to attack Russia by 2010: “Several hundred of these missiles [cruise missiles] with low-yield deep-penetrating nuclear warheads with quintuple redundancy will destroy the 100 silo-based Topols and command posts....By 2010 the United States will have achieved a PERMANENT state of mobilization. The collapse of the global system of deterrence as a whole represents a deadly threat to us.”<sup>26</sup> (Emphasis in original.)

Putin critic Masha Lipman blames this trend toward hostility to the West on Putin’s contention that he has “revived communist symbols, along with the imagery of Russia as an isolated country targeted by unnamed—but most likely Western—enemies seeking to destroy it.”<sup>27</sup> It is interesting that immediately after the Beslan tragedy President Putin declared: “Some want to wrest from us as fat a morsel as possible and others are helping them. They are helping them in the belief that Russia, as one of the biggest nuclear powers, still represents a threat to someone. Therefore this threat has to be eliminated. And terrorism is, of course, only a tool for achieving these goals.”<sup>28</sup> As Russian commentator Ivan Safranchuk noted while Putin did not name the enemies, they obviously are, “America, NATO, and the West in general.”<sup>29</sup>

There is little question that the official doctrine that “Russia has no enemies” and that their nuclear weapons are targeted against no state has little or no meaning to senior Russian military and Ministry of Nuclear Energy leaders. Despite the official doctrine, Colonel-General Vladimir Muravyev declared in a December 1, 1999 article that, “The concept of nuclear deterrence has been forming over the course of the past several decades of the RF—supporting the balance of nuclear arms with the US according to sum of quantitative...and qualitative...indicators.”<sup>30</sup> This characterization of the United States as the enemy to be deterred is quite striking here because this is in an article that must have gone through a clearance process in the Russian Government.

The intense hostility toward NATO that existed in Russia was reflected at the time of NATO’s military action against Kosovo in 1999 in a great deal of hysterical writing. Indeed, in April 1999, at the time of the decision to develop new nuclear weapons, respected Russian military analyst Pavel Felgengauer reported that, “In the opinion of Russian General Staff experts, what is occurring in Serbia right now is no more than a study of the Alliance long-planned combat operation near Russia’s borders or direct on its territory.”<sup>31</sup> Indeed, “Combat could be initiated, say due to the stupidity of one of the generals (by way of illustration, by the commander of a military district or fleet, or by a formation commander) who, in a burst of patriotism, used improvised weapons to strike into neighboring territory or attack a military target of the potential enemy.”<sup>32</sup> It is noteworthy that Aleksandr Golts, writing about five years later, recorded that there was talk in Russian military circles at that time of launching a nuclear strike against Washington in response to NATO’s military action in the former Yugoslavia.<sup>33</sup>

Then Defense Minister General Igor Sergeyeu in an interview published in Belgrade in 1999 declared that:

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Russia realizes that the modern military-strategic situation in the world is formed in conditions of the United States endeavoring to create a uni-polar world. Today we know that the United States, as well as the military and political leaders of NATO, which are under US influence, can resolve new conflicts by using force. Such an approach to interference in the internal affairs of sovereign countries without any decisions of the UN Security Council, have already been tested in Yugoslavia...Our country is making efforts to create a multi-polar world against the hegemony of any one country. China, India and many other countries share the concept of a multi-polar world and support Russia in opposing the concept of a uni-polar world....[T]he United States must understand the hopelessness of implementing its own foreign policy based on domination through the use of force.<sup>34</sup>

Russian military views about the United States do not appear to be moderating with the passage of time and the improved political relationship under the Bush Administration. When "Urgent Tasks of the Development of the Russian Federation Armed Forces," the first doctrinal publication of the Putin Government, was published by the Russian Defense Ministry in October 2003, it was immediately recognized in Russian commentary that the U.S. and NATO were the unnamed enemies. Duma Deputy Defense Committee Chairman Aleksey Arbatov observed that, "Although the main enemy is not named, it is clear from everything said that the main enemy is considered to be the United States and NATO as before. The wars predicted are global and nuclear, and wide-scale combat operations are foreseen."<sup>35</sup> In February 2004 Colonel-General Baluyevskiy, now Chief of the Russian General Staff and a Deputy Defense Minister, cited this publication and candidly stated that, "if one reads between the lines, it says the principal enemy is America and the entire NATO."<sup>36</sup>

Writing on June 7, 2004, Russian journalist Nikolay Poroskov maintained that Russian hawks today believe that, "The ring of foreign military bases around our country is tightening up, and the threat of invasion is increasingly probable. Assertions of this type, not heard since the days of the USSR, are being made more and more frequently in Russia today."<sup>37</sup> The Russian General Staff, he stated, believes that U.S. "strategic goals over the longer run are the downfall of Russia as the main geopolitical adversary...the conquest of its resources...[and] the actual preparations of a global and aerospace infrastructure for a war for the destruction of China."<sup>38</sup>

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## Russian Nuclear Exercises

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On October 23, 2003, Defense Minister Ivanov pointed out that America was not Russia's enemy. When asked if the threat of strategic nuclear war still exists, he replied that "No, of course not, nobody thinks that. We now look at each other not so much from the standpoint of military confrontation as from the standpoint of economic partnership."<sup>39</sup> If this were really true, why do both Putin and Ivanov personally participate in strategic nuclear strike exercises against the United States and NATO?

In a throw-back to the Soviet period, starting with the Russian ZAPAD-99 [West-99] exercise in 1999, the Russian press has reported that Russia has employed nuclear weapons in exercises against the United States and NATO. At the time Russian Defense Minister Igor Sergeyev actually confirmed that, "Our Army was forced to launch nuclear strikes first which enabled it to achieve a breakthrough in the theater situation."<sup>40</sup> Russian press accounts stated that Russia responded with limited nuclear strikes by cruise missiles launched from Tu-95 and Tu-160 bombers "against countries from whose territories the offensive was launched."<sup>41</sup> Russian journalist Vladimir Mikhaylov revealed that, "the 'West'...clearly was understood to mean the NATO Allied Forces."<sup>42</sup>

More recently, Alexander Golts in *The Army of Russia: 11 Lost Years* added that, "...the enemy opposing the 'Red' side looked just exactly like NATO did in Yugoslavia."<sup>43</sup> The main difference from previous exercises "was the limited use of nuclear weapons. The enemy was forced to cease combat operations only after the fact that our strategic aviation had launched a 'nuclear strike' with cruise missiles into his territory."<sup>44</sup> Moreover, "The idea of flying the strategic bombers out over the Atlantic could only have the view of planning for launching a nuclear strike into the territory of the USA."<sup>45</sup> Golts continued, "exercises in subsequent years were not principally any different...[B]oth in the European as well as in the Asiatic theater of military operations...our General Purposes Forces at best would be able to stop enemy movements into our territory....Terminating his aggression would only come with the use of nuclear weapons. With this goal in mind, strategic bombers would launch a so-called demonstration strike using cruise missiles against target (sic) located in desert or sparsely populated areas of the enemy territory. After that the aggressor avoiding full-scale nuclear war, would move to negotiate. If this did not happen, then a strike would be launched to destroy his strategic missiles with nuclear warheads. The General Staff did not plan past that point, as they themselves felt the onset of full-scale nuclear war would be the end of all things."<sup>46</sup> Golts also reported that similar exercises were held in September 2001 and October 2002 in which strategic missiles were also launched.<sup>47</sup>



In February 2004 Russia conducted a major exercise reported to involve nuclear strikes against NATO. Colonel-General Baluyevskiy, while denying the exercise was against NATO, or even that it was an exercise, stated this “training” reflected “the main principle of the armed forces of Russia today which we have formulated as follows: strategic mobility based on nuclear deterrence.”<sup>48</sup>

Nuclear strike exercises against the U.S. and NATO have reportedly continued. For example, in July 2004, the Russian press reported that a military exercise included “possibly the simulated use of tactical nuclear weapons.”<sup>49</sup> Another press story about the “Allied Security 2004” command-and-staff exercise conducted in July 2004 indicated that the exercise had a plan that called for delivering virtual strikes with tactical nuclear weapons in order to repel a surprise offensive by superior forces: “In the view of specialists, this kind of development is typical for the use of nuclear weapons against invading troops.”<sup>50</sup>

Russia apparently continues to simulate nuclear strikes in quite limited wars. In July 2005 the Russian press reported that in the Russian exercise conducted at Totskoye-2, Orenburg Oblast, “The lights of flares hang in the sky for a long time. Grad (Katyusha) systems repel an air attack. Three ‘nuclear bursts’ are visible from the command post. Gray mushrooms hung above the ground.”<sup>51</sup>

President Putin and Defense Minister Ivanov have personally participated in strategic nuclear exercises.<sup>52</sup> Such participation will certainly continue in the future. In August 2005 President Putin not only participated in a strategic nuclear exercise but actually flew in a Russian Blackjack bomber which launched four of the new Russian KH-555 long-range land attack cruise missiles.<sup>53</sup> Western Presidents would simply never act in this manner. Ominously, in August 2005, Russia engaged in an exercise with China which even with the changes requested by Moscow, had a scenario that the Russian press reported “resembles not a rehearsal for an anti terrorist operation but a rehearsal for the seizure of costal territory.”<sup>54</sup>

The extraordinary press coverage of Russia’s strategic exercises combined with the open ocean bomber flights and strategic missile launches suggests that the Russian Government deliberately wants this information disseminated and the intention is to intimidate the West.

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## Russian Strategic Nuclear Forces

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It is clear that the Russian elite perceive that Russia's power in the world flows from strategic nuclear weapons. As Russian military analyst Viktor Litovkin wrote, "Strategic missiles remain the only chance to ***make the world respect Russia in the near future.***"<sup>55</sup> (Emphasis added).

Russia inherited massive but unsupportable strategic nuclear forces from the Soviet Union. The large number of individual types of ballistic missiles made it very difficult and extremely expensive to sustain the former Soviet strategic force. These missiles were designed for short life times (ten years) because Soviet strategic nuclear forces were being modernized at roughly ten year intervals.<sup>56</sup> The demise of the Soviet Union aborted the deployment of fifth generation ICBMs at an early stage.<sup>57</sup>

Russia initially tried to continue Soviet style modernization at a much reduced scale. Financial limitations forced the oldest systems to be rapidly eliminated. Because Russia feared the possession of nuclear weapons by other former Soviet republics, Russia worked to remove rapidly or to eliminate strategic capabilities (as well as tactical nuclear weapons) in Belarus, Kazakhstan and Ukraine. Simultaneously, Russia sought to retain the improved fourth generation and fifth generation ballistic missiles and its modern SLBMs as long as possible.<sup>58</sup>

Russia's expenditures for strategic nuclear forces as a percentage of Russia's military budget is amazingly high by Western standards. In 2000 the Chief of Armaments of the Russian Armed Forces, Colonel-General Anatoliy Sitnov, stated that in the next several years, "28 percent of all funds allocated for arms procurement [will be spent] specifically for a radical modernization of the Strategic Nuclear Forces."<sup>59</sup> A measure of Putin's commitment to strategic nuclear forces was revealed on October 29, 2004 when the Russian press reported that he was funding the Topol M and that "funds for the Topol-M went straight from the Government to MITT [the manufacturer of the SS-27], bypassing the Defense Ministry."<sup>60</sup>

Russia, despite its weak economic situation, has a program underway to develop the full spectrum of strategic nuclear forces. Some are already being deployed. These include:

- Deployment of SS-27 silo based ICBM<sup>61</sup>
- Deployment of mobile SS-27 in 2005<sup>62</sup>

- Launch of a new SSBN in 2005<sup>63</sup>
- Development and first test of Bulava SLBM in 2005<sup>64</sup>
- Deployment of new long-range cruise missiles in 2005<sup>65</sup>
- Development of the Sineva SLBM<sup>66</sup>
- Common missile based on Bulava<sup>67</sup>

Despite the priority placed on strategic nuclear forces, Russia can not sustain its forces at current levels. In its report to the U.S. Congress in September 1999 on *Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015*, the National Intelligence Council of the Central Intelligence Agency concluded that “Russia will maintain as many strategic missiles and associated nuclear warheads **as it believes it can afford**, but well short of START I or II limitations.”<sup>68</sup> (Emphasis added.) The size of the Russian force “will decrease dramatically—well below arms control limits—primarily because of budget constraints.”<sup>69</sup>

Under President Yeltsin Russia was limiting the allocation of resources to the military. However, in 2000, President Putin changed the priorities. Strategic missile life extension was facilitated by an increase in revenues resulting from dramatic increases in the price of oil. In 2003 Ivanov announced that the SS-18 would be preserved until 2016.<sup>70</sup> As one Russian commentator noted in October 2003, “The strategic forces for deterrence are once again receiving priority, although not more than three years ago the General Staff came out against raising the role, giving preference to the general forces instead.”<sup>71</sup>

Despite the increased funding for life extension, Russia is incapable of maintaining strategic forces in excess of the Moscow Treaty limit of 1,700-2,200 warheads for more than perhaps another decade. As Aleksey Arbatov put it, the Moscow Treaty “does not limit us in any way whatever. Our strategic forces will for financial reasons be reduced to a level lower than that envisaged by the treaty. The Americans, on the other hand, could stay at the present level—approximately 6,000 nuclear weapons, there is no ‘financial pressure’ on them.”<sup>72</sup>

Arms control has not been the primary impetus for the reductions. Limitations on funding and service will determine the size of Russia’s strategic forces. As Russian Strategic Missile force officials have repeatedly stated, “Only missile systems, weapons and other hardware that have served out their operation life are liquidated.”<sup>73</sup> Very few provisions of the START Treaty impact the Russian strategic force today. Russia wants to keep as many of its Soviet legacy systems for as long as it can and is modernizing them as much as it can afford. Despite the occasional somewhat exaggerated Russian

rhetoric vis-à-vis their strategic nuclear force modernization, the programs President Putin and Defense Minister Ivanov talk about are real,<sup>74</sup> and, as such, should not lull the West into complacency.

In addition to the announced Russian modernization programs, it has been reported that Russia is working on “a new liquid-propellant ICBM which will carry 10 nuclear warheads....”<sup>75</sup> Its throw weight is said to be four tons and that it “outclasses the famous TOPOL-M three times over.”<sup>76</sup> Colonel- General Solovtsov in a May 2005 press interview said: “Although we are not relieving the designers of the mission of development of a new liquid-fueled missile, this is roughly an 8-10-year prospect.”<sup>77</sup> A report of the National Air Intelligence Center in February 2003 predicted a new Russian ICBM.<sup>78</sup>

As noted above, President Putin has drawn attention to Russian development of a hypersonic boost glide vehicle to penetrate missile defenses.

Dr. Lowell Wood, a member of the Congressional Commission on Electromagnetic Pulse, has noted that, “Soviet strategic strike forces characteristically have featured weaponry well-suited to efficient EMP generation over exceptionally wide areas. ***That EMP strike component exists today in the Russian strategic order-of-battle, moreover likely at its maximum Cold War strength. I very confidently predict that it will be one of the last features of Soviet strategic nuclear weaponry to be retired from the Russian strategic force structure.***”<sup>79</sup> (Emphasis in the original.)

On June 21, 2005 General Baluyevskiy, Chief of the General Staff, reiterated that, “The strategic nuclear forces are the principal deterrent against military threats to Russia's national security....There has been a trend for area conflicts to expand and spread to the zones of Russia's vital interests....The level of existing and potential threats to Russia could grow, and this will be determined largely by the struggle by leading states and coalition for fuel and energy resources and markets.”<sup>80</sup>

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## The Russian Nuclear Weapons Program

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Nuclear weapons are Russia's highest priority. Not only do Russian nuclear weapons have alleged divine sanction, but according to then Russian Atomic Energy Minister Viktor Mikhaylov, they have “a sound ideological basis enshrined at the top stated level.”<sup>81</sup> These ideologically pure weapons provide, “both in the 20<sup>th</sup> and 21<sup>st</sup> century...an irreplaceable guarantee of a peaceful and prosperous future.”<sup>82</sup> Russian

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journalist Dmitriy Yevstafyev, wrote in March 2000 that, “nuclear weapons are the basis for Russia to retain its influence in the world and they are the guarantee against pressure on us from NATO.”<sup>83</sup>

These attitudes developed despite President Yeltsin’s intent to de-emphasize nuclear weapons. While Yeltsin controlled the money available for nuclear weapons, it is clear that his views were not shared by his senior staff, including Atomic Energy Minister Viktor Mikhaylov. Mikhaylov’s views on nuclear weapons are illustrated in an article he wrote on April 23, 1999 in which he stated that the “nuclear weapons complex must remain the highest state priority and must focus on the future.”<sup>84</sup> A self proclaimed “hawk,” Mikhaylov, soon after leaving office and returning to the Sarov nuclear weapons laboratory as Science Director, was even more candid concerning his view of nuclear weapons:

We should also carefully approach the problem of developing low and super-low yield nuclear weapons and precision weapons with nuclear warheads. Such weapons can be realistically utilized in the event of large-scale military conflict involving the use of conventional arms or mass-destruction weapons when there is a threat to our country’s existence or worsening of the living conditions of our people. At the same time, we must understand that if the U.S. has an ABM system, such weapons are no rivals for the main stabilizing role played by nuclear munitions in the megaton class.<sup>85</sup>

The Russian press reported that in the late 1990s Mikhaylov’s supporters in the Russian Atomic Energy Ministry were working to “create highly accurate ‘clean’ third-generation nuclear weapons, in which transuranium elements are used and which can be very compact by containing the equivalent of several dozen or hundreds of metric tons of TNT.”<sup>86</sup>

Irrespective of what Mikhaylov would have liked to have done under Yeltsin, he did not have the resources to fully achieve his objectives. While Mikhaylov recorded in 1997 that, “The process of updating nuclear weapons is not being suspended,” it is clear that a funding collapse occurred in 1998.<sup>87</sup> However, after the April 29, 1999 Russian National Security Council meeting, then Security Council Secretary Vladimir Putin said that the three Presidential decrees signed by Yeltsin, “concern the development of the whole nuclear weapons complex and the endorsement of the concept of the **development and use of strategic nuclear weapons.**”<sup>88</sup> (Emphasis added.) Ignor Korotchenko, writing in the Russian newspaper *Nezavisimaya Gazetta*, a journal aimed at an elite audience, reported that at the April 29 Security Council meeting at the Kremlin that Russia “...having encountered outright U.S. and NATO hegemony in a unipolar world...has again decided to bank chiefly on nuclear weapons.”<sup>89</sup>

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Under Putin, Russia's nuclear weapons complex has improved dramatically. In June 2000 Nikol Voloshin, a senior official of the Ministry of Atomic Energy, announced a 50% increase in spending for nuclear weapons. He noted that work was nearing completion on a warhead for the Topol M (SS-27), while "At the same time modernization is proceeding on the other warheads."<sup>90</sup> He revealed that, "The [nuclear] ammunition we have developed ranges in power from **tons** to megatons of TNT equivalence."<sup>91</sup> (Emphasis added.)

One of the biggest problems Russia faced under Yeltsin in maintaining its nuclear capability in a tight budget environment was the short shelf life of its nuclear weapons, which like Russian strategic missiles, were built on the assumption that there would be modernization every 10 years or so and by the year 2000 had exceeded their service life and had to be replaced.<sup>92</sup> In November 1997, Mikhaylov stated that the life of a nuclear weapon, "was between 10 and 20 years depending on class and designation."<sup>93</sup> Under Putin funding increases allowed intensified life extension efforts, reversing the early retirement of systems that had taken place under Yeltsin. Russian Colonel-General Igor Valynkin, at a press briefing at the test site at Novaya Zemlya, told the press that, "Nuclear munitions were inspected on Novaya Zemlya in the past year, which had a service life of 13-14 years...[T]he munitions will be modernized."<sup>94</sup> Retired Lieutenant Russian General Mikhail Vinogradov asserted in April 2000 that, "Basically the mechanical and electronic assemblies of the design and the chemical explosive will undergo modernization. All will be replaced with components made of modern and technically advanced materials. The unit itself containing fissile material will remain the same, since its further modernization simply makes no sense."<sup>95</sup>

While the Russian nuclear weapons' complex has been downsized under Putin, it is still fully functional and enormous by Western standards. In 2001 the Russian First Deputy Atomic Energy Minister announced that, "by 2003 the four plants for nuclear weapons assembly will be reduced to 2, and there will be only 1 plant for plutonium and uranium parts production instead of the current 2."<sup>96</sup> This is still far in excess of the nuclear infrastructure any Western nuclear power is maintaining. For example, the Russian Nuclear Energy Ministry's statement that Russia had the technical capability to dismantle 2,000 warheads a year translates into the technical ability to produce about the same number of warheads.<sup>97</sup>

Alexander Rumyantsev, Atomic Energy Minister, declared in a meeting with President Putin in July 2003 that, "Russia's nuclear weapons are battle-ready, 'meet the most modern standards' and are capable of surmounting various systems."<sup>98</sup> At this meeting former Atomic Energy Minister Viktor Mikhaylov called for Russia to have "state-of-the art weapons [that] meet the requirements of the geopolitical situation."<sup>99</sup>

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## **Russian Development of Precision Low Yield Nuclear Weapons and Earth Penetrators**

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Since the 1990s the Russian press has reported that the central element of the Russian research and development efforts on third generation nuclear weapons has been the development of precision low yield nuclear weapons, clean nuclear weapons, EMP, neutron weapons and earth penetrating nuclear weapons. In November 1997 then Atomic Energy Minister Mikhaylov stated that Russia was working on penetrating nuclear weapons: "So-called nuclear weapons, which penetrate the ground before exploding. I must say that our developments here are at the highest level. Right now we are standing firm. Despite all the financial and economic difficulties."<sup>100</sup> On April 29, 1999 Yeltsin reportedly issued a decree which resulted in Russian development of precision low yield nuclear weapons that could be used for strategic or tactical nuclear strikes. On May 6, 1999 Russian defense analyst Pavel Felgengauer wrote that Russia was developing "precision low-yield" nuclear weapons for strikes "anywhere in the world."<sup>101</sup> He reported that these weapons would have yields "from several tens of tons to 100 tons of TNT equivalent."<sup>102</sup> In addition he said, "What is more, existing strategic nuclear warheads are to be upgraded so that they can deliver strikes with a yield of hundreds tons of TNT, which is thousand of times weaker than their current megaton-range potential."<sup>103</sup>

In May 1999 retired Russian Major-General Vladimir Belous wrote about Russian development of pure fusion weapons in which "a chemical explosion or magnetic field compression is used to implode a thermonuclear mixture" and stated that work was underway at Sarov (Arzamas-16) on such weapons. He predicted, that the "most likely collateral results of these experiments can be a significant increase in the energy-mass characteristics and creation of a neutron mini-bomb."<sup>104</sup> He also described another type of advanced nuclear weapon in which, "A minidetector of highly enriched plutonium is used to help up the substances being fused to a temperature of tens of millions of degrees."<sup>105</sup> He said that Russia had a "203.2-mm artillery shell with a yield of 1 KT."<sup>106</sup>

In March 2002 Felgengauer again reported that Russia was developing "superlow-yield weapons," penetrators, and "'clean' nuclear weapons."<sup>107</sup> He also stated that a decision to resume "nuclear testing on Novaya Yemlya has already been made in principle."<sup>108</sup>

On August 17, 2003 former Atomic Energy Minister Viktor Mikhaylov confirmed that, "The philosophy of thermonuclear weapons has changed today, and on the agenda is the development of high-precision and deep-penetration nuclear bombs," and stating

that Russia was ahead of the United States in these weapons.<sup>109</sup> In a March 2004 interview he again stated that: “Thermonuclear weapons development philosophy has changed and work is being conducted on the development of precision-guided munitions with penetrating capability.”<sup>110</sup>

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## Russian Tactical Nuclear Weapons

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In 1991 and 1992 Soviet President Gorbachev and Russian President Yeltsin, respectively, pledged to reduce Russian tactical nuclear weapons in a number of specified ways. There has long been a concern in the West that Russia was not acting consistently with these commitments, the so-called Presidential Nuclear Initiatives (PNIs). On October 7, 2004 Assistant Secretary of State Stephen Rademaker voiced Washington’s concern that Russia “has not fully met its commitments to reduce tactical nuclear weapons in Europe.”<sup>111</sup> Russia officially claims to have reduced its tactical nuclear weapons stockpile “by more than five times” compared to 1991.<sup>112</sup> Given that the Soviet Union may have had more than 20,000 tactical nuclear weapons in 1991, this claim, if true, may still be consistent with the retention of an enormous stockpile of tactical nuclear weapons, particularly when compared to the rest of the world.<sup>113</sup> Russia has not revealed the size of its nuclear stockpile. Recent numbers from Russian sources range from 3,300 to 5,700 operational tactical nuclear weapons plus a large number (up to 10,000) in central storage.<sup>114</sup> The full range of Cold War nuclear weapons has been retained including nuclear artillery, tactical missile warheads, air delivered weapons, naval weapons, air defense weapons, with some sources reporting retention of the nuclear suitcases (ADMs).<sup>115</sup>

Since the late 1990s, the official Russian position has been that Russia had fulfilled its PNI commitments to reduce or eliminate tactical nuclear weapons, except for a small number of nuclear artillery shells that are awaiting dismantlement in central storage.<sup>116</sup> Yet on March 9, 2005 Russian Defense Ministry press releases contradicted this and recorded three violations of PNI commitments.

- “The main strike force of the Navy consists of nuclear-powered submarines, armed with ballistic and ***cruise missiles with nuclear warheads***. Those ships are constantly patrolling various regions of the oceans of the world ***and ready for the immediate use of their strategic weapons***.”<sup>117</sup> (Emphasis added) (Russia had pledged no routine deployment of nuclear SLCMs and the 1991 START Treaty contains a requirement for prior notifications.)



- “The *Missile Troops and Artillery* are a combat arm of the Ground Troops. They are the main means for fire and **nuclear strikes against an enemy**.”<sup>118</sup> (Emphasis added) (The Russian PNIs committed it to eliminate all nuclear ground force weapons—artillery and missile warheads.)

It is interesting to note that the Russian newspaper *Vremya Novotsety* quoted a source on the Russian General Staff as saying, “Those nuclear public initiatives mean nothing to the general staff. Political decisions and the will of God are all that matter.”<sup>119</sup>

During the 1990 there was increasing emphasis in Russia on tactical nuclear weapons, President Yeltsin, in his national security message to the Federal Assembly on June 13, 1996 stated that, “The Russian Federation consistently implements a nuclear deterrence policy. Maintaining a sufficient level of RF [Russian Federation] nuclear potential both globally (Strategic Nuclear Forces) as well as regionally and locally (operational tactical and tactical nuclear weapons) and a sufficient level of non-nuclear deterrence potential plays a key role in implementing that policy.”<sup>120</sup> In September 1996 then Atomic Energy Minister Mikhaylov called for the construction of 10,000 tactical nuclear weapons with yields between dozens to several hundred tons of TNT equivalent.<sup>121</sup>

Putin’s emerging influence, according to Aleksey Arbatov, resulted in more emphasis on tactical nuclear weapons: “apparently the emphasis is made primarily on tactical nuclear weapons, although a selective first strike with **strategic nuclear forces** also is possible.”<sup>122</sup> (Emphasis in the original.) In late April 1999 there were many press reports that under Putin’s influence Yelstin had signed a decree authorizing the development of advanced tactical nuclear weapons.<sup>123</sup> Several press reports, including an article written by retired Major-General Vladimir Belous, stated that a nuclear warhead would be put on the new Iskander tactical missile.<sup>124</sup> The development of low yield precisions weapons would certainly be applicable for tactical nuclear use. In a 1997 article Colonel Sergey Aleksandrovich Modestov, Lieutenant-General Aleksandr Sergeyeovich Skvortsov, and Major-General Nikolay Ivanovich Turko of the Academy of Military Sciences maintained that because of the threat from NATO, “We need to work on the modernization of these weapons, the reduction of their yield, and the reduction of the danger of radioactive contamination.”<sup>125</sup>

In the late 1990s reports began to circulate in the Russian press about forward deployment of nuclear weapons, including Kaliningrad.<sup>126</sup> While denied by the Russian Government, this action would have been consistent with the attitudes toward NATO prevalent in Russia. This is precisely what Russia would have done if it had sought to defend Kaliningrad against an attack by NATO.

Russia has rejected any arms control measures relating to tactical nuclear weapons, except for the removal of U.S. weapons from Europe. In the words of Defense Minister Ivanov in May 2003, “As concerns tactical nuclear weapons themselves, Russia has

more than once voiced its willingness to discuss this matter on the condition and understanding that all the states possessing this kind of weaponry, will keep it on their own territory and not beyond their borders."<sup>127</sup>

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## Russian Nuclear Weapons Testing

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In 2005 Russia reportedly maintains 4,000 personnel at Novaya Zemlya to test Russian nuclear weapons.<sup>128</sup> As one recent press report put it, Russia is conducting, "so-called hydrodynamic experiments, which does not violate the relevant treaty...to establish whether a nuclear weapon whose service life has expired is serviceable or not."<sup>129</sup> In January 1999 Lev Ryabev, then head of the Nuclear Energy Ministry's Nuclear Munitions Development and Testing Department, said that so-called "subcritical" tests produce very small nuclear yield (i.e., 0.1 gram).<sup>130</sup> However, Russia may be doing a great deal more.

The Russian press reported that President Yeltsin's April 29, 1999 decree on nuclear weapons approved "hydronuclear field experiments."<sup>131</sup> Hydronuclear tests that are designed to produce measurable nuclear yields are inconsistent with a zero yield CTBT or zero yield moratorium Russia claims to be observing. It is very interesting that then Russian First Deputy Minister for Nuclear Energy Viktor Mikhaylov, on April 29, 1999, wrote about the importance of hydronuclear testing to maintaining the nuclear arsenal. He stated: "No state will be able to create nuclear weapons for the first time based solely on hydronuclear experiments....But developed traditional nuclear powers can use hydronuclear experiments to perform tasks of improving reliability of their nuclear arsenal and effectively steward its operation. All countries indirectly gain here inasmuch as the risk of nuclear accidents is lowered....Determining the limits of 'authorized activity' is no simple process and only professionals can direct it correctly."<sup>132</sup> In July 2001 Mikhaylov again attacked the Bush Administration's opposition to the CTBT maintaining that, "The fact is that the developed, traditional nuclear powers, using hydronuclear experiments, can perform the task of improving reliability of the nuclear arsenal and effectively track its operation while reducing the risk of possible accident."<sup>133</sup>

These statements clearly suggest that Russia was conducting hydronuclear explosions and that Mikhaylov wanted to keep this activity under the complete control of the Nuclear Energy Ministry. Why else should Mikhaylov be talking about the importance of hydronuclear testing when it was prohibited by the Comprehensive Test Ban Treaty and the testing moratorium Russia was claiming to observe? Such disregard for political

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commitments and legal obligations would be consistent with past Soviet disregard of policy commitments and legal obligations as documented in the Department of State's August 2005 report on adherence to arms control agreements which recorded a continuing pattern of Russian treaty violations.<sup>134</sup> Such tests would be useful for the development of new nuclear weapons.

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## **Russian Nuclear Doctrine—Lowering the Nuclear Use Threshold**

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Russian nuclear weapons' doctrine is important. Doctrine determines the allocation of resources, war planning and war training. These in turn, will determine what options Russia has available, in the event of future crises. These views will also impact the likely recommendations the senior leadership will get from Russian military leaders.

Russia's excessive faith in a nuclear escalation strategy may also be affecting its technological transfer activities. Russia is in the process of selling arms to future possible adversaries, particularly China. The assumed Russian willingness to use nuclear weapons in nonnuclear warfare rationalizes such activities and makes them appear less dangerous to Russian security interests.

The adoption by Russia of a low nuclear use threshold did not suddenly happen in 1999. The Russian press reported on March 29, 1996 that the concept of a lower nuclear threshold had already been developed by the "Institute for Defense Studies...the unofficial mouthpiece of the Defense Ministry" and that, U.S. Assistant Secretary of Defense Ashton Carter was given a preview of the doctrine: "The concept's provisions on the future of strategic nuclear weapons and possible U.S. withdrawal from the ABM Treaty was tried out on U.S. partners. But the main novelty for the West is the strategy of curbing Western superiority in conventional arms by means of Russian tactical nuclear weapons."<sup>135</sup>

Then Atomic Energy Minister Viktor Mikhaylov wrote in February 1998 that Yeltsin had signed one directive in April 1996 entitled "Russia's Position on Matters of Nuclear Security" and an additional directive entitled "The National Security Blueprint of the Russia Federation" in December 1997. He then quoted from the latter: "Russia reserves the right to use all forces and means at its disposal, including nuclear weapons, if, as a result of unleashing armed aggression, a threat arises to the very existence of the Russian Federation as an independent and sovereign state."<sup>136</sup>

The draft Military Doctrine released in 1999 was approved by Acting President Putin in 2000. Both contain the following language:

The Russian Federation reserves the right to use nuclear weapons in response to the use of nuclear or other weapons of mass destruction against it and (or) its allies, as well as in response to large-scale aggression utilizing conventional weapons in situations critical to the national security of the Russian Federation.<sup>137</sup>

Writing in May 1999 Major-General V.I. Levshin, Colonel A.V. Nedelin and Colonel M. Ye Sosnovskiy described the concept of “de-escalation of military operations” which was linked to the new military doctrine:

Fulfilling the de-escalation concept is understood to mean actually using nuclear weapons both for showing resolve as well as for the immediate delivery of nuclear strikes against the enemy....It seems to us that the cessation of military operations will be the most acceptable thing for the enemy in this case.<sup>138</sup>

The closest parallel to the current Russian nuclear doctrine are the Eisenhower Administration’s nuclear emphasis military doctrine of the 1950s and the NATO doctrine of “flexible response” of the 1960s. The 1999 Russian doctrine has elements of both but plays down the dangers involved in nuclear escalation and simply assumes that “the cessation of military operations will be the most acceptable thing for the enemy in this case.”<sup>139</sup> The Eisenhower Administration doctrine and the NATO doctrine, of course, evolved during the height of the Cold War, not during the rather benign circumstances of Europe in the late 1990s.

In November 1999 Nikolai Mikhailov, then First Deputy Defense Minister of the Russian Federation, was remarkably candid about the new nuclear escalation strategy: “This strategy boils down to the threat of using nuclear weapons against any aggressor at a scale ensuring unacceptable damage to such aggressor. The amount of damage should be such as not to provoke the aggressor into escalating the use of nuclear weapons without a justified reason. In other words, the point at issue is a limited use of strategic nuclear forces adequate to the threat.”<sup>140</sup> He also revealed another major change in Russian strategy. Russia had moved from a position in which its declaratory policy was that it had no enemies to one in which it *de facto* assumed that all nuclear powers were its enemy: “For the nuclear deterrence strategy as a means of ensuring Russia’s national security to be effective each of the other nuclear states should be vulnerable to Russia’s nuclear forces under any conflict scenario.”<sup>141</sup>

Just after former Russian Atomic Energy Minister Viktor Mikhaylov left the Russian Government in August 1999, he wrote about the development of a new generation of

tactical nuclear weapons “a new generation of ultra low-yield nuclear weapons” that would implement the escalation strategy.<sup>142</sup> He believed that the Russian Government had to make it completely clear that these weapons would be used in limited conflicts.

Then Colonel-General Vladimir Nikolayevich Yakovlev, Commander of the RVSN (Strategic Missile Troops), stated in December 1999 that: “The need for Russia's orientation toward expanded nuclear deterrence, which means including not only nuclear and wide-scale conventional wars, but also regional and even local military conflicts in the sphere of interests of the RVSN and Strategic Nuclear Forces as a whole, is because of a number of objective reasons.”<sup>143</sup> Despite the fact that this formulation clearly went well beyond the official doctrine, he was soon promoted to the rank of four star general.

Both President Putin and Defense Minister Ivanov have denied that they lowered the nuclear use threshold.<sup>144</sup> Yet the Russian press had reported that, “Sergey Ivanov...‘accidentally’ made a ‘slip’ in speaking about the possibility of the use of tactical nuclear charges in Chechnya.”<sup>145</sup> Russian military leaders have been far more candid about the deliberate lowered the nuclear use threshold. With the publication of the draft of the new Russian military doctrine in 1999, General Yakovlov stated that, “Russia, for objective reasons, is forced to lower the threshold for using nuclear weapons, extend the nuclear deterrence to small-scale conflicts and openly warn potential opponents about this.”<sup>146</sup>

Today the 1999 nuclear doctrine remains in place. In October 2003, Colonel-General Baluyevskiy reiterated Russia's nuclear doctrine in an interview published by the Russian Defense Ministry, quoting the 1999 nuclear doctrine verbatim.<sup>147</sup>

It is understandable why Russia would reserve the right to use nuclear weapons in response to any type of WMD use since the consequences could be essentially the same as those resulting from nuclear weapons' use. However is not clear what would constitute “large scale aggression involving the use of conventional weapons in situations critical for the national security of the Russian Federation.” Aleksey Arbatov, then Deputy Chairman of the Duma Defense Committee and Duma Deputy Petr Romashkin suggested that it would be something like NATO military action in Kosovo.<sup>148</sup> According to Arbatov, in order to use its tactical nuclear weapons Russia would have to have a “rough quantitative equality, but also an acceptable correlation in both counterforce potential...and in countervalue potential....”<sup>149</sup> Making the world safe for tactical nuclear escalation was to be accomplished through arms control and a SS-27 buildup.<sup>150</sup>

It is noteworthy that Mr. Arbatov was talking about nuclear escalation not as a counter to an attack on Russia, but as the requirements of nuclear escalation in support of another state: “For Moscow's part, ‘enhancing deterrence’ presumes the first-use of nuclear weapons ‘in response to large-scale aggression involving the use of

conventional weapons in situations critical to the national security interests of the Russian Federation.”<sup>151</sup>

On September 8, 2004 Colonel-General Baluyevskiy, now Chief of the General Staff, left the door open to the use of nuclear weapons in preemptive strikes against terrorists. While noting that preemption “does not mean we will deliver nuclear strikes,” the choice “of weapons will be determined by the specific situation in one region or another.”<sup>152</sup>

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## Why Has Russia Lowered the Nuclear Threshold?

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The conventional explanation for Russia’s adoption of a low nuclear weapons use threshold was addressed in the Clinton Administration’s last report to the Congress on “Proliferation: Threat and Response” dated January 2001. It stated:

The overall reduction in Russian military capabilities, especially the conventional forces, has caused Russian military planners to emphasize Moscow’s threat to use nuclear weapons to deter a large-scale conventional attack, a policy that Moscow stated in its military doctrine published in October 1999 and reiterated in January 2000 and again in April 2000. Russia is prepared to conduct limited nuclear strikes to warn off an enemy or alter the course of a battle.<sup>153</sup>

Clearly Russian military weakness played an important role in the development of the new doctrine. Defense Minister Ivanov has stated that, “The effective defense of a huge country as Russia, whose population is not large, can be ensured only by high-class mobile forces. As to the nuclear forces, we will modernize them in a balanced way.”<sup>154</sup> Military weakness was the explanation given by then Colonel-General Yakovlev in December 1999. Yakovlev stated: “The general purpose forces have been reduced, their global rearmament is impossible in the foreseeable future, and Russia is compelled to reduce the threshold for the use of nuclear weapons and extended nuclear deterrence to conflicts of lesser scales and to openly warn about that.”<sup>155</sup> However, Colonel-General Vladimir Muravyev, Deputy CINC of the Strategic Missile Forces, in December 1999, indicated another reason for the change in strategy: “They [nuclear weapons] are capable of nullifying the combat qualities of all modern conventional systems.”<sup>156</sup> (Emphasis added.) This is consistent with classic Soviet thinking on nuclear weapons.

Russian paranoia about the United States and NATO has clearly played a role in the adoption of a new nuclear doctrine. This was clearly illustrated in a January 12, 2005 editorial in *Krasnaya Zvezda*, the official newspaper of the Russian Defense Ministry. It declared that, “It is obvious that despite various assurances, **Russia’s traditional geopolitical rivals are continuing to take advantage of the historical moment—the temporary weakness of a great state**...Stronger states are striving to reinforce their positions around the entire perimeter of Russian borders. Taking advantage of the pretext of the need to fight the new phenomenon of world politics, ‘international terrorism,’ a number of leading world powers have obtained military bases in Central Asia”<sup>157</sup> (Emphasis added). Furthermore, Russia faces a savage world in which the “military factor is beginning to play an ever greater role in politics and when states are waging an increasingly harsh and uncompromising—although often also covert—struggle for resources and territories.”<sup>158</sup> Russia survived “thanks largely to its military potential, above all nuclear.”<sup>159</sup> It continued: “The total dismantling of RF national sovereignty will be impossible as long as our nation has strategic nuclear forces. **With political will we will have something with which to respond at the critical moment in history.**”<sup>160</sup> (Emphasis added.)

On March 18, 2005, retired Major-General Vladimir Belous, in an article that reflects the general Russian view of nuclear weapons, wrote that: “if Yugoslavia had possessed at least 2-3 nuclear munitions of any amount of [explosive] power, the countries of NATO would never had decided to even consider the possibility of using military force against it.”<sup>161</sup> Thus, there is a blatant inconsistency in Russian threat perception concerning the assessed likelihood that the United States and NATO will attack Russia (with all the obvious risks of nuclear escalation that this would entail) and the conclusion that a few nuclear weapons strikes against the NATO and/or the U.S. will terminate the conflict in a manner acceptable to Russia. On the one hand, we hear that NATO is poised to attack Russia in the not too distant future. Yet once NATO attacks, as Major-General V.I. Levshin, Colonel A.V. Nedelin and Colonel M. Ye Sosnovskiy wrote in May 2005 that after limited nuclear weapons use, “It seems to us that the cessation of military operations will be the most acceptable thing for the enemy in this case.”<sup>162</sup>

It is clear that military weakness does not completely explain the adoption of the lower nuclear use threshold in 1999 and the publicity given to it. As Lieutenant-General (Reserve) Vladimir Medvedev observed in late December 1998, the 1993 Russian military doctrine allowed for first use of nuclear weapons in the event of an attack on Russia, its armed forces or allies.<sup>163</sup> The 1993 strategy document stated:

The Russian Federation ensures its military security by means **of all the means at its disposal** with priority accorded to political, diplomatic, and other peaceful means. In this context, the Russian Federation deems it necessary to possess Armed Forces and other troops and to employ them for the following purposes:

- *protection of the sovereignty, territorial integrity, and other vitally important interests* of the Russian Federation in the event of aggression launched against it or its allies. (Emphasis added.)<sup>164</sup>

As far back as 1996 Yeltsin had signed a document that made even more explicit the right to use nuclear weapons in self-defense: “Russia reserves the right to use all forces and means at its disposal, including nuclear weapons, if, as a result of unleashing armed aggression, a threat arises to the very existence of the Russian Federation as an independent and sovereign state.”<sup>165</sup> Why then did Russia feel that it was necessary to expand overtly the role of nuclear weapons to include the ambiguous concept of using nuclear weapons, “in response to large-scale aggression utilizing conventional weapons in situations critical to the national security of the Russian Federation.”?<sup>166</sup> The concept of just what is “critical to the national security of the Russian Federation” is highly subjective and could mean almost anything.

Pavel Felgengauer, writing just after Yeltsin’s April 29, 1999 nuclear weapons decisions, attributes the change to “Mikhaylov and the entire Ministry of Atomic Energy” attempts to, “change the notion of nuclear weapons as weapons of mass destruction.”<sup>167</sup> Why did they want to do this? According to Felgengauer, the threat of general nuclear war with megaton range weapons is not credible to “deter NATO expansion, the attacks on Iraq, the war in the Balkans” which Russia strongly protested to no avail.<sup>168</sup> Since Russia’s general purpose forces are weak and unable “to intervene effectively in conflicts **outside their national territory**...Moscow’s protests can be ignored.”<sup>169</sup> (Emphasis added.) With precision low yield weapons, “Nuclear pressure will once again become an effective instrument of policy if the threat of nuke strikes can become more realistic....**It is assumed that a ‘precision strike’ of this kind will not result in immediate nuclear war.**”<sup>170</sup> (Emphasis added.) Hence, the new doctrine, unlike NATO’s Flexible Response in the 1960s, is not aimed only at deterring a massive invasion of Russia, but rather it is also aimed at giving Russia the ability to intervene in minor conflicts like “Serbia or Iraq” with the threat of precision nuclear strikes.<sup>171</sup>

The low Russian nuclear weapons use threshold is linked to the old Soviet view of the world and Russia’s role in it as well as the current Russian dreams of grandeur about its historical role as a superpower. Russia with a GNP of only about \$ 600 billion in 2004 (compared to about \$ 950 billion for Spain) has only one claim to superpower status— nuclear weapons.

There was no reason for Russia to conclude in the late 1990s, or today for that matter, that Russia faced a serious imminent threat to its survival or territorial integrity. Reasonable Russians recognize this. No reasonable Russian could conclude today that the U.S. is preparing for war with Russia when the U.S.: 1) is reducing its operationally deployed strategic nuclear forces by about two-thirds, including the retirement of its most capable ICBM; 2) is cutting its nuclear arsenal by about 50%; 3) has reduced its Army, Navy and Air Force by almost 50% since 1992; 4) is spending



only about 3.5 percent of its GNP on defense (while fighting a war on terror); 5) is cutting back on long planned modernization programs; and 6) is reducing its forces in Germany to 20,000-25,000 troops.<sup>172</sup> Moreover, 50% of NATO is spending less than 2% of its GNP on defense.<sup>173</sup> This is not exactly how one prepares for a war with a major nuclear power. The fact that many Russians continue to hold this belief illustrates the fact, which will be developed below, that Russia's threat assessment is mired in the Cold War.

The hidden agenda behind the new Russian nuclear doctrine, as Felgengauer suggested, is not only the desire to deter attack on Russia—which previous nuclear doctrine certainly did—but in addition to this, it seeks to return Russia to superpower status by the threat of precision low yield nuclear strikes. The new weapons are not only aimed at merely deterring attack on Russia (they can be used for this purpose by reprogramming them to generate megaton yields<sup>174</sup>), but also to allow Russia to threaten to intervene in the next Kosovo or Iraq or the next crisis *de jour* once the Russian economy revives sufficiently to support a more activist role. As Aleksandr Golts writes:

In my view, the concept for expanded deterrence did not come about as a consequence of the results of debates by reformers and those who consider the Soviet mobilization model as the ideal. The reformers were sure in their views in the debate as to whether or not Russia really needed to be prepared for military confrontation with the USA, China, and other world powers. If the reformers were gambling on limit this, then they were immediately accused by the other side of wanting to convert Russia into a second-class power. This was a surprisingly serious accusation—the entire external policy of Boris Yeltsin was built on maintaining the view that Russia first and foremost would remain a great military power. If the reformers concurred with the fact that Russia now and after reform would be able to win large-scale (that is to say global) war, then they would have to recognize that the Soviet mass army, able to be formed from tens of millions of reservists under arms, was the ideal means to do this. And therefore, there could be no thought of reforming the Army, and subsequently the only conclusion was to endeavor to retain the ideal system.

In this situation the supporters of cardinal reform could not risk directly stating that due to the complicated economic, political and demographic reasons there would never be a way in the future that Russia could be able to stand as a great power. They were forced to seek other ways on how to reconcile the military reform plans and aspiring to the role of a great power. The natural expansion of this "opposition" gave the Stavka nuclear deterrence. In my view, it was no accident that the reformers

found themselves becoming greater supporters for using nuclear weapons if possible in the early states of conflict.<sup>175</sup>

There is clearly a great deal of continuity in Soviet and Russian thinking, particularly about the military utility of nuclear weapons. General Muravyev, in the same article quoted above, went on to state, ***“this concept of deterrence has been forming over the course of the past several decades of the RF*** – supporting the balance of nuclear arms with the US according to the sum of quantitative (strength, in sum total of warheads, etc.) and qualitative (combat capability in various types of strikes) indicators.”<sup>176</sup> (Emphasis added). When the new nuclear weapons use doctrine was announced in 1999, the Russian Federation had existed for seven years, not several decades. There were, however, several decades of Soviet nuclear doctrinal development by 1999.

Writing in January 2005, Aleksey Obukhov, a centrist Russian, noted the dangers posed by the new Russian nuclear doctrine because of its potential impact on nuclear proliferation and the risk it posed for escalation to a nuclear war. He noted that in, “...the book of one Duma politician one can read a recommendation addressed to Russia's supreme leaders, which is worded as follows: ‘...Simply snap at the United States with all 10,000 nuclear teeth in the Cheshire cat's smile. It's frightening, but the idea is very good.’ It appears that this specifically is what shouldn't be abused, otherwise the political toughness being sought risks being turned into bluff and, in the worst case, into an adventure.”<sup>177</sup> Similarly, Aleksandr Golts rejects the view of the Russian generals that, “...nuclear weapons are a life ring for Russia, which gives it the capability to remain in the upper echelons even with its economy is not working. Others, on the other hand, consider these missiles pull the wool over our leaders' eyes and blind them to the actual conditions inside the country.”<sup>178</sup>

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## Conclusion

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In Russia, today, we see a number of ominous trends. There is a retreat from democracy coupled with a longing for the superpower status of the Soviet Union which cannot be supported at any time in the foreseeable future. Russia's approach to maximizing its political power has been the adoption of a dangerous nuclear escalation strategy that is not aimed at the deterrence of real enemies but rather at the United States and NATO. Russian strategic forces will numerically decline over the next decade and beyond, but they will still be several times greater than those we feared could destroy the world during the Cuban missile crisis and will be far more technically

sophisticated and militarily effective. Russia has a broad based nuclear modernization effort underway, involving both new delivery systems and new nuclear weapons. Knowledgeable Russians report that the focus of this program is the introduction of precision low yield nuclear weapons including a number of advanced designs such as penetrators, enhanced radiation, EMP and “clean” weapons designs.

With elections in both the United States and Russia in 2008, the future of the U.S.-Russian relationship is uncertain at best, particularly if Russia continues to turn away from democracy. There are risks associated with the Russian nuclear doctrine, even if U.S.-Russian relations were to improve. As Alexander Golts wrote in December 2004, “To this day Russian generals have decisively refused to train the Armed Forces for any other conflict than wars with the USA and NATO....But what else could be expected when Russian generals, being thoroughly pigheaded, want to fight the Americans.”<sup>179</sup>

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