Nuclear Dependence: The Russian Federation's Future Reliance On Nuclear Weapons For National Security

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NUCLEAR DEPENDENCE:
THE RUSSIAN FEDERATION’S FUTURE RELIANCE ON NUCLEAR WEAPONS
FOR NATIONAL SECURITY

A Thesis

Presented to

the Faculty of the Josef Korbel School of International Studies

University of Denver

In Partial Fulfillment
of the Requirements for the Degree
Master’s of International Security

by

Adam J. Lukszo

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Advisor: Jonathan Adelman
ABSTRACT

The Russian Federation’s reliance on nuclear weapons for national security will steadily increase over time. Based on current evidence and historical data, the Russian state will be unable to recruit, arm, train, equip, reform, and fund their conventional forces well enough to match up with capabilities of what it views to be its potential adversaries. Russia’s historic experience with invasion and vulnerable geographic position reinforce the need for a powerful weapon with which to maintain the current regime and ensure its territorial integrity. Declining demographics and persistent social illnesses will reduce the number of eligible male candidates able to serve in the military. Also, Russia’s leaders perceive a threat environment in which there are persistent threats to the existence of the Russian Federation. Finally, nuclear weapons provide a relatively cheap and effective weapon that possesses massive destructive capability, is easily deployable, and demands respect from any potential adversary.
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<table>
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ABM</td>
<td>Anti-Ballistic Missile</td>
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<tr>
<td>BMD</td>
<td>Ballistic Missile Shield</td>
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<td>CAR</td>
<td>Central Asian Republics</td>
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<td>FSU</td>
<td>Former Soviet Union</td>
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<td>ICBM</td>
<td>Intercontinental Ballistic Missile</td>
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<tr>
<td>NATO</td>
<td>North Atlantic Treaty Organization</td>
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<td>PLA</td>
<td>People's Liberation Army</td>
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<td>RF</td>
<td>Russian Federation</td>
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<td>RFE</td>
<td>Russian Far East</td>
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<tr>
<td>RMD</td>
<td>Russian Military Doctrine</td>
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<tr>
<td>SAP</td>
<td>State Armaments Program</td>
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<tr>
<td>SLBM</td>
<td>Submarine-Launched Ballistic Missile</td>
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<td>SSBN</td>
<td>Ballistic Missile Submarine</td>
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<td>TNW</td>
<td>Tactical Nuclear Weapon</td>
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CHAPTER ONE: INTRODUCTION

The Russian Army is never as strong as it describes itself but never as weak as it seems from the outside.
-Old Russian adage, cited in Dmitri Trenin and Aleksei Malashenko, Russia’s Restless Frontier

The main foundation of national security in Russia remains, and will remain for a long time to come, nuclear deterrence forces.
-President Vladimir Putin, October 2, 2003

In 2005, then-President Putin described the collapse of the Soviet Union as “the greatest geopolitical catastrophe” of the 20th century. At least from the Russian perspective, he was, and still is, correct. The collapse of the Soviet Union led to substantial political, economic, and social upheavals. Russia lost control over huge swaths of territory, some of which it had controlled for centuries. Ethnic Russians living in the newly independent states suddenly found themselves in the minority. The failures by the new political leadership under Boris Yeltsin only exacerbated the consequences of the collapse making the 1990s a chaotic period in Russian history.

The Russian military suffered heavily during the post-Soviet era of the 1990s. It saw massive budget cuts and downsizing. Yeltsin perceived the military as a political threat to his position and did his best to reduce and mitigate the strengths of the military. The economic crisis that followed the collapse necessitated deep budget cuts. Cuts in military budgets, manpower, and political influence, all of which had been substantial

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during the Soviet era, severely diminished Russia’s conventional military forces. The loss of funding impacted current military construction projects, salaries, benefits, and living conditions for Russia soldiers. These cuts, compounded by the large losses in territory with the breakup of the Soviet Union and United States’ demonstrated technological edge during the first Gulf War, also greatly hurt morale amongst the Russian Armed Forces.

Today, the Russian Federation has regained its balance. Conditions in Russia have substantially improved since 2000 with the Presidency of Vladimir Putin and the continuation of his policies under the current President, Dimitri Medvedev. However, the Russian military still lags behind in modernization and capability. Some experts estimate that currently Russia is as much as 20-30 years behind the West in many areas of technical progress. The conventional military forces of the Russian Federation have yet to recover and overcome their demonstrated inefficiencies and weaknesses. Until that time, Russia’s leaders feel that their country is vulnerable to outside attack, even though there does not appear to be any imminent outside threat. This has forced a reliance on nuclear weapons – both strategic and tactical – by Russia’s leaders as a “stop gap” measure until reform and modernization of conventional forces allow them to take on the role of deterring attacks and defending the Russian Federation. However, Russia’s reliance on nuclear weapons may turn out to be more than a temporary solution to its national security needs.

The Russian Federation will be forced to make nuclear weapons the primary means of ensuring its national security. At this time, the Russian government faces numerous foreign and domestic obstacles that will make it unable to depend on its

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conventional forces to ensure Russia’s national security. Compounded, these obstacles will increase Russian reliance of its nuclear forces because nuclear weapons will provide the only assured guaranteed means of successfully deterring or defeating an external threat. First, the sheer size of territory that the Russian military is responsible for defending makes nuclear weapons necessary to ensure its territorial integrity. Second, the perception by Russia’s leaders, elites, and general population that Russia is surrounded by threats will demand strong nuclear forces. Third, unfavorable social issues such as falling birthrates and an increase in alcoholism, drug use, and disease amongst the Russian population will severely limit the number of eligible candidates for military service. Fourth, Russia’s conventional forces – air, sea and land – are currently unable to ensure the defense of the Russian Federation. Meanwhile, nuclear weapons hold a number of clear advantages over conventional forces in terms of cost, maintenance, and effectiveness in military conflict. However, crossing the nuclear threshold is still considered to be a last and desperate measure. Fifth, based on current evidence, Russia’s military industry will not be able to provide conventional military equipment equivalent to what is currently being produced or purchased by other states. Finally, nuclear weapons represent Russia’s best chance of countering the deployment of any ballistic missile system. This paper will explore the issues that will turn Russia’s reliance on nuclear weapons from a “stop gap” measure into a permanent policy.
CHAPTER TWO: GEOGRAPHY

Understanding Russia’s geography is critical to understanding why the Russia Federation is, and will continue to be, reliant on nuclear weapons for defense. Even if Russian conventional forces were substantially better trained, equipped, and manned, they would still have difficulty in protecting Russian territory against a foreign aggressor in a major military conflict. Russia is too big and spread out for military forces to be strong enough everywhere, and concentrating in one area leaves other regions exposed and vulnerable. While Russian military districts have been reorganized to mitigate this weakness, it still leaves thousands of kilometers of border to defend and monitor. Nuclear weapons offer Russia’s leader the best means by which to both deter an attack and win a future conflict with an aggressor intent on attacking the Russian state on any front of the entire Federation.

Russia’s geography has long been both a blessing and a curse. A curse because it fails to provide any significant defensive features and a blessing because the sheer size of Russia makes it more than any foreign invader can hope to secure. Historically, the leaders of Russia have consistently pushed outward in the hopes of securing territory and geographic features that can act as defensive obstacles such as the Pripet Marshes and the Caucasus and Carpathian Mountains. These features either allow for locations where Russian military forces can be concentrated with natural defenses or allow its forces to be diverted to routes more likely to be used by invaders. A byproduct of this expansion was
the acquisition of more territory that a potential adversary would have to conquer, and
secure, before reaching the political and economic centers of the Russian empire. The
size of the empire also provided Russian forces with plenty of strategic depth in which to
retreat in while any invader had to cross more and more territory which he had to secure
for ever increasing supply lines.

The Carpathian and the Caucasus mountain ranges are two of the defensive
features that Russian leaders have long strived to control, either directly or through
friendly regimes. Without control of these two mountain ranges, the interior of Russia is
vulnerable to attack. Steppes and plains lie to the north of the Caucasus and to the north
and east of the Carpathians in what is known as the European Plain. In the east, between
the Ural Mountains and the Caspian Sea lie more steppes (See Figure 1). This terrain
allowed for easy access to foreign invaders to attack the interior of the Russian empire.
Both Napoleon and Nazi Germany invaded Russia by means of the Northern Plains,
while the Mongols came across the steppes that stretch between the Urals and the
Caspian Sea.³

This constant vulnerability and history of invasion guides Russian geopolitics to
this day. After the collapse of the Soviet Union, Russia lost control of the territory south
of the Caucasus Mountains to the three newly independent states of Georgia, Armenia,
and Azerbaijan. The loss of this buffer explains why Russia has been unwilling to
compromise and let go of Chechnya or any other republic along the Caucasus range: the
loss of them would deny Russia the natural defensive feature offered by these mountains
and leave a vulnerable gap in Russia’s defensive line along its southern flank. Letting one

³“The Geopolitics of Russia: Permanent Struggle,” Stratfor: Global Intelligence, October 15, 2008,
or more of the republics go could trigger a chain reaction of independence movements that could drive Russia out of the isthmus between the Black and the Caspian Seas cutting off access to these bodies of water entirely. The loss of access to the Black Sea in particular would be devastating to Russian prestige and national security. Also, there are substantial fossil fuel deposits and pipelines in this region that Russia is unwilling to give up.

The loss of control over Central Asia led to the emergence of five new republics. Losing control over these territories denied the Russia Federation access to large resource
deposits and a substantial portion of its strategic depth in the region. Also, while not ideal, Central Asia did provide some defensive geographic features such as the Himalayan Mountains in the south and east, and the Kara Kum Desert in Turkmenistan in the south. However, the loss of direct control over this region has not hurt Russia’s national security as much as initially believed. Most of the governments in the region are still friendly towards Moscow and highly dependent on good relations with their former master. Other than China, which Russia borders elsewhere anyway, Russia does not currently face an adversary that could move through this region to attack from the south.

Today the Russian Federation encompasses over 6.5 million square miles, stretches over 10 time zones, possesses a 43,500 mile long border, and another 23,620 miles of coast line. However, the Russian population hovers at just around 140 million. Together this amounts to an overwhelming amount of territory to defend. Up until the end of World War II, Russia’s ability to retreat, pursue a scorched earth policy, harass extended supply lines, and overwhelm any invader with its territory had served it well. However, the post-World War II era saw the advent of new weapons technologies such as nuclear weapons, missiles, and long-range bombers which have minimized Russia’s geographic advantages. Since then, weapons have only become more sophisticated, powerful, and accurate.

These advancements in weapons technology have offset or reduced many of the advantages of Russia’s geographic size. An adversary does not have to travel on foot or vehicle across the entire front to threaten or attack Moscow, St. Petersburg, or the other

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industrial and political centers of Russia. An adversary can now fly over defensive emplacements or launch a missile to strike at a target without ever having to place troops on the ground. Also, today, wars are more about achieving political objectives than territorial gains. The combination of political objectives and war without ground forces means that some of the advantages of Russia’s geography are diminished. However, Russia’s size still protects it from any attempts to seriously occupy it and allows it to disperse its military and industrial capabilities to make them less vulnerable.

Nevertheless, the large amount of territory necessary to defend will overwhelm the current Russian military forces even if an attack only occurred along one front. With the majority of its forces concentrated against a single foe, it would leave other regions of the Russian state vulnerable to attack.

In some circumstances, even getting its forces to the enemy would be difficult. “Russia’s problem is that it is a vast country with relatively poor transportation.”

Transporting Russian forces to a remote zone such as a conflict in the Russian Far East (RFE) or deep in Central Asia would take precious time and strain the logistical capabilities of the Russian military. The RFE is especially vulnerable as it would be easy for an adversary to cut the main infrastructure routes to the east, delaying a relief response by ground forces.

If Russia were simultaneously attacked along its entire periphery, in spite of the size of its forces, it would be unable to easily protect itself. It would have difficulty mobilizing forces and deploying them to multiple fronts, so it would have to maintain an extremely large standing army that could be pre-deployed.  

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7 Ibid.
The economic and financial burden of such a large military force would likely collapse the Russian state all over again.\textsuperscript{8} Depending on conventional forces limits the number of fronts the Russians can fight on and, as will be described later, may be unable to effectively counter an external threat.

Despite this scenario, the probability of an attack on the Russian Federation on multiple fronts is unlikely to say the least but is a vulnerability that any state must consider, especially one such as Russia with so much exposed border. While possible, even Russia’s leaders do not appear to consider the “attack on all fronts” scenario all that likely. However, they consider the chance of an attack on at least one of their fronts very seriously as demonstrated by their military exercises. The exercises Zapad-99, Mobility 2004, and Stability 2008 all simulated an attack on the Russian Federation by outside aggressors. Zapad and Stability both escalated into nuclear exchanges with NATO\textsuperscript{9} and the West respectively.\textsuperscript{10}

The Russian military has worked to improve its air mobility capabilities in an attempt to overcome its poor infrastructure east of the Urals. In June 2004, the Russian Armed Forces staged a military exercise codenamed “Mobility 2004” which consisted of transporting Russian military personnel and equipment from the western military district

\textsuperscript{8} Ibid.


to the RFE. While the exercise was successful, even with this air capability, these planes would be vulnerable to interdiction by enemy aircraft or mobile surface-to-air weapons requiring their own escorts for protection. Therefore, Russia Armed Forces still face major obstacles in deploying their forces to remote areas whereas nuclear weapons do not face such problems.

Even with the advances in weapons technology, Russia’s geographic size still gives it the ability to spread out and decentralize its military forces and military industry, and provide it plenty of places to hide facilities and stockpile weapons. The U.S. invasion of Afghanistan in 2001 and Iraq in 2003, demonstrated that instituting major political or military change still requires the commitment of ground troops even with the advancements in warfare. By comparison, the U.S. failed to achieve regime change in Iraq in 1991 or in Libya (as of May 2011) despite vigorous air campaigns in both conflicts.

Any commitment of ground forces by an adversary today against Russia would have the same consequences as in the past: large swaths of territory to secure, vulnerable supply lines, and plenty of territory within which to retreat. Ultimately, the pros and cons of Russia’s territorial size will depend on the objectives of the adversary: is the purpose to defeat Russian military forces or force a change in government within Russia?

Regardless of the attacker’s objective, nuclear weapons provide an ideal answer to how Russia’s leaders can hope to defend such a “virtually indefensible” state with so much vulnerable coastline, porous borders, and limited number of military forces. First, 

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12 Friedman, The Next 100 Years, 104.
Russia’s nuclear forces are still very capable and can be delivered by each of the nuclear triad. Therefore, nuclear weapons will deter an adversary from believing that they can attack or capture Russian territory without consequence, even if they believe themselves capable of defeating Russia’s conventional forces. Second, Russia's nuclear weapons can be delivered anywhere in the world in less than an hour by means of ICBMs or SLBMs. This means that whatever the status of Russia’s conventional forces, Russia’s leaders can still retaliate against an adversary without having to invade them. Finally, the devastating power of nuclear weapons far exceeds the destructive capability of conventional weapons making any attack on Russian territory extremely costly.

The result is that the Russian leadership can successfully defend the full size of the Russian Federation and maintain its territorial integrity through the use – or threat – of nuclear weapons. Any adversary will have to take Russia’s nuclear forces into consideration if it ever plans to take action against the Russia state, even if it possess limited goals and is not intent of threatening the survival of the Russian state. At this time, the only way that Russia’s leaders will be able to defend their territory from a strong potential adversary, such as the United States, NATO, or China, is by maintaining nuclear weapons as a deterrent. However, as will be explained below, currently the Russia Federation does not face a serious outside threat, much less a threat of invasion by an external force, which would require the Russian Federation to employ nuclear weapons.
CHAPTER THREE: RUSSIA’S THREAT PERCEPTION

Russians have always had a strong sense of being under constant threat. One reason for this is due to the geographic vulnerability of Russia state referenced above. The other reason is because Russia has a long history of invasion. The Mongols, the French, the Swedes, the Poles, and the Germans have all attacked or invaded Russia, many of them on more than one occasion. Even during the Russian Civil War, the Whites received support from foreign nations in their battle against the Reds. After World War II, this feeling of vulnerability did not diminish as Soviet leaders saw the United States establish a ring of military bases around the world and fostered relationships with anti-communist regimes around the Soviet Union in what became part of the U.S.’s containment policy. Finally, the collapse of the Soviet Union brought about internal instability, cuts to military budgets, losses of territory, bases, and production facilities, and many former satellite states rushed to be embraced by the West.

The NATO Threat

NATO, a military alliance specifically organized against the Soviet Union, was established to Russia’s west and has endured for over 60 years. Since the Soviet Union’s collapse this military bloc has expanded east and brought NATO troops and infrastructure closer to the Russian border and major urban centers. As part of NATO, new member states receive access to advanced military equipment and additional training to increase...
their effectiveness and capabilities. This support is provided chiefly by the more powerful member states – Germany, France, the United Kingdom and the United States – which substantially improves the military capabilities of states along Russia’s western border, many of whom are less than friendly towards Russia. The membership of Estonia, Latvia, and Lithuania are of particular concern as these were the first three former soviet states to join NATO and all three share a direct border with the Russian Federation.

While expansion has slowed, the fact that at the 2008 NATO summit in Bucharest offers of extending membership to Ukraine and Georgia – two additional former soviet states that border Russia – was openly discussed has done little to alleviate the Russian fear that NATO poses a threat. Although the United States has since backed off under the Obama Administration, the Russian leadership no doubt viewed this action as the U.S.’s and NATO’s continued desire to expand the alliance closer to Russia.

Also, the post-WWII U.S. relationships and alliances established with South Korea and Japan in Russia’s Far East continue to endure to this day. Close U.S. relations with (at the time) the Shah of Iran, the monarchy of Saudi Arabia, and the governments of Israel, Pakistan and Turkey checked Soviet advances in the Middle East. Finally, even China emerged as a threat to the Soviet Union and almost led to full-fledged conflict. Although war was avoided, the Sino-Soviet split and China’s eventual opening up to the United States did not improve Russian leaders’ sense of security.

Eastern Europe

The collapse of the Soviet Union and its subsequence breakup into numerous new states only made matters worse for Russia’s political and military leaders as the borders
of Russia were pushed back in the west and the south. The loss of Belarus, Estonia, Latvia, Lithuania, Moldova and Ukraine dealt a heavy territorial blow as they lost a significant portion of their strategic depth on the Western front and a number of these states joined NATO and oriented themselves toward the West as much as possible. The loss of Ukraine was especially devastating due to the importance it plays as a transportation hub for the Russian Federation.

Ukraine is the transit point for 80 percent of all natural gas shipped from Russia to Europe and is the connection point for most infrastructure – whether pipeline, road, power or rail – running between Russia and the West.13

Ukraine’s independence also cost Russia direct access to the Russian naval base at Sevastopol in the Crimea. However, the recent election of pro-Russian President Viktor Yanukovitch in 2010 and a vote by the Ukraine parliament to extend Russia’s lease of the naval base by 25 years has secured Russian access to Sevastopol at least for the near future.14 Ukraine also possesses a large ethnic Russian population and significant industrial capability. Finally, from a cultural perspective, Ukraine is the birthplace of Russian culture and civilization, Kievan Rus’, and its independence only emphasizes Russian weakness in the post-Cold War environment.

The Caucasus States

In the South along the Caucasus Mountains, the emergence of the newly independent states of Georgia, Armenia, and Azerbaijan pushed the Russian border back

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to the very edge of the mountain range. In the past, this region acted as a territorial buffer against Turkish power.\textsuperscript{15} Today it acts as a “Christian buffer between Islamic influences from the south and Russia’s Muslim regions.”\textsuperscript{16} The Caucasus Mountains represent one of the few natural geographic defensive features the Russian state held onto following the break of the USSR. This has made consolidating the states along the southern range of the Caucasus’s under Russia influence – either through carrots or coercion – a top priority.

The rugged terrain makes defense relatively easy. However, should the Russians lose their position the Caucasus altogether and be pushed north into the lowlands, Russia’s position would become difficult.\textsuperscript{17} The lowlands lead to the Russian steppe which facilitates a ground invasion of the Russia heartland.

This is the reason the Russians are so unwilling to compromise on Chechnya. The southern part of Chechnya is deep in the Northern Caucasus. If that were lost, the entire Russian position [in the region] would unravel.\textsuperscript{18}

The loss of the Caucuses states cut Russia off from the energy resources along the Azerbaijani coast of the Caspian Sea. This has been to Russia’s detriment as a number of new energy pipelines have been constructed that traverse the Caucasus states and intentionally avoid crossing into Russia territory. The result is a reduction in Russian influence and control over energy resources being exported out of the Caspian Sea basin and Central Asia.

\textsuperscript{15} Friedman, \textit{The Next 100 Years}, 107.

\textsuperscript{16} “Russia’s Expanding Influence, Part 1: The Necessities.”

\textsuperscript{17} Friedman, \textit{The Next 100 Years}, 107.

\textsuperscript{18} Ibid.
Central Asia

The Central Asia Republics (CAR), while independent, do not pose a major national security concern for Russia’s leaders at this time. The five landlocked republics are tightly bound to Russian and “rely heavily on transportation, communications, supply-chains, and other networks that either traverse Russia or fall under Moscow’s control.”\(^{19}\) However, regardless of these ties, Russia’s leaders must take action to ensure these states stay in its orbit lest they seek closer ties with other nations or decide to pursue more independent policies. To that end, “Russian officials have also waged a low-keyed but effective campaign to limit American, Chinese, and other foreign economic competition in Central Asian countries.”\(^{20}\) Of the five states, Kazakhstan is the most important due to its size, economic power, and the fact that it is the only one of the five that borders the Russian Federation. Kazakhstan is also very important because “[w]henever controls Kazakhstan would be a hundred miles from the Volga, a river highway for Russian agriculture” or a route for military invasion into the heartland of western Russia.\(^{21}\) Much like the Mississippi River in the United States, control over the Volga provides access to the interior of the Russian state. If Kazakhstan were to become hostile to Russia or allied with a potential adversary, such as China, it would force the Russian military to take action to ensure control of the Volga River or risk it falling into enemy hands.


\(^{20}\) Ibid.

\(^{21}\) Friedman, *The Next 100 Years*, 109.
At this time Kazakhstan is likely to remain in Russia’s orbit but China has been increasing ties with many of the CAR especially Kazakhstan. The two share a 1,500 km border and China has increased political and economic ties with all of the CAR. 22 “Trade between China and the five Central Asian countries totaled $25.9 billion in 2009, up from $527 million in 1992, according to Commerce Ministry statistics.” 23 Chinese consumer goods such as “clothing, electronics and household appliances…have lately flooded Central Asia.” 24 China has also invested in the region to access its energy resources, “[t]wo new pipelines…supply [China] with gas from Turkmenistan and oil from Kazakhstan.” 25

China

Finally, Russia’s relationship with China poses a major dilemma for its leaders. “Since the late 1980s, China and Russia have expanded their bilateral economic and security cooperation to unprecedented levels.” 26 While diplomatic relations have substantially improved since the Sino-Soviet split, Russia has yet to conclude whether China is a future threat or ally. Both states have followed similar authoritarian government paths and oppose U.S. unipolarity and unilateral action, however, China’s


24 Ibid.

25 Ibid.

26 Weitz, “Strategic Posture Review: Russia.”
growing economic power, military expansion, and growing demand for raw materials could threaten Russia’s Far East or even lead to a conflict.

Russian territory east of the Urals contains a population of only seven million ethnic Russians which continues to decrease as more Russia’s migrate west.\textsuperscript{27} Meanwhile,

roughly six hundred thousand illegal Chinese migrants a year are pouring northward into Russia’s depopulated Far East – a number almost identical to Russia’ annual population decline….China’s northeastern provinces alone have a total population of over one hundred million.…

Russia’s virgin Far East also contains massive deposits of zinc, nickel, tin, diamonds, and gold, as well as vast fisheries and timber forests – all of which are attractive to the world’s largest importer of raw materials.\textsuperscript{28}

Russia’s leaders find themselves in a difficult position as China has developed the region in a way that Russia cannot.\textsuperscript{29} Chinese investment in the region allows for extraction of natural resources and the development of infrastructure while also providing jobs for local residents and supplying cheap Chinese consumer goods. However, as more ethnic Russians leave and legal and illegal Chinese immigrants flood the region, Russia’s leaders fear a silent Chinese takeover.

Chinese citizens…visit Chinese-operated health clinics, and Chinese men even marry Siberian women, whose husbands are either perpetually drunk or already dead as a consequence.\textsuperscript{30}

In another generation, the Russian Far East may be “Russian” in name only.

\textsuperscript{27} Parag Khanna, \textit{The Second World } (New York: Random House, 2008), 72.

\textsuperscript{28} Ibid.

\textsuperscript{29} Ibid., 73.

\textsuperscript{30} Ibid.
China’s military expansion is another concern for Russia’s leaders as the pace and scale of Chinese modernization and professionalization of its armed forces has grown.

Since the two governments signed an agreement on military-technical cooperation in December 1992, China has purchased more defense items from the Russian Federation than from all other countries combined. However, now that the Chinese defense industry has become capable of producing more sophisticated armaments, Moscow confronts the uncomfortable choice of either seeing its Chinese market decrease dramatically or agreeing to sell even more advanced weapons to Beijing, a decision that could destabilize military force balances in East Asia...

to Russia’s disfavor.

The Chinese are currently investing heavily in a blue-water navy that is meant to include several aircraft carriers. Recent developments like the unveiling of the J-20, China’s newest domestically produced “stealth fighter,” the new “carrier-killing” anti-ship ballistic missile, and the 2007 successful test of an anti-satellite missile all indicate that China is taking its military modernization seriously. At least for now, China’s military interests seem to be oriented toward Taiwan, the United States, and the South East Asian region. However, the Chinese military exercise of 2009, codenamed Kuayue (Stride), dealt with the PLA’s ability to rapidly move forces from across China. This included moving troops from the China’s far west military region, Lanzhou, to its northeast military region, Shenyang, which borders Russia’s Far East. While it does not

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31 Weitz, “Strategic Posture Review: Russia.”

32 Ibid.

33 Dennis J. Blasko, “PLA Exercises March Towards Trans-Regional Joint Training,” China Brief 9, no. 22 (November 4, 2009), http://www.jamestown.org/single/?no_cache=1&tx_ttnews[swords]=8fd5893941d69d0be3f378576261ae3e
appear that China has any intention to increase tensions with its Russian neighbor any
time soon, Russia’s leaders view the future with growing concern.

In the newest Russian Military Doctrine, territorial claims against the Russian
Federation are explicitly listed as potential external threats. Between 1858 and 1860, the
Russian Empire annexed previously held Chinese territories along the Amur River that
are equal in size to that of France and Germany combined. The Russian Federation’s
concern is that with the shift in economic and military power between the two countries
in the RFE and the changing demographic situation in the region may provide the
Chinese with additional justification with which to press their claims to territory that once
belonged to them.

Threats Everywhere

The Russian Federation seriously views a potential threat from NATO on its
western border, the potential for invasion or attack along its southern flank in the
Caucasus or Central Asia, and a threat to its Far East territories from China. If Russia’s
political and military leaders believe that an attack could come from any one (or
combination) of these areas then they must also conclude that they currently lack the
conventional military assets to effectively defend against such an attack. The only
Russian force currently capable of deterring or defeating a major attack against the
Russian Federation is the nuclear weapons in its arsenal. A report produced in 2004 by

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the Ministry Defense, the *Immediate Tasks of Development of the Armed Forces of the Russian Federation*,

implicitly suggests that Russia cannot face a militarily advanced state [i.e. the United States or China] or a coalition of states [i.e. NATO] without engaging its nuclear capability”
due to the current weakness of conventional forces.\[35\] This conclusion has been demonstrated by the Russian military exercises, Zapad-99 and Stability 2008, which both ended in a Russian “victory” only after it escalated into a nuclear exchange. The Russian nuclear triad makes ICBMs employable on all potential fronts and allows them to be used against the attacking forces and to target the state(s) that initiated the attack against the Russian Federation. Except for the strategic bombers, these weapons could be launched against an attack force and hit their target in less than an hour. No other weapon in the current Russian arsenal allows for Russia’s military forces to respond against an attacking force or state with such speed and devastation.

Faulty Perception

Despite all these perceived vulnerabilities to the Russian Federation, it is difficult to understand why the Russians believe that any state would be willing to attack the Russian Federation and risk a nuclear response. The fact is that Russia today and in the near-future faces a rather mild threat environment when it comes to external threats to the existence of the Russian Federation. Threats to Russia’s territorial integrity or existence are more likely to come from internal forces such as terrorist groups or insurgencies like those found in Chechnya and the rest of the Caucasus. These are threats for which nuclear

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weapons are impracticable, infeasible, and ultimately ineffective. Nuclear weapons represent the ultimate broadsword at a time when what Russia’s national security establishment needs is a scalpel with which to selectively target terrorist cells, insurgent groups, secessionists, and anti-government movements hiding amidst the domestic population.

Russia’s current possession of nuclear weapons alone deters the chance of any state – nuclear or non-nuclear – attempting to engage in a conflict with the Russian Federation. Although a Great Powers conflict is always possible and Russia’s military must to be prepared for its eventuality as any nation does, its likelihood in the current global environment is low. Even the 2010 Russia Military Doctrine admits a “decline in the likelihood of large-scale war involving the use of conventional means of attack and nuclear weapons being unleashed against the Russian Federation.”

The United States is exhausted from war and still focused on its operations in Iraq and Afghanistan. The United States is unlikely to seek out any new military conflicts, particularly with a nuclear power such as Russia whose cooperation it needs to pursue other foreign policy objectives such as stabilizing Afghanistan, arms control, resolving the Iranian and North Korean nuclear issues, and engaging in international counternarcotics and counterterrorism efforts.

Russia’s leaders have a valid concern about the expansion of military alliances such as NATO, that it is not a member of, closer to its border that could place potentially hostile assets closer to its territory and constrain Russian foreign and military policy objectives. This concern may be due to the expanding role of NATO based on the

Alliance’s decision to become involved in Afghanistan. However, this must be viewed in some context. NATO became involved in Afghanistan because it invoked Article 5 of the NATO Charter for the first time in its history after a major provocation against one of its founding members on the morning of September 11, 2001 which resulted in almost three-thousand civilian casualties by terrorist extremists. The Russian Federation would have to be prepared to commit a similar provocation, such as an attack on a current NATO member state, to warrant a NATO attack. Russia’s leaders would also have to assume that NATO would be willing to risk a nuclear confrontation if it decided to engage in military action against the Russian Federation, and there is no indication that any NATO member has the desire to raise the stakes to that of a nuclear war.

Russia’s leaders should also look to recent developments regarding the NATO alliance. NATO’s operations in Afghanistan have exposed the difficulties the alliance faces in its ability to mobilize and supply soldiers and military equipment outside the European theater for sustained operations and public opinion in many NATO states has turned decidedly against the Afghanistan conflict. As with the United States, a sense of war fatigue has set in that will likely prevent NATO from seeking out a military confrontation that would require the deployment of substantial assets including ground forces in the near future. The fact that certain NATO members resisted additional expansion during the 2008 NATO Bucharest summit should be a sign to Russia’s leaders that even the European states feel that there should be limits on NATO expansion when it comes to Russian interests. Finally, Russian ties with certain European states have improved as witnessed by the negotiations to purchase as many as four $700 million French *Mistral*-class amphibious assault ships, an advanced piece of military
technology;\textsuperscript{37} the completion of Nord Stream pipeline project that delivers 47 percent of 
natural gas directly to Germany; and the recent thaw in relations between Russia and 
Poland following the change in Polish government in 2007 and the April 2010 plane 
crash that killed a number of high ranking Polish government officials including the 
Polish President.\textsuperscript{38}

Meanwhile, Russo-Chinese relations are the best they have been in years with 
China representing one of Russia’s major trading partners.\textsuperscript{39} Although Russia’s leaders 
may view a potential threat to Russia’s Far East from Chinese encroachment over the 
long-term, so long as China does not make an overt claim or attempt to annex the RFE 
Russia’s leaders are unlikely to increase tensions in the region. In the meantime, they will 
benefit from Chinese investment and development in the region and profit from the 
revenues derived from resource exports.

China’s military expansion and modernization is also oriented more toward South 
East Asia and at potentially pushing out, or at least minimizing, the U.S. presence in the 
South Pacific. China’s planned expansion of its navy, its increasingly aggressive behavior 
toward its neighbors and willingness to throw its economic and military weight around, 
and its continued preoccupation with reasserting control over Taiwan indicate that 
China’s military ambitions and interests will be more directed toward its south-eastern 
neighbors and the United States rather than against Russia.

\textsuperscript{37} “Russia to Define Mistral Purchase Scheme - Navy,” \textit{RIA Novosti}, July 28, 2010, 

\textsuperscript{38} “Russia’s Expanding Influence, Part 4: The Major Players,” \textit{Stratfor: Global Intelligence}, March 12, 

\textsuperscript{39} “The World Factbook 2011 (Russia).”
Finally, while China may pose a threat to Russia’s Far East, it does not threaten Russia’s existence. The reason that it would be difficult for Russia to reinforce the RFE in the event of a conflict – long distance, difficult Siberian terrain, and lack of adequate transportation infrastructure – is the same reason that a ground attack by PLA forces aimed at western Russia would fail: the vast wilderness of Siberia is a defense all its own.\(^4^0\) Also, both states are nuclear powers which in-and-of-itself is a major deterrent factor, but in this respect Russia has a decided advantage over the Chinese numerically in terms of actual nuclear weapons and fifty years worth of Cold War experience where nuclear war was a real and potential threat. China has approximately 240 nuclear weapons in its inventory, compared to Russia’s 11,000.\(^4^1\) Of these it is believed that no more than

20 [are] operational intercontinental ballistic missiles -- each carrying a single warhead… The U.S. intelligence community anticipates that, at best, China will be able to increase this number to 100 warheads by 2015.\(^4^2\)

Compare this to Russia’s

667 strategic delivery platforms capable of carrying approximately 3,000 nuclear warheads. Most of these are land-based intercontinental ballistic missiles (ICBMs) under the command of the Strategic Missile Forces (SMF). The Russian Navy also has long-range ballistic missiles armed with nuclear warheads based on its 14 strategic missile submarines, while the Russian Air Force has 79 strategic bombers armed with as many as 884 long-range cruise missiles as well as gravity bombs.\(^4^3\)

\(^{4^0}\) Friedman, *The Next 100 Years*, 103.


\(^{4^3}\) Weitz, “Strategic Posture Review: Russia.”
Ballistic Missile Defense

Another variable that factors into Russia’s threat perception and reliance on nuclear weapons will be the United State’s development and deployment of an anti-ballistic missile (ABM) defense system. The U.S. decision to pursue this technology has raised major fears in the Russian military that these platforms are specifically targeted against Russian nuclear capabilities despite U.S. claims to the contrary. While the capacity of this technology is improving, at this time it is nowhere near as capable as some might fear. An ABM system must be close to 100 percent effective to make it a viable defensive weapon which is extremely difficult to achieve. However, Russia’s leaders have to contend with the possibility that increased investment and testing will eventually yield a relatively reliable ABM system able to target tactical and strategic nuclear missiles during any one of the three launch phases (boost, mid-course, terminal).

If the United States is able to successfully perfect this technology then it would have the potential to compromise Russia’s nuclear deterrence capability. Also, it would eliminate the Russian Federation’s last surefire means of defending against an attack on its territory. If the United States can defend itself from incoming ICBMs (and this technology were to be shared with NATO countries) and it already maintains a conventional advantage over Russian forces, then Russia’s actual and perceived vulnerability to attack increases substantially.

The simplest and most effective means of countering an ABM system is to overwhelm it. First, Russian nuclear weapons have carried decoys and penetration aids for decades, long before the United States began to invest heavily in ABM systems. This ensures that warheads on their terminal approach will have a greater chance of confusing...
ABM systems and surviving to hit their targets. However, U.S. ABM systems will eventually target missile during their initial boost phase before the warheads separate from the missile. Therefore, the Russian Federation may have to compensate also with more nuclear missiles. Firing off more missiles than can possibly be intercepted during the boost phase and having each missile carry multiple warheads ensures that even if a large percentage of missiles are knocked out by the ABM system, enough warheads will still reach their targets to devastate the enemy. Therefore, any potential attack on the Russian Federation would continue to remain too costly.

The U.S. plans for the deployment of the ABM system under the Phase Adaptive Approach currently include targeting nuclear missiles during their mid-course and terminal phase. An ABM system for targeting missiles during their initial boost phase was in development but has recently been cancelled. However, it should be assumed that research will continue into such a system and that it will eventually become part of the U.S.’s ABM shield. The result is that if the Russian Federation wishes to maintain an effective nuclear deterrent that can penetrate or survive an ABM system, then they will have to maintain or increase the number of launch vehicles and warheads per missile. This will minimize the effectiveness of any ABM by requiring an ever increasing number of interceptors and a high interception rate.

However, such an attempt to counter an ABM system will eventually reach a limit due to the constraints outline in the New START treaty signed by the United States and the Russia Federation in 2010. The new treaty limits both sides to no more than 1,550

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deployed strategic warheads and 700 deployed strategic delivery systems (air, sea, and land based).\textsuperscript{45} Instead of being concerned with a ceiling on warheads and vehicles, the Russian Federation may become more focused on the floor number of vehicles and warheads that it cannot cross below without imperiling its nuclear deterrent capability in respect to a missile defense system. If the United States is unable to reach an agreement with the Russian Federation regarding its missile defense program, then Russia may have no choice but to either cease reductions or even withdrawal from current treaties to increase their nuclear forces in an attempt to maintain enough weapons to overwhelm any missile defense system and ensure Russian deterrent capability. The fewer number of deployable strategic warheads and vehicles allowed under the current treaty in conjunction with the current weakness of Russia’s conventional forces will place Russia at a severe disadvantage. When considering this alongside U.S. missile defense systems that may neutralize or minimize Russian nuclear deterrent capacity it is no wonder that the Russian feel vulnerable.

U.S. efforts to develop and deploy a missile defense system provide an additional reason why the Russian Federation will become increasingly dependent on nuclear weapons for its national security. As the U.S. system becomes more effective and is increasingly deployed, Russia’s leaders will have to determine whether they currently maintain enough strategic vehicles and warheads that can penetrate a missile defense to reach their targets thereby ensuring a Russian nuclear deterrent capability. Depending on how effective they perceive the U.S. missile defense to be, they may conclude that they must increase the number of vehicles and/or warheads per missile to maintain a deterrent

capacity. Even if Russian conventional forces were to improve substantially in the future they could not protect Russia from a nuclear attack. A nuclear attack can only be deterred with a nuclear response of equal or greater destruction. Therefore, the Russian leadership would feel that it has no choice other than to increase the deployment of nuclear vehicles and warheads.

Perception versus Reality

The conclusions that can be drawn in this section are that the leaders of the Russian Federation perceive an international environment that emphasizes external military threats to the Federation’s existence. Based on Russia’s geographic vulnerabilities and history of invasion, Russia’s threat perception is not entirely misplaced. However, from a Western perspective, it appears to be greatly exaggerated when it comes to the possible threats posed by NATO, China, or the United States. These three realize that the Russian Federation’s nuclear forces are still powerful and capable weapons, and even an ill-equipped and under-trained conventional military of one million men can inflict a significant amount of damage. NATO, China, nor the United States has any intention of becoming engaged in a conventional or nuclear armed conflict with the Russian Federation, however Russian analysis of the threat environment appear to specifically point toward such a likelihood. However, it is important to understand that the “threat does not have to be real; perception of a threat can be equally powerful (emphasis added).”

The fact remains that external threats dominate Russia’s current threat perception, whether outsiders consider them to be right or wrong, realistic or not. So long as Russia’s leaders believe that they are geographically vulnerable, susceptible to invasion by external forces, and do not consider their conventional military forces capable of deterring or repelling an attack on the Russian Federation, then it makes sense for them to adopt a policy that promotes nuclear weapons which increases their reliance on them. Nuclear weapons provide a credible deterrent against attack, compensate for Russia’s vulnerable geographic position and currently weak conventional forces, allow for devastating retaliation, can be used in a timely manner, and can be employed anywhere along Russia’s periphery (or in the world for that matter). Russia’s conventional military forces cannot fulfill all these functions without a massive investment in modernization, training, and expansion of force that still could not guarantee to provide all the benefits of nuclear weapons and are beyond Russia’s current capability to fund and man without ruinous sacrifices in other areas.
CHAPTER FOUR: RUSSIAN MILITARY DOCTRINE

The 2000 and 2010 releases of Russia’s military doctrine provide analysts with a view of the major issues, priorities, and policies of the Russian Federation. In particular, they allow the United States and other states to understand current Russian policies and anticipate future actions. One of the most beneficial points of order identified by these documents is the conditions under which the Russian Federation would employ nuclear weapons. The second is the articulation of the specific threats that the Russian state views toward itself and its allies. Finally, a close analysis of Russia’s military doctrine indicates that the Russian Federation is already leaning toward favoring nuclear weapons.

The 2010 Russian Military Doctrine (RMD), like the 2000 version, identifies and outlines four types of potential conflicts:

- armed conflict (basically, a small-scale clash between two states or within one state similar to the war in Chechnya);
- local war (war with limited goals that affects only the interests of the immediate participants — a good example is the 2008 Russian-Georgian war);
- regional war (war that involves significant forces, including naval and airspace, which affects a large region and perhaps even coalitions of states); and
- large-scale war (war with radical, far-reaching goals that involves all or most great powers; fundamentally, a new world war).

Point sixteen of the RMD 2010 version explicitly states that nuclear weapons could potentially be employed in the latter two scenarios\(^48\) and that a “conventional regional war could escalate to the nuclear level.”\(^49\) In addition, the Russian Federation reserves the right to utilize nuclear weapons in response to the utilization of nuclear and other types of weapons of mass destruction against it and/or its allies, and also in the event of aggression against the Russian Federation involving the use of conventional weapons when the very existence of the state is under threat [emphasis added].\(^50\)

This language tightens the conditions under which nuclear weapons may be used. The 2000 version of the RMD allowed for the use of nuclear weapons “in situations critical for [the] national security of Russia…” a phrase open to interpretation.\(^51\) However, the 2010 RMD still represents an expansion of the role of nuclear weapons which was limited only to global war by the 1993 RMD.\(^52\) Finally, the fact that the 2010 version includes an allowance for the employment of nuclear weapons in response to a conventional attack means that unofficially the Russian Federation maintains a first-use policy, albeit under a strict condition.\(^53\) However, even the phrase “when the existence of the state is under threat” can be open to interpretation and depend on whoever happens to be the President of Russia at the time and how they choose to interpret this phrase.

Although these are the conditions under which nuclear weapons may be employed, according to the RMD, the primarily purpose of nuclear weapons is to prevent


\(^{50}\) “Russian Military Doctrine of the Russian Federation,” 10.


\(^{52}\) Ibid.

\(^{53}\) Ibid.
“the outbreak of nuclear military conflicts and military conflicts involving the use of conventional means of attack [a large-scale war or regional war].” However, policymakers should take note of the fact that since 1993 the Russian Federation has implicitly adopted a first-use policy and altered the conditions under which they would utilize nuclear weapons. By the time the next military doctrine document is issued, the conditions under which nuclear weapons could be utilized could once again be expanded with corresponding language that is easily open to interpretation for the explicit purpose of lowering the threshold for the utilization of nuclear weapons. This may become especially pertinent should the planned modernization of conventional forces fail to come about or advance far enough; if the political environment along the periphery of the Russian Federation becomes more volatile; or if the threat perception of the Russian Federation increases substantially.

Many of the main external military dangers listed explicitly identify NATO and vaguely the United States and China as the main potential adversaries. The 2010 Russian Military Doctrine lists the following as the primary external military dangers facing the Russian Federation:

a) the desire to endow the force potential of the North Atlantic Treaty Organization (NATO) with global functions carried out in violation of the norms of international law and to move the military infrastructure of NATO member countries closer to the borders of the Russian Federation, including by expanding the bloc;

b) the attempts to destabilize the situation in individual states and regions and to undermine strategic stability;

c) the deployment (buildup) of troop contingents of foreign states (groups of states) on the territories of states contiguous with the Russian Federation and its allies and also in adjacent waters;

d) the creation and deployment of strategic missile defence systems undermining global stability and violating the established correlation of forces in the nuclear-missile sphere, and also the militarization of outer space and the deployment of strategic nonnuclear precision weapon systems;

e) territorial claims against the Russian Federation and its allies and interference in their internal affairs;

f) the proliferation of weapons of mass destruction, missiles, and missile technologies, and the increase in the number of states possessing nuclear weapons;

g) the violation of international accords by individual states, and also noncompliance with previously concluded international treaties in the field of arms limitation and reduction;

h) the use of military force on the territories of states contiguous with the Russian Federation in violation of the UN Charter and other norms of international law;

i) the presence (emergence) of seats of armed conflict and the escalation of such conflicts on the territories of states contiguous with the Russian Federation and its allies;

j) the spread of international terrorism;

k) the emergence of seats of interethnic (interfaith) tension, the activity of international armed radical groupings in areas adjacent to the state border of the Russian Federation and the borders of its allies, the presence of territorial contradictions and the growth of separatism and violent (religious) extremism in individual parts of the world.55

NATO is listed as the first of eleven “main external dangers” yet it refers only to NATO expansion and its willingness to operate outside the European theater instead of couching it as a direct threat to the national security of the Russian Federation. This may have been meant to prevent an escalation of tensions between Russia and NATO;

55 Ibid., 4-5.
however, the significance of NATO’s listing as the first “main danger” should not be ignored. The 2000 Russian National Security Concept cited NATO as a threat to the Russian Federation as well, specifically addressing its eastward expansion and its undertaking of operations “outside its zone of responsibility and without UN Security Council sanction.”\(^{56}\) Also, included was reference to the “possible emergence of foreign military bases and major military presences in immediate proximity of Russian borders.”\(^{57}\) This is likely a subtle reference to the establishment of NATO infrastructure in new member states, primarily in Eastern Europe and U.S. military bases in Afghanistan and the Central Asian Republics in support of the U.S. operations there.

In addition, of the eleven external threats in the RMD 2010, NATO is the only one that is explicitly identified, all of the other bullets refer to generalized threats (i.e. terrorism, weapons proliferation, etc.) even when it is obvious which state(s) may be the target of the bullet point. Bullet D, for example, specifically refers to the threat posed by the development of strategic missile defense system which is currently only being seriously pursed by the United States of America with its European allies. Point E refers to territorial claims against the Russian Federation which most likely is a reference toward China, which may lay a claim to territory in Russia’s Far East that once belonged to the Chinese Emperors.\(^{58}\) The other main territorial claim that the RF has to fear is the dispute with Japan over the status of the South Kuril Islands aka the Northern


\(^{57}\) Ibid.

Territories. However, neither country is referred to by name. Therefore, the explicit mentioning of NATO and its listing as the first of eleven external threats may be symbolic and indicate that Russia’s leadership feels threatened by more than just NATO expansion and its global operations.

Russia’s leaders may not be able to view NATO as anything other than a threat. Following the collapse of the Soviet Union, Russia lost a substantial portion of its strategic depth along its western border, a direction from which many invasions have come. The loss of Belarus and Ukraine in particular pushed the Russian border back to what it was during the 17th century. The collapse of the communist regimes in the former-satellite states gave rise to states that were more often than not decidedly anti-Russian and sought closer ties with the West. Soon after, a number of these states were permitted to join the NATO alliance which placed these countries under NATO protection and provided them with the other benefits associated with membership.

Increased NATO expansion east established alliance troops and infrastructure closer to the Russian border and closer to the major urban and industrial regions of internal Russia placing them at risk. While NATO has never indicated that it has any intent to attack Russia – point 33 of NATO’s 2010 Strategic Concept explicitly states “NATO poses no threat to Russia. [emphasis added]” – and the fact that it is an inherently defensive organization, Russia’s leaders had to realize that if it chose to, NATO could pose a major challenge in the event of a military conflict. This can be seen

by the common reference to “groups of states” in Russian military documents when referencing external threats. References regarding concern over military modernization and the “growing technical advantage of a number of leading powers” are also commonly cited along with the need to overcome it.61 These leading powers are likely Germany, France, the United Kingdom, and the United States, all core NATO members.

When considering the information regarding conditions under which the Russian Federation would consider employing nuclear weapons; the specific external threats it identifies; and certain references throughout the rest of the 2010 Russian Military Doctrine; it becomes clear that Russia’s leadership still believes that nuclear weapons fulfill a critical function in Russian national security. While Russia’s leaders hope that this increased role is only temporary until its conventional forces can recover, as was the case during the 1990s, in all likelihood the looser restrictions for nuclear weapons are here to stay and whether Russians realize it or not, many of the external threats they articulate can most easily be defeated or deterred by its nuclear arsenal.62 This fact only increases the appeal of nuclear weapons.

Although Russia’s conventional forces are not powerless by any means, they are much weaker and less effective in the 21st century. Russia’s conventional military, particularly its ground forces, are plagued by low morale, weak leadership and training, and outdated equipment. In addition, the Russian military primarily depends on a conscript force whose period of service has been reduced to a mere 12 months. This short service period makes for ill-trained and ill-prepared soldiers. The weakness of Russia’s

61 Russian Federation, “Russia’s National Security Concept.”
62 Fritz W. Ermarth, Russia’s Strategic Culture: Past, Present, and...in Transition? (SAIC, October 31, 2006), 18.
conventional forces was highlighted by the recent war with Georgia in 2008. This included the inability of the Russian Air Force to establish air superiority during the conflict, the loss of several air force jets to Georgian air defense, and the inability to employ precision-guided munitions during the conflict.

The general consensus by Russian and foreign experts is that Russia’s conventional military forces are inherently weak and unprepared for a 21st century conflict. They may be able to confront and defeat any of the Former Soviet Union (FSU) states with limited difficulty in isolation or even in combination, but at this time would be at a major disadvantage against the conventional forces of major military powers such as China, Germany, or the United States even in isolation. If conventional forces are unable to effectively discharge their responsibilities and cannot confront the external threats outlined, then nuclear weapons become the only effective means of deterring and defeating some of the external threats outlined in the RMD. Since Russia’s leaders are aware of the fact that their conventional military forces fall short in many areas they must also realize that the only available option then becomes a greater reliance on nuclear weapons.

Whether intentional or not, many of the external threats listed in the 2010 RMD are directly related to Russia’s nuclear capability. Bullet D refers to the deployment of missile defense systems and bullet F refers to nuclear proliferation and the increase in potential nuclear weapons states. The rise of these two concerns would diminish Russia’s nuclear trump card. The deployment of an effective missile defense system could minimize the effectiveness of a nuclear attack, requiring more missile launches per target to increase the probability of penetrating a missile defense system, or potentially render
nuclear weapons obsolete if the system is effective enough. Meanwhile, an increase in the number of states that possess nuclear weapons would increase the amount of damage such a state could inflict on Russia if it decided to attack or counter-attack. In addition, nuclear weapons proliferation would constrain Russia’s military options unless it wanted to risk a nuclear conflict, even one of limited proportions.

Russia’s concerns about NATO and territorial claims against the Russian Federation, bullets A and E respectively, are two external threats that nuclear weapons are ideal solutions for. Should a threat emerge regarding either of these bullets, then nuclear weapons provide an effective deterrent or means of retaliation should conventional forces fail in this endeavor. However, it should be stressed that at this time there does not appear to be any direct threat posed by NATO to the Russian Federation, regardless of what may be written in the 2010 RMD. Also, the only substantial territorial claims that may be of concern for the Russian Federation are in the RFE with China and Japan. China does not want to engage in any kind of military conflict with Russia because it would be counterproductive to its own goals at this time and because Russia is a nuclear power. Also, Japan does not wish to engage in a military conflict with Russia either and is prevented from resolving it through military force due to its pacifist constitution.

The Russia Federation appears to have intentionally outlined potential external threats that it must know that it cannot at this time easily defend against using its conventional forces. Russia’s concerns about NATO, deployment of missile defense systems, territorial claims against it, and the increase in states possessing nuclear weapons all are related to Russia’s reliance on nuclear weapons and either threaten them
or require their usage. Bullet C refers to the deployment of potentially hostile troops along Russia’s periphery. Once again, if these foreign troops pose a threat and if all other avenues fail to remove their presence then it will be up to the conventional military forces to deal with this threat if it cannot be resolved diplomatically. If Russian conventional military are unable to handle the situation then nuclear weapons may have to be used (or threaten their use) to deter, defeat, or force a retreat of the threat. With the current state of Russia’s conventional forces and the outlined external threats Russia’s leaders feel they face, the Russian Federation is intentionally moving itself toward a reliance on nuclear weapons because it will be the only means by which it can face these perceived threats.
CHAPTER FIVE: RUSSIA’S POPULATION PROBLEMS

One of the reasons why the Russian Federation will become increasingly dependent on nuclear weapons for national security is because of its inability to draw upon enough individuals to fill the ranks of its armed forces. In addition to its geographic size, Russia has always depended heavily on its large population.

Indeed, manpower has traditionally been seen as an almost limitless resource, often providing Russia the means to overcome shortcomings in other areas such as technology, strategy, or professional military experience.\(^{63}\)

However, over the next few decades, Russia’s ability to do so will diminish as numerous social factors begin to affect both the Russian military and civilian population. The spread of numerous infectious diseases, external causes of death, low fertility rates, high mortality, the legacy of poor health care services, lack of funding for health infrastructure, and overall poor health of the general population are leading to the decline of the Russian people. As the health of the domestic population diminishes, it impacts the state’s ability to recruit healthy soldiers by decreasing the pool of eligible candidates able to serve in the military. It also increases the burden on the state by increasing the demand for healthcare services and on the economy as there are fewer individuals able to enter the workforce. The numerous social problems facing the Russian Federation will be explored below; however, this should not be considered an exhaustive list.

Declining Birth Rates

The Russian Federation faces a fundamental problem when it analyzes its population: every year more people die than are born. While the Russian Federation is not the only European state to suffer from a negative population growth rate, its negative growth in one of the highest at -0.47.\textsuperscript{64} Out of the 233 countries listed on the CIA’s World Factbook for annual Population Growth Rate, Russia ranks 222. Also, World Factbook’s population estimate lists Russia’s population as one of the lowest having already dropped below 140 million.\textsuperscript{65}

Russia’s leaders are fully aware of the population decline and in 2000, then-President Vladimir Putin listed population decline as the first out of sixteen acute problems facing the country.\textsuperscript{66} Russia’s population is decreasing by as much as 750,000 every year, primarily due to the excess of deaths over births.\textsuperscript{67} This is about the number of new conscripts that must be recruited every year by the Russian Armed Forces to maintain a size of 1.1 million.\textsuperscript{68} As of 2005, male births already equal the number of individuals that currently need to be conscripted every year. However, not all males survive until their draft year (minimum 18 years of age) and even then not all males are


\textsuperscript{67} Ibid.

eligible for service. Therefore, at this time not enough males are born within the Russian Federation to meet the current recruitment quotas eighteen years down the road. If births continue to decline as they have in the past, then the pool of eligible candidates will only become smaller making it impossible for the Russian Armed forces to maintain a million man army under 12 month contracts.

There are a number of factors for the low birth rate. The primary amongst them is the low fertility rate. Russia currently has a fertility rate of 1.4 children born per woman but would require 2.1 to simply meet the natural replacement rate. Russia would need almost a doubling of the fertility rate just to maintain its current population levels; however, this is not expected anytime soon despite the limited efforts to boost fertility. This low fertility rate is compounded by the fact that two-thirds of all births in Russia are born by females in the prime childbearing age group of 20 to 29, and this specific age group is estimated to decline over the next two decades. In addition, “fifteen to 20 percent of all Russian families experience infertility, with 10 to 15 percent of females infertile, and some 5 to 10 percent of males.” Infertility is exacerbated amongst women since “two-thirds of all pregnancies now end in abortions.” In 2008, there were 1.2 million abortions compared to 1.7 million births making abortions and births almost

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69 “The World Factbook 2011 (Russia).”

70 Holachek, Russia’s Shrinking Population and the Russian Military’s HIV/AIDS Problem, 7.

71 Feshbach, “Russia’s Demographic and Health Meltdown,” 289.

72 Ibid.

73 Ibid.
equal.\textsuperscript{74} It should be noted that the recorded number of abortions may in fact be higher as some of them take place in private or illegal clinics from which statistics are unavailable.\textsuperscript{75} Of the 1.2 million women who undergo an abortion, 30,000 of them become sterile, many from the estimated 180,000 illegal abortions...[and]...[a] quarter of deaths among pregnant women are the result of illegal abortions.\textsuperscript{76}

The rate of illegal abortions is unlikely to change any time soon as few cases of illegal abortion are ever investigated and even fewer are ever prosecuted.\textsuperscript{77} The low fertility and high abortion rate are heavily influenced by the current economic situation in Russia. “According to a study published in late June 2001...30 percent of young females do not wish to have children because of the economic hardships they confront.”\textsuperscript{78} The current rate of infertility and abortions are robbing the Russian Federation of over a million births every year and are continually reducing the number of women able to bear children.

Amalgamate of Health Issues

HIV/AIDS and tuberculosis (TB) are just two of the major infectious diseases culling the Russian population. While these and other diseases differ in the ways they kill their victims and are spread and treated in different ways, they often affect the same high-risk groups and co-infections are common. Analysis of infectious diseases must also

\begin{itemize}
\item \textsuperscript{75} Feshbach, “Russia’s Demographic and Health Meltdown,” 289.
\item \textsuperscript{76} “Illegal Abortions Worsening Russia’s Demographic Problems.”
\item \textsuperscript{77} Ibid. “…according to investigators, there were just 28 cases opened into illegal abortions in 2009. The figure was 27 in 2008, and over those two years less than 10 cases made it to court.”
\item \textsuperscript{78} Feshbach, “Russia’s Demographic and Health Meltdown,” 289.
\end{itemize}
include illicit intravenous drug use as this is a common means by which disease is spread and drug users represent one of the primary high-risk groups. However, the importance of high-risk groups is beginning to diminish, especially in regards to illicit drug users, as diseases such as HIV/AIDS are becoming more generalized amongst the Russian population. Intravenous drug use, high rates of co-infections, and poor testing and record keeping make it extremely difficult to establish a clear picture of the health issues facing the Russian Federation. This does not even include intentional attempts by local or central government officials to adjust the data, for political reasons, to present a more favorable picture for domestic or international audiences.

In particular, high rates of co-infection often mean that one disease may be recorded as the primary cause of death but ignores the underlying infection. For example, a patient’s record may indicate that they died from pneumonia but ignore the HIV/AIDS they suffered from which would have made that individual more susceptible to infection and unable to fight it off. This creates misleading and skewed data as complete statistics go unrecorded and make it difficult to track the incidence, prevalence, and mortality of these diseases. Also, health agencies and non-governmental organizations often specialize or record data separately by individual illnesses. Therefore, it is necessary to consider the available data cumulatively as the Russian Federation’s health problems are a combination of poor healthcare services and malnutrition in addition to infectious diseases.
HIV/AIDS

HIV/AIDS is one of the most destructive diseases currently ravaging the Russian population. At this time, an HIV-positive diagnosis is all but a death sentence as the average life expectancy between the initial HIV-infection and death is estimated at no more than twelve years.\textsuperscript{79} This is largely due to the high cost and low availability of antiretroviral therapy which today has the ability to substantially extend the life of an HIV positive patient’s life and improve their overall quality of life.\textsuperscript{80} The disease was initially concentrated in three high-risk groups: commercial sex workers, the prison population, and intravenous drug users.

A recent [2005] study conducted in Saint Petersburg found 30 percent of injecting drug users to be HIV-positive. Various other studies have found HIV rates among commercial sex workers in Saint Petersburg to range between 30 to 60 percent….The HIV prevalence rate among Russia’s large inmate population is reportedly four times higher than in the population at large.\textsuperscript{81}

These three high risk groups form a self-reinforcing cycle as sex workers may also be intravenous drug users or HIV-positive former prisoners have contact with sex workers (See Figure 2). However, the disease has started to break out from these three groups, through homosexual and heterosexual contact, as members of high-risk groups have contact with individuals outside this cycle who unknowingly become carriers themselves. Heterosexual transmission of HIV/AIDs in particular has been on the rise. “In 2005,

\textsuperscript{79} Holachek, \textit{Russia’s Shrinking Population and the Russian Military’s HIV/AIDS Problem}, 5.

\textsuperscript{80} Ibid., 6.

\textsuperscript{81} Ibid., 4.
heterosexual transmission accounted for 32 percent of newly registered cases of HIV infection, up from just 6 percent in 2001.\(^8^2\)

The Dynamic of how HIV/AIDS is Spread among Russia’s High Risk Groups

![Diagram of HIV/AIDS transmission](image)


As referenced above, an exact estimate of how many people in Russia are actually infected with the HIV/AIDS (or other diseases) is impossible to determine and differs based on which government agency or international organization one chooses to reference.

In September 2005, Dr. Vadim Pokrovskiy, Chief of Russia’s Federal AIDS Center in Moscow and Russia’s leading expert on HIV/AIDS, testified before the Russian Duma that a total of 330,500 Russians had been officially registered as having HIV or AIDS…[but] that the actual number of Russians living with HIV could be as high as a million people, over half of whom do not know they are HIV-positive.\(^8^3\)

\(^8^2\) Ibid., 5.

\(^8^3\) Ibid., 2.
UNAIDS’s 2009 average estimate of the number of people living with HIV/AIDS is 980,000 within an estimated range of 840,000 to 1,200,000.\textsuperscript{84} CIA World Factbook also estimates approximately 980,000 HIV/AIDS cases.\textsuperscript{85} However, according to some sources, the actual number of cases may run as high as 1.5\textsuperscript{86} or even two million.\textsuperscript{87}

This statistical outlook grows worse when considering the fact that the majority of those infected are Russian youth. Eighty percent of the HIV positive population is under the age of 30,\textsuperscript{88} and infection is relatively equal between males and females.\textsuperscript{89} The majority of newly registered HIV infections are among those 15-29 years of age.\textsuperscript{90} In contrast, in the United States and Western Europe, 70 percent of those infected are men over the age of 30.\textsuperscript{91} The increased infection rate for Russian women is likely due to the increase in heterosexual transmission.\textsuperscript{92} Also, “[i]n 2005, over 11,000 pregnant women in

\begin{footnotesize}
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  \item \textsuperscript{85} “The World Factbook 2011 (Russia).”
  \item \textsuperscript{86} Holachek, \textit{Russia’s Shrinking Population and the Russian Military’s HIV/AIDS Problem}, 2.
  \item \textsuperscript{87} Nicholas Eberstadt, “The Future of AIDS,” \textit{Foreign Affairs} 81, no. 6 (December 2002).
  \item \textsuperscript{88} Murray Feshbach, \textit{HIV/AIDS in the Russian Military - Update*} (Woodrow Wilson International Center for Scholars, February 22, 2005), 5.
  \item \textsuperscript{89} “HIV and AIDS Estimates (2009).”
  \item \textsuperscript{90} Holachek, \textit{Russia’s Shrinking Population and the Russian Military’s HIV/AIDS Problem}, 5.
  \item \textsuperscript{92} Holachek, \textit{Russia’s Shrinking Population and the Russian Military’s HIV/AIDS Problem}, 5.
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Russia tested positive for HIV” meaning that a certain percentage of children born already carry the fatal disease.\textsuperscript{93}

Therefore, not only are both genders being hit equally by this disease but it is primarily targeting Russia’s future generations, even the unborn. The impact on the 15-29 aged cohorts will reduce the number of individuals that will be able to both serve in the military and fill vacancies in civilian workforce. Competition between the two is also likely to increase with most young adults preferring the civilian workforce over military service due to the current poor conditions inside the military. The impact on females is especially important as it further reduces the number of women who will live to reach the prime childbearing age group of 20-29, and those that do and are infected with the virus are likely to pass it on to their children. Therefore, the impact of HIV/AIDs on the military is that fewer individuals will be able to serve because they are already infected with the HIV/AIDS virus when they are called up for draft. Also, the disease is currently reducing the number of women who will live to bear children which means that there will be fewer few individuals born in the next generation to fill the ranks and meet conscription quotas.

Tuberculosis

Tuberculosis has become a major problem in Russia and its impact is compounded by the fact that those infected with TB are often co-infected with HIV/AIDS. However, attempting to estimate the number of individuals with this co-infection is difficult at best as there is a gap between those that are known to be infected

\textsuperscript{93} Ibid.
with both diseases; know they carry one but not the other; or do not know that they are infected with either. UNAIDS estimates that, globally, a third of all people living with HIV are co-infected with TB. As of 2009, it is believed that as many as two-thirds of Russians with AIDS at death were also suffering from TB, up from 50 percent five years ago. In addition, the spread of drug resistant TB and multi-drug resistant TB (MDR-TB) have started to increase in prevalence which will only make it harder to cure new TB cases. The World Health Organization estimates that as of 2009 there were 190,000 cases of TB in Russia with a low/high estimate between 65 and 320 thousand respectively. Globally, of the 440,000 cases of MDR-TB in 2008, 38,000 were in Russia which indicates that MDR-TB is gaining a foothold. In 2007, a total of 24,000 Russians died from TB. In comparison, in the United States, with a population twice the size of Russia, only 650 died of the infection.

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96 Ibid.


98 Ibid.

99 Feshbach, “Behind the Bluster, Russia is Collapsing.”

100 Ibid.
Malnutrition and Deficiencies

As surprising it may seem for an industrialized state such as Russia, malnutrition is a major problem affecting all strata of society that has a significant impact on the development of the population, particularly its youngest members. One of the most surprising statistics was provided by the National Institute of Nutrition of the Russian Academy of Medical Sciences which determined that half of all newborn children were found to be iodine or calcium deficient.\footnote{Murray Feshbach, \textit{Russian Demography, Health and the Military: Current and Future Issues} (AIDS, Security and Conflict Initiative, April 2008), 8. http://asci.researchhub.ssrc.org/russian-demography-health-and-the-military-current-and-future-issues/attachment.} According to an article published in the February 2007 issue of \textit{Public Health of the Russian Federation}, at the beginning of the decade starting with 2000:

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\text{[A]} \text{ Vitamin C deficit was found among 60 to 80 percent of the population regardless of income, a calcium [deficiency] among 40 to 60 percent, iron deficiency among 20 to 40 percent, folic acid among 70 to 80 percent, a vitamin B complex deficit among almost 40 percent, and IDD (iodine deficit deficiency) among almost 70 percent of the population.} \footnote{Ibid., 11.}
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Vitamin deficiencies reduce a body’s ability to fight off infection\footnote{Ibid., 11.} while a deficiency in calcium increases bone and skeletal illnesses.\footnote{Feshbach, “Russia’s Demographic and Health Meltdown,” 299.} The rise in iodine deficiency is due to the fact that iodized salt has not been produced in Russia since the collapse of the Soviet Union and little has been imported.\footnote{Feshbach, \textit{Russian Demography, Health and the Military: Current and Future Issues}, 10.} “In young children, iodine deficiency causes mental retardation.”\footnote{Feshbach, “Russia’s Demographic and Health Meltdown,” 298.} While the impact of these deficiencies may not be readily apparent
or have an immediate impact, over time they have the potential to drastically impact the overall health of the Russian population and therefore the pool of potential candidates for military service.

Alcoholism

Alcoholism is a disease of epidemic proportions facing Russian society. According to the Russian interior minister, Rashid Nurgaliyev, “[a]lcohol consumption is more than double the critical level set by the World Health Organization.” As many as 20 million Russians are referred to as being alcoholics. “Poisoning by counterfeit alcohol kills 42,000 Russian every year,” compared to 300 in the United States. In 2001, accidental alcohol poisoning equated to a rate of 28.5 per 100,000 of the population which was 120 times the European average. Another “75,000 die of alcohol-related diseases…. [and] 500,000 die annually from diseases, crimes and accidents due to

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108 Feshbach, “Russia’s Demographic and Health Meltdown,” 298.


110 Feshbach, “Russia’s Demographic and Health Meltdown,” 298.

alcohol.”  
112 Russia also has one of the highest levels of per capita consumption among adults, listed at 18 liters of pure alcohol annually.  
113 Alcohol abuse is also on the rise amongst Russian youth. The average age of people who begin drinking has decreased from 16 to 13 years.  
114 “The total number of children aged 10-14 who drink alcoholic spirits rose 15.4% in 2008 (10.85 million).”  
115 The consequence of these factors is that thousands of Russians are dying every year, further adding to Russia’s demographic decline. Working age males are the hardest hit by the effects of alcohol. “Conservative estimates attribute 31-43% of deaths among working-age men to alcohol.”  
116 This reduces the number of males who currently can or will be able to serve in the armed forces and the civilian work force. Meanwhile, those that suffer from alcoholism fare no better being functionally useless in either the military or civilian establishments.

Other Health Issues

The health issues listed above provide only a snapshot of the problems facing the Russian population and by extension their ability to field a large military force. An in-depth and exhaustive review of all the health and mortality issues plaguing the Russian population.

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114 “Russia’s Alcohol Consumption More than 100% Above Critical Level.”

115 Ibid.

population is beyond the scope of this product. The purpose here is to focus attention on the fact the prevalence of communicable, non-communicable diseases, and external causes of death exist at high rates and often far higher than their European and Western counterparts; and these rates are steadily increasing in incidence, prevalence, and mortality. The net effect is that as the population decreases, there will be fewer individuals – particularly draft-eligible males – that can serve in the armed forces. In addition, there will be a negative impact on the economy and GDP growth as fewer Russians live to fill vacancies in the economy, or are healthy and able enough to fill them.

As indicated by the data, the impact of these illnesses and other issues is especially hard on Russian males. Sixty percent of Russian males smoke which increases the chance for cancer and future health complications. Meanwhile, the suicide rate among men is the second highest in the world and three times the rate in the United States. Also, “external causes of death (murders, accidents, poisoning, traffic accidents, and the like)…are the second most common cause of death” in Russia among the general population. By comparison, worldwide, external causes of death fall between fifth and ninth on the list. The murder rate in Russia is especially high compared to other developed nations. In 2009, it is believed that there were some 46,200 murders, 2.5 times


118 Ibid.


120 Ibid.
the officially government statistics of 18,200.\textsuperscript{121} By comparison, there were only 16,000 murders in the United States, a country with twice Russia’s population and much looser firearm restrictions.\textsuperscript{122} It is estimated that as many as “50 percent of 16-year-old males in Russia do not survive until age 60; [and] 40 percent of all males die between 16 and 60 years of age.”\textsuperscript{123} Drug use is also a growing concern amongst Russians with an estimated 5 million addicts,\textsuperscript{124} the majority of them in the 18-30 year age range.\textsuperscript{125} Factor in Russian males’ high share of alcoholism and share of traffic fatalities (over 70%),\textsuperscript{126} and their equal share of HIV/AIDS and TB infection, and the conclusion that must be reached is that without strong and immediate change in these trends, Russia is heading for a demographic catastrophe that it may not be able to recover from.

Demographics is Destiny

Quantifying the impact of all these problems and issues is difficult if not impossible. Part of the problem stems from the fact that comprehensive studies of all these issues in conjunction have not been conducted. Domestic Russian government


\textsuperscript{122}Ibid.


agencies, international organizations, and non-governmental organizations tend to focus their missions and data collection efforts on singular issues such as alcoholism, HIV/AIDS, or female reproduction. Therefore, professional analysis of how all these social problems fit in together, how they interact, and what their cumulative impact on the Russian population will be is difficult – if not impossible – to determine. This is compounded by the fact that there is extensive crossover between all these issues. An intravenous drug user suffering from malnutrition and infected with the HIV/AIDS virus is one such example of an individual that falls into three distinct categories. Or the death of an AIDS patient that is co-infected with the tuberculosis may only be recorded as a TB death and ignore the underlying infection which would have weakened their immune systems substantially. In addition, the magnitude of these problems is only now starting to emerge and catch the attention of institutions and researchers, so any research may still be in the early stages with no conclusions.

How exactly all these numerous social and health problems will impact the future of the Russian population is unknown. However, based on the current statistical data and the current lack of government intervention the future looks bleak. The Russian state faces a demographic abyss that if goes uncorrected will spell disaster for the Russian population. The effects of these problems are already starting to be felt and are likely to increase in prominence as they mature and metastasize. The impact on Russia’s military will be profound as the pool of eligible candidates for military service grows smaller with each passing year because of fewer male births, more male deaths, and a shortage of healthy able bodies.
Once again, nuclear weapons must fill this ever increasing gap in Russia’s national security. As the number of individuals that can serve in the military becomes increasingly finite, it will be impossible for the Russian government to maintain a million-man army. If the Russian leadership reduces the size of its military forces to accommodate this reality, it will still leave them feeling vulnerable and unable to meet all of their military commitments and national security needs, especially considering their current threat perception. Therefore, nuclear weapons provide the ideal solution through which to overcome their manpower issues yet still provide an assurance of security and military success. Unless the demographic and social trends within Russian society are reversed, Russia’s leaders will have no option but to increase their reliance on nuclear weapons to fill the void left by their conventional military forces.
CHAPTER SIX: RUSSIA’S MILITARY CAPABILITIES

Conventional Capability

Russia possesses substantial conventional military forces. In terms of raw figures, the conventional military of the Russian Federation represents a formidable force that would make any adversary think twice about becoming involved against it militarily. The Russian Federation has almost a million individuals in uniform at any one time and tens of thousands of pieces of military equipment at its disposal, everything from tanks, armored personnel carriers, to jet fighters, to cruisers and destroyers. However, closer examination of the equipment available and the status of current soldiers belie the raw numbers.

First, most of the equipment fielded by ground, air, and sea forces was produced by the Soviet Union or is based on Cold War design. The production and distribution of new equipment that represents an improvement over the previous generation and that is appropriate for the changes in military conflict in the 21st century is slow. Maintenance and upgrades of current equipment are unevenly spread across the military and most often consist of the utmost minimum to ensure they continue to function and extend the service life of equipment as long as possible.

Second, the Russian Government has demonstrated that it does not believe that its own military industry currently has the ability to produce the weapons that Russian conventional forces will require in the future. This has been highlighted most recently by
a number of foreign weapons purchases including the French built *Mistral*-Class amphibious assault ship, and the decision to purchase Israeli produced unmanned aerial vehicles (UAVs). The contract could be worth as much as $260 million and would provide “3.1 ton armored vehicles…on a 4x4 wheel platform” for Russia’s Federal Security Service border guards. On February 9, 2011, the Russian Defense Ministry signed a deal with private defense company Rheinmetall to build a combat training center for the Russia military.

The defense arm of the [Rheinmetall] is…Europe’s top supplier of defense technology and security equipment for ground forces. It specializes in armor, gunnery, propellants and munitions manufacturing but has a fairly broad defense portfolio comprising training and simulation solutions as well as command, control, communications, computers, intelligence, target acquisition and reconnaissance (C4ISTAR) — all of which are of particular interest for Moscow.

The facility would provide training for brigade-size units and would provide modeling and simulated tactical combat situations. On March 5, 2011, it was also reported that the Ministry of Defense would be purchasing light armored vehicles for motor infantry

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129 Ibid.


131 Ibid.

132 Ibid.
units from Rheinmetall Chempro. Finally, Russia may acquire as many as 3,000 Italian Iveco M65E vehicles, light multirole combat vehicles for the Russian army.

In total, Russia is expected to purchase as much as $12 billion in arms from European and Israeli companies over the next five years, much of it from Europe’s premier defense contractors. Together, these and other actions show that the Russian military industrial complex is currently unable to produce weapons of the necessary type, quality, and sophistication and that the only alternative it to turn to foreign purchases to meet Russian military requirements. The benefit of foreign purchases is that it saves the RF massive amounts of money in research and development, construction, and allows for an increase in capability much faster than if it decided to achieve it on its own. The downside is that it diverts money away from state defense industries that could use the funds to develop the domestic capability and know-how on their own. Also, the Russians realize that such weapons purchases will only allow them catch-up so far and that they will never be able to purchase top-of-the-line weapons from abroad. Therefore, foreign purchases will not allow for an equalization of military capabilities.

Third, examination of the political debate surrounding military reform and modernization reveals that there is no clear consensus on what to do, how to do it, and what the effectiveness of previous reforms has been. Talk of military reform has been

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135 Ibid.

ongoing since the collapse of the Soviet Union; however, the particular direction that it should go in has been unclear. Under former Defense Minister Igor Sergeyev (1997-2001), a heavy emphasis was placed on the modernization and improvement of the Strategic Missile Forces (SMF). This was partially because Sergeyev was formerly the commander of the SMF; because it was believed that the nuclear forces would be the best way to protect the RF at a time that the Russian conventional forces were weakened;\textsuperscript{137} and because it was justified by an irrefutable argument that the available limited funds could buy a reasonable modernization of the nuclear triad – but would disappear without a trace if channeled toward the unreformable ground forces.\textsuperscript{138}

This policy of favoring the SMF was finally overturned by President Putin in 2001 and resulted in the removal of Sergeyev and his replacement with Sergei Ivanov.\textsuperscript{139}

Since then, there have been several different plans for modernization, rearmament, and reform. The most significant proposals were to phase out conscription in favor of a professional all-volunteer military, however, to-date this has resulted in limited success and conscription is expected to continue for the time being. In fact, the only substantial change has been to decrease the number of circumstances under which a conscription deferment can be obtained and to make non-military civil service more unappealing. The goal of these two actions was to increase the number of males available for conscription and make it the more preferred choice of mandatory public service. The fact remains that Russian conventional forces continue to suffer from serious personnel

\begin{footnotes}
\item[139] Zoltan Barany, \textit{Democratic Breakdown and the Decline of the Russian Military}, 137.
\end{footnotes}
and equipment problems which undermine their ability to perform their duties and discharge their responsibilities.

Unlike in the United States and other Western nations, the military budget of the Russian Federation is not openly discussed in parliament or available for public scrutiny.\textsuperscript{140} This lack of transparency makes it difficult to know exactly how much money is devoted to defense overall, how much is allocated for each branch, or how the Ministry of Defense chooses to spend its funds.\textsuperscript{141} Therefore, it is difficult to ascertain how much money is actually devoted to modernization and reform and whether or not it is spent appropriately. Public statements by Ministry of Defense officials are constantly subject to change and sometimes contradict themselves making them questionable sources of information.

Due to these issues, ascertaining the abilities and overall effectiveness of Russia’s conventional forces must be based more on observations rather than official reports or statement. Therefore, the recent Russo-Georgian conflict in August of 2008 provided outside observers with an excellent opportunity to see Russian air, ground, and sea forces engaged in action. This conflict provides a microcosm for what could be expected from Russian forces in the event of any of the potential conflicts outlined in the Russian Military Doctrine. Post-war analysis of Russian performance is strikingly in contrast with Russian assertions of military prowess. Throughout the following analysis of Russia’s conventional forces, comparisons of each branches’ performance during the Georgian

\textsuperscript{140} Ibid., 119.

\textsuperscript{141} Ibid.
conflict will be highlighted to emphasize the current capabilities within the Russian military.

Ground Forces

Russia’s ground forces comprise the largest branch of Russia’s conventional forces. Russia has always been a land power out of geographic necessity. The ground forces are the most important because most of the external threats that the RF faces, perceives to be facing, or is likely to face in the future emanate primarily along Russia’s periphery. Therefore, ground forces are the most logical force with which to meet those threats. Naval and air force assets are mostly limited to supporting and complimentary roles in conventional conflicts. Despite the importance of ground forces to Russia’s national security, they appear to be the weakest branch of all three.

Personnel

Russia’s ground forces today suffer from a multitude of problems that more often than not go unaddressed. The first major problem is personnel. “In line with the ongoing military reform, the Russian Armed Forces will be downsized to 1 million personnel by 2016, enlisting 150,000 officers and about 745,000 soldiers” the majority of whom will be conscripts.¹⁴² Yet, there are currently consistent manpower shortages at every level. In November 2008, during the immediate post-war analysis between Russia and Georgia, Army-General Nikolay Makarov, Chief of the General Staff stated that “[e]ighty-three

percent of Army units were numerically incomplete, and only 17 percent were combat ready.”143

On January 1, 2008 conscription service was reduced from 2 years to 1 year.144 This does not allow for enough time to appropriately train conscripts in their specialization nor allow for enough time to create proper unit cohesion. The declining demographics situation in the RF is already making it increasingly difficult to find eligible candidates for military service. Also, convincing Russian youths that military service is a promising career is challenging as reports of abuse and hazing, squalid living conditions, exploitation of “conscripts and contract soldier by commanding officer for personal financial gain…[and the]…accident prone nature of the service” permeates the draft eligible cohort.145

Meanwhile, there are more attractive and luring opportunities in the private sector that offer a better life and higher salary than could be achieved through military service.146 After multiple pay raises even as recently as 2006,

platoon or company commanders – ranking from senior lieutenant to captain – are still paid less than escalator attendants in Moscow (8,000 rubles [around $285]). The monthly wage of a Moscow streetcar driver (18,000 rubles) is said to be beyond their dreams.147


146 Ibid.

147 Zoltan Barany, Democratic Breakdown and the Decline of the Russian Military, 67.
As early as 1996, “high school students rated “army officer” as the least prestigious on a long list of occupations.” The result is that the quality of many conscripts recruited every year, in terms of health and education, is decreasing as those who can, do anything possible to avoid service, leaving the military to recruit the least desirable candidates.

Data collected on the spring 2005 conscription cycle showed that…45 percent had never held a job or studies at the postsecondary level, 5 percent had criminal records, 25 percent had not finished high school, nearly one-ninth were alcoholics and/or regular drugs users, and some were illiterate.

The Russian Government has decided to attack the problem of finding conscripts not by improving conditions and clamping down on abuses, but by making it harder for Russian males to avoid service. Russian police in major cities are now used to help round-up conscripts. Raids have been performed on college dormitories to find students that have been draft dodging. The number of eligible deferments and waivers has been reduced from 25 to 16.

Particular attention has been focused on the higher education system, so that fewer colleges would have military departments and more graduates would be eligible for draft.

Civilian service, which has long been a popular alternative to military service, has been drastically altered to make it increasingly unappealing. Civilian service allows draft-age young men the option of opting out of conventional military service and choosing

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148 Ibid., 63.
149 Ibid., 64.
150 Alexander Golts, “The Collapse of the Russian Army from Within.”
151 Ibid.
152 Zoltan Barany, Democratic Breakdown and the Decline of the Russian Military, 64.
civilian service instead.154 However, in July of 2002, then-President Putin signed legislation into law that obligated anyone choosing civilian service to serve for three-and-a-half years, three times longer than the current conventional military conscripts.155 “Furthermore, the law – which came into force in January 2004 – says that alternative service must be performed away from the individual’s normal residence.”156 Meanwhile, military conscripts are allowed to serve near their home. Therefore, choosing civilian service would place an individual far from home, increasing the economic burden on anyone who desires to pursue this alternative. The result has been unsurprising with only “186 out of about 155,000 draftees in the spring 2005 conscription cycle” selecting civilian service, and even then “military commissioners often demand bribes (up to $800) even to accept application for alternative service.”157 The Russian Government’s solution to finding people to meet its military quotas is to invest more in forcing Russian males to serve as opposed to make military service more appealing and desirable.

However, even if the Russian military could meets its yearly conscription quotas without difficulty and increase the amount of service required of new conscripts, this would do little to substantially improve unit cohesion or ground forces capability so long as the destructive practice of “dedovshchina” exists and permeates the enlisted ranks. Dedovshchina is a system of “institutionalized bullying by older conscripts” upon new conscripts.

154 Zoltan Barany, Democratic Breakdown and the Decline of the Russian Military, 118.
155 Ibid.
156 Ibid.
157 Ibid.
and lower levels of enlisted personnel. This abuse is believed to be responsible for numerous mutinies, suicides, and potentially thousands of avoidable deaths each year. In 2005 alone, “hazing was the direct cause of six thousand injuries requiring hospitalization.”

According to official figures, there are about a thousand non-combat deaths each year in the Russian armed forces but the well-informed Soldiers’ Mothers Committees claim the true figure is closer to 3,000 deaths a year.

Most of these deaths are a result of bullying and suicides of soldiers who can no longer face the abuse. What is worse is that this kind of abuse is not limited to the enlisted personnel. There are numerous accounts of officers abusing other officers or enlisted personnel which often result in serious injury and death. These kinds of abuses have created conditions of low morale amongst Russian soldiers and heavily contribute to Russian society’s negative attitude toward the military and military service.

The problems with the officer corps are not limited to physical abuse. Corruption and embezzlement have become systemic as military officials find ways to line their

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159 Zoltan Barany, Democratic Breakdown and the Decline of the Russian Military, 65.


161 Ibid.

162 Ibid. By now, physical abuse is such an accepted part of Russian military life that many officers routinely use force themselves to discipline their soldiers; only the exceptional cases come to public notice. For example, in October 2002 a Captain Ilyasov was court-martialed in Yekaterinburg. He would regularly wake his soldiers up during the night for a snap inspection and if he found anything amiss would beat the culprits with a rubber dildo. In September 2002, after a drunken escapade by some conscripts who had nearly completed their service, the chief of staff and some officer of an artillery battalion beat five likely offenders with spade handles and threatened the rest of their soldiers with similar treatment.
pockets at every opportunity. Accounts are falsified by commanders who collect salaries for soldiers who do not exist. Soldiers are hired out as slave labor by their commanders for cash or favors such as performing harvests or building dachas. In 2005,

theft alone amounted to $60 million...[and]...about 16,000 military personnel were charged with a variety of crimes, including 100 senior commanders and eight generals or admirals.

In 2008, of the over 20,000 recorded crimes involving the Armed Forces and other security departments by military prosecutors, one in four was committed by an officer, causing over 2 billion rubles ($56 million) in damages. Bribes to the correct individuals and of appropriate size can help someone avoid military service, get them a plum position, or a preferred stationing. Money allocated for salaries, barracks improvements, and even food is often siphoned off into personal pockets while soldiers live in squalor and go hungry. This sometimes leaves soldier with no choice other than to forage or beg for food. “There are also disturbing reports of commanders...forcing [soldiers] into prostitution.” Meanwhile,

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163 Ibid., 137.
164 Ibid., 136-137.
168 Ibid.
[a]rms and ammunition disappear, perhaps to hunters, or gangsters or terrorist, but no-one knows. Fuel, spare parts and vehicles can be bought…Vital parts of weapons are sold for the precious metals they contain.‖

What is worse is that the Ministry of Defense and senior officials know that these abuses take place and do little if anything to punish the perpetrators or stop it from continuing.

In April 2002, the Minister of Defense, visiting 20 Guards Army in the Moscow Military District, described the volume of theft there as ‘simply impermissible’, which raises the intriguing possibility that the ministry recognizes an acceptable level of theft.  

Another alternative the Russian leadership has undertaken to help fill the ranks is to ease the restrictions regarding the recruitment of foreign citizen. “According to the amended law, a citizen of any foreign country, aged 18-30, can now sign an initial 5-year contract to join the army.” However, there are no plans at this time to fill the officer ranks with foreign nationals. As an incentive, recruits are offered Russian citizenship after three years of service. However, this policy is not expected to make a substantial difference in the Russian recruitment shortfall.

The recruitment situation in Russian is only going to get worse as time goes by unless substantial improvements and reforms take place. According to Colonel Alexei Knyazev, the officer in charge of the army draft, as many as 133,000 young men are

171 Ibid., 138.
174 “Russia Military Looks to Recruit More Foreigners.”
evading the draft as of September 2010.\textsuperscript{175} Meanwhile, as many as 25-30 percent of conscripts were considered unfit for military service in 2007.\textsuperscript{176} In 2009, President Dimitri Medvedev announced that this number had increased to 40 percent.\textsuperscript{177} Igor Bykov, head of the defense ministry’s medical department, reported that “mental, musculoskeletal and drug-related illnesses, as well as TB and AIDS, topped the list of diseases that make young men unfit for military service.”\textsuperscript{178}

The result is that ground forces personnel have low morale, are undernourished, are forced to endure humiliation and abuse by their fellow enlisted comrades and officers, and are poorly equipped and trained. This creates ground forces that are unprepared to engage an adversary in almost any conflict without major preparation ahead of time. The exploitation of soldiers by their officers

indicates that the average Russian officer does not see his soldiers as fellow servicemen or even as fellow human beings. There is no mutual respect between leaders and led, and it is difficult to see how a professional army can be created without one.\textsuperscript{179} 

As a result, the “Russian armed forces are rapidly losing the \textit{esprit de corps} or military ethos which makes a military organization an effective fighting force (and politically reliable).”\textsuperscript{180} If concrete action is not taken to alleviate these problems in the ranks, then


\textsuperscript{177} “Russia Faces Shortage Of Conscripts This Year.”

\textsuperscript{178} “Quarter of Russian Conscripts Unfit for Service - Official.”


\textsuperscript{180} Ibid., 135.
Russia’s ground forces will be nothing more than mobs with guns leaving the Russian Federation vulnerable to outside attack.

Equipment

Equipment is also a major problem that plagues ground forces. Most of the equipment currently available was inherited from the Soviet Union or is based on Soviet design. Funding for even minimum maintenance of current weapons inventories is often lagging, resulting in tanks, vehicles, communications equipment, and a multitude of other items that simply do not work or easily break down. As mentioned, corrupt officials are not above selling spare parts and parts made with precious metals for a quick profit. Modern replacements are slow to arrive, assuming any are even planned. “According to some reports [as of 2007], only about 10 to 20 percent of all weapons in the inventories [of the Russian armed forces, not just ground forces] are modern.” Army-General Makarov stated that, “Russia plans to modernize 30 percent of its weapon systems by 2012, and 70 percent by 2020,” but the likelihood of achieving this goal is questionable. Funding for upgrading existing equipment and producing new weapons are in short supply. “For example, between 2000 and 2004 the Russian army added only 15 new

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tanks to its inventory of about 23,000.” While the delivery of new equipment has improved since 2006, there is still little to show for it.\textsuperscript{185}

In 2008, 50 new T-90 tanks were delivered to two battalions.\textsuperscript{186} The T-90, the most modern tank in the RF’s arsenal, has been in production since 1995 yet still only constitutes 1.5 percent of the total tank fleet.\textsuperscript{187} However, in reality the T-90 is nothing more than a modification of the Soviet T-72 tank which entered production in 1971 but costs 118 million rubles or $4 million per unit.\textsuperscript{188} Even the achievement of deploying new equipment, if only in limited numbers, is often tainted as well. During a session of the Defense and Security Committee of the upper house of the Russian parliament, Ground Forces Chief Colonel-General (three stars) Alexander Postnikov stated,

The weapon models that are manufactured by our industry, including armor, artillery and small arms and light weapons, fail to meet the standards that exist in NATO and even China.\textsuperscript{189}

Specifically, he said that it would be easier to purchase three Leopards, Germany’s main battle tank, for the cost a single T-90.\textsuperscript{190} The inability of the RF to provide its soldiers with the necessary equipment to allow them to perform their duties, or the funding

\textsuperscript{184} Milan V. Vego, “Russia and the Return of Geopolitics,” 12.\textsuperscript{185} Vego, 12.

\textsuperscript{186} Ibid.

\textsuperscript{187} Ibid.


\textsuperscript{189} Ibid.

\textsuperscript{190} Ibid.
needed to maintain their current equipment does not instill confidence, or loyalty for that matter, in the average soldier’s mind.

Communications

Communications was one issue that seriously impaired ground forces’ ability to perform their duties during the Georgian conflict.

Communication systems and electronic warfare assets employed by commanders and frontline forces were obsolete....The 58th Army commander, Lieutenant-General Anatoliy Khrulev, was reported to have communicated with his forces in the midst of combat via a satellite phone borrowed from a journalist, since communication between units was unavailable.\(^{191}\)

The difficulty in communications prevented space-based and electronic intelligence from being passed on to leaders about the buildup of Georgian troops prior to the conflict.\(^{192}\)

Meanwhile,

maritime and topographic maps provided conflicting data…[and]…[s]atellite-targeting support to artillery was woefully absent, thereby prevented the use of precision-guided munitions and the accurate adjustment of artillery fire.

The result was that ground troops were forced to use 1960s optical equipment to target conventional weapons systems.\(^{193}\) At the time of the conflict, the Russian Federation’s independent global positioning system, GLONASS, was not yet operation due to a “subcritical number of satellites in orbit and the ground units lacked receivers”\(^{194}\) which

\(^{191}\) Roger N. McDermott, “Russia’s Conventional Armed Forces and the Georgian War,” 70.

\(^{192}\) Ibid.

\(^{193}\) Ibid.

\(^{194}\) Carolina Vendil Pallin and Fredrik Westerlund, “Russia’s War in Georgia: Lessons and Consequences,” 411.
forced the Russian Army to go into combat using World War II era compasses and maps for guidance.\textsuperscript{195}

Finally, it is also believed that the lack of inter-unit communications is what contributed to the high number of “friendly-fire” incidents. Currently there is no interoperable communications system, unlike in most advanced militaries, which allows for integrated communications between “tank, motorized-rifle, helicopter, attack-plane, and tactical-bombers units.”\textsuperscript{196} This was a lesson learned by the United States during the invasion of Grenada in 1983 when marines on the island could not communicate with ships off the coast to call in air support. Yet there are still no plans to resolve this problem within the Russian military. Lack of even basic interoperable communications speaks poorly of the abilities of the Russian military. If the Georgian conflict had lasted longer than five days, casualties simply due to a lack of communication could have been substantially higher.

\section*{Ground Forces’ Performance in Georgia}

There were several other miscellaneous mistakes and failures as the Russian Army went into combat against Georgia in August of 2008, several of which will be explored below. First, the tanks and vehicles with which the Russian Army went into combat were in some cases useless. Russian soldier preferred to ride \textit{on} their armored personnel carriers and tanks rather than \textit{in} them because they “could not resist anti-tank

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rockets or mines or small caliber armour piercing ammunition.” Also, the reactive armor canisters of 58th Army’s T-72 tanks, those meant to “deflect high-explosive anti-tanks (HEAT) weapons” were empty. This rendered the reactive armor useless and anyone caught inside the tanks, should they be struck, dead. The 58th Army left numerous vehicles by the roadside on its drive into Georgia because many of them simply broke down. These breakdowns caused traffic jams that would have made easy targets had the Georgia Air Force been able to strafe them. Most of the 58th Army’s tanks, “60 to 75 percent…deployed to the theater of operation were older T-62 and T-72Ms,” tanks designed and built in the 1960s and 1970s. Even the modern T-72BM, introduced in 2006, “could not withstand Georgian antitank warheads.” In addition, older tanks not only lacked GPS but also thermal imagers and IFF systems. Moreover, the armored columns included BMP-1 and BMD-1 (infantry personnel carrier) with “primitive” sights and vision equipment.

Friendly fire incidents were not only due to communications equipment failure, but also due to the unprofessional nature of Russian troops, which were often not “equipped according to official regulations.” Russian soldiers tend to choose

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198 Nikita Petrov, “Russian Army’s weaknesses exposed during war in Georgia.”
199 Roger N. McDermott, “Russia’s Conventional Armed Forces and the Georgian War,” 71. McDermott,
71.
200 Ibid., 72.
201 Carolina Vendil Pallin and Fredrik Westerlund, “Russia’s War in Georgia: Lessons and Consequences,”
410.
203 Ibid.
204 Ibid.
personal equipment themselves, with the result that Russian troops in Georgia looked more like partisans, which also accounted for why they were reduced to using armlets to identify themselves, and that it was possible to distinguish commanding officers at a far distance.\textsuperscript{206}

The lack of IFF systems in Russian vehicle and tanks increased the probability of friendly-fire incidents because their Georgian adversary was fielding Soviet-era vehicles similar or identical to what the Russians had deployed.\textsuperscript{207} Meanwhile, the absence of more advanced imaging equipment, such as thermal- and night-vision equipment amongst Russian troops allowed for Georgian forces to regain ground at night lost during the day which may have also prolonged the conflict and increased Russian casualties.\textsuperscript{208}

Based on the information above, one overarching conclusion can be reached about the status of the Russian ground forces: they are seriously unprepared. The Russian military is still organized and prepared to fight mass warfare as it did against Nazi Germany. Military forces today must be smaller, faster, and more sophisticated than in the past, yet the Russian ground forces continue to remain a pre-computer age fighting force ready to lead a mass charge.\textsuperscript{209} The pervasive culture of abuse and corruption, lack of accountability, appropriate funding and oversight, low morale, and Russian youths’ desire to avoid service at all costs has created a largely inefficient ground force that will not be able to engage effectively in future conflicts. Russia’s “victory” against Georgia

\textsuperscript{205} Carolina Vendil Pallin and Fredrik Westerlund, “Russia’s War in Georgia: Lessons and Consequences,” 413.

\textsuperscript{206} Ibid.

\textsuperscript{207} Ibid., 411.

\textsuperscript{208} Ibid.

\textsuperscript{209} Pavel Baev, “Neither Reform Nor Modernisation: The Armed Forces Under and After Putin’s Command,” 87.
had more to do with the relative size of the clashing militaries and Georgian military mistakes, than the superior ability of Russian conventional forces. Unless drastic and forceful military modernization and reform takes places, Russia’s ground forces will fail in their responsibility to defend the Russian Federation.

Air Force

The Russian Air Force (VVS) is not immune to the personnel and equipment problems faced by the ground forces. Just as with the ground forces equipment, the air force inventory is aging as replacements and appropriate funding for maintenance, repairs, and upgrades are few and far between. Most of the fighters and technology was also developed by the Soviet Union or is based on Soviet design. Lack of adequate preventative maintenance and training has led to increases in accidents and crashes as the VVS tries to fly aircraft beyond their service expiration dates.

The last few years have seen a string of accidents that only emphasizes the deficiencies within the VVS. In March 2007 two MiG-29s collided which led to the replacement of the Chief of Staff of the Air Force;…in January 2008 a trainer aircraft, an L-39, was lost as well; in March of the same year an Su-25 exploded and a Su-27 crash landed; in October a MiG-29 broke down in mid-air; and finally in December another MiG-29 disintegrated. After that final MiG-29 crash, the entire MiG-29 fighter fleet was grounded.

210 Ibid., 85.

Following a Mig-29 crash in East Siberia last December, the Defense Ministry admitted for the first time that Russia’s Mig-29 fleet was mostly outdated and not capable of performing combat duties.212

As many as 70 percent of the MiG-29s in service are too old to take to the skies and only “30% of the Mig-29s were allowed to resume flights after a month-long suspension.”213 A possible cause of the crash was corrosion on the tail unit which was discovered after an inspection of all aircraft of this type was performed.214

Meanwhile, the low number of training hours logged by pilots is becoming a major problem. As of 2007, the “number of flight hours [was] far below standard levels: it ranges from 20 to 25 hours annually for fighter aviation to 60 hours annually for transport aviation.”215 Also, better qualified pilots are given priority in flying time, leaving second- and third-class pilots barely able to maintain their qualifications, let alone advance to the next level. This is a disturbing trend in pilot training especially since “first-class pilots today represent 40 per cent of the total number of pilots in air regiments, and on average they are only a few years away from the retirement age for pilots of 45.”216 During the Georgian conflict, five Russian aircraft were shot down during the first day: three Su-25 tactical bombers, one Su-24MR reconnaissance aircraft,

212 Ibid.
213 Ibid.
214 Ibid.
and one Tu-22M3 long-range bomber\textsuperscript{217} “proving that pilots could not perform even
simple combat mission efficiently.”\textsuperscript{218} Ironically, the pilots that
took part in the air assault were most likely some of the most experienced Russian pilots, belonging to ground attack regiments with extensive experience from air operations in Chechnya….The losses indicate that even within these units there are deficiencies in pilot training and the technical level of the aircraft.\textsuperscript{219}

Total Russian losses during the war may have exceeded 10 aircraft with at least another
two attributed to Georgian units, one friendly-fire incident, and one aircraft damaged beyond repair.\textsuperscript{220}

The most glaring failure of the Russian Air Force during the Georgian conflict
was its inability to establish air superiority throughout the entire conflict. The Georgian Air Force consisted of only a dozen Su-25 attack aircraft, yet was able to execute attack missions on Russian units until the last day of the conflict.\textsuperscript{221} The VVS also conducted “no suppression of enemy air defenses (SEAD) operations” which may have been a reflection of the fact that, just as with ground forces, the VVS lacks night-fighting capabilities.\textsuperscript{222}

On the eve of the [Georgian] campaign the VVS had no around-the-clock SEAD capabilities, which meant Russia did not possess the option of mounting an air

\begin{footnotesize}
\textsuperscript{217} Carolina Vendil Pallin and Fredrik Westerlund, “Russia’s War in Georgia: Lessons and Consequences,” 408.

\textsuperscript{218} Pavel Baev, “Neither Reform Nor Modernisation: The Armed Forces Under and After Putin’s Command,” 85.

\textsuperscript{219} Carolina Vendil Pallin and Fredrik Westerlund, “Russia’s War in Georgia: Lessons and Consequences,” 408.

\textsuperscript{220} Ibid.

\textsuperscript{221} Ibid.

\textsuperscript{222} Roger N. McDermott, “Russia’s Conventional Armed Forces and the Georgian War,” 72.
\end{footnotesize}
campaign such as those executed by the United States in the 1991 Gulf War, Afghanistan in 2001, or Iraq in 2003.\textsuperscript{223}

Therefore, the VVS was unable to do in 2008 what was effectively demonstrated by the United States almost twenty years ago.

The combat capabilities of helicopter units fared no better than that of fighter units during the Georgian conflict. This was demonstrated by the fact that ground units received little to no close air support during the conflict leaving them vulnerable to ambush.\textsuperscript{224} One possible reason for this was due to the shortage of forward air controllers in South Ossetia that would have been able to direct attack aircraft and helicopters and the fact that ground units were unable to communicate with air elements due to incompatible radio systems.\textsuperscript{225}

The VVS also chose, for whatever reason, to employ its precision-guided weapons sparingly. “The Russian air force appears to…[lack] the training and weapon systems needed for high precision strikes in situations of low visibility.”\textsuperscript{226} The current arsenal of the VVS precision-guided weapons have a range of 12 kilometers and required that pilots fly on a straight course before and after launch, exposing the aircraft to enemy air defense.\textsuperscript{227} Georgian meteorological conditions during the war consisted of recurrent cloudiness and a low cloud base, [which] restricted the use of laser and TV guided weapons, which make up the bulk of the guided weapons in the Russian arsenal.\textsuperscript{228}

\begin{itemize}
\item\textsuperscript{223} Ibid.
\item\textsuperscript{224} Carolina Vendil Pallin and Fredrik Westerlund, “Russia’s War in Georgia: Lessons and Consequences,” 409.
\item\textsuperscript{225} Ibid., 408.
\item\textsuperscript{226} Ibid., 409.
\item\textsuperscript{227} Ibid.
\item\textsuperscript{228} Ibid.
\end{itemize}
Therefore, the VVS depended more on unguided bombs and air-to-surface rockets which lowered the accuracy of strikes and exposed fighter aircraft to increased risk as unguided weapons require shorter launch distances and therefore greater exposure to enemy air defense.\textsuperscript{229} This required more sorties to destroy a single target which also increased exposure to enemy fire.\textsuperscript{230} For this reason, it made sense for the VVS to employ strategic long-range bombers because they could drop unguided munitions from altitudes beyond what many air defense systems can reach.\textsuperscript{231} These vulnerabilities of the VVS underscored the fact that the Russian air force obviously lacked suitable standoff weapons. Cruise missiles with a conventional warhead have been part of the Russian air force inventory for some years, albeit in small numbers, and the Tu-22M3 bombers can carry such weapons. However, there are no indications of air-launched cruise missiles having been used in the Five-Day War, which puts the air force capability to precision strikes over longer distances into question.\textsuperscript{51} It also implies that Russia cannot conduct air strikes from a safe distance even in a local war close to its own borders; Russian pilots have to enter enemy air space when carrying out air raids and this exposes them to enemy fire. Moreover, the Russian air units were forced to carry out missions mainly in daylight, since many aircraft lacked night-vision equipment. This was not the case with the modernized Georgian Su-25 aircrafts, which were able to operate at night.\textsuperscript{52} Also, the Russian air force almost completely lacked the ability to wage electronic warfare, which could have contributed to suppressing the Georgian air defence.\textsuperscript{232}

Finally, the Russian bomber fleet, Tu-95 “Bear” and Tu-160 “Blackjack,” while primarily designed as strategic bomber vehicles, are also able to carry conventional munitions. Emphasis on these aircraft has increased as the Russian Federation has resumed long-range patrols under Vladimir Putin; however, they are also suffering from

\textsuperscript{229} Ibid.

\textsuperscript{230} Ibid.

\textsuperscript{231} Ibid.

\textsuperscript{232} Ibid.
limited maintenance and there are currently no new replacement aircraft in production and the newest plan for a new strategic bomber has been put off. The Tu-95 in particular is a turboprop bomber based on 1950s technology. While the technology in both bombers has proven itself to be relatively reliable, these aircraft can only be flown so far past their service lifetimes.

The Bears and Blackjacks also suffer from several unique characteristics that will only decrease their future reliability. First, the engines for both bombers are no longer in production and require extensive maintenance to ensure their continued function.²³³

The service life of the Kuznetsov NK-32 turbofan engines (Tu-160) has now been extended to 21 years, and of the Kuznetsov NK-12MP turboprop engines (Tu-95MS) to 24 years. Analysis of the repair contracts announced by the MoD [Ministry of Defense] suggests that the engines are a much bigger headache than the rest of the planes.²³⁴

Second, the integral tanks of both bombers (the internal tank that carries the bomber’s fuel) have developed cracks that must either be repaired or replaced, and the corrosion or structural damage of the wings on the bombers have also become issues of concern.²³⁵ Maintenance, repairs, and reinforcements will help to keep these aircraft in the air, but each additional service extension places their aircrews at increased risk. There have already been two major accidents, one in “2002 [when] one of the engines of a Tu-95MS bomber belonging to the 184th TBAP [caught] fire in mid-flight, but the crew managed to land the plane at its home airfield.”²³⁶ Another accident in 2003 involving a Tu-160 made


²³⁴ Ibid.

²³⁵ Ibid.

²³⁶ Ibid.
in 1992 which crashed and killed its entire crew when the main integral tank disintegrated.\textsuperscript{237} The loss of even a single Tu-160 places an increased strain on this bomber fleet as there are only sixteen remaining in the Russian inventory. Meanwhile, there is more flexibility with the Tu-95s, of which there are approximately 60.

Finally, the aircrews of long-range bombers are at particular risk due to the nature of their mission. Their long-range flights often take them far from Russian territory and eliminate any hope of successful search-and-rescue operation should an accident occur abroad. The loss of these aircraft and their crews will decrease Russian bomber capability. Aircrews of these bombers already complain about the lack of enough rescue suits available on each bomber.\textsuperscript{238} Even with enough rescue equipment on board, aircrews know that their chance of survival is almost zero.

When Soviet planes (including Tu-95 and An-22 [strategic airlifter] aircraft) went down somewhere far out in the ocean, their crews were always lost. The latest incident involved a Tu-142MZ long-range anti-submarine aircraft of the Pacific Fleet Aviation, which was lost in the Tatar Strait in November 2009, only 20km away from the shore. None of its 11 crew members survived. The Tu-142MZ model has the same airframe and engines as the Tu-95MS bomber. Even if the crew (four people for Tu-160 and seven for Tu-95MS) survive the actual crash somewhere far in the Arctic, Atlantic or Pacific Oceans, they cannot expect swift rescue by the Russian Air Force or Navy. These services have never had the technical means or the overall capability to pull off such a rescue.\textsuperscript{239}

While there is no indication of overt dissent or demand for change in conditions among bomber aircrews, this is definitely a factor that the Russian leadership will have to take

\textsuperscript{237} Ibid.

\textsuperscript{238} Ibid.

\textsuperscript{239} Ibid.
into account if they wish to continue flying the strategic bomber fleet with such frequency far from the Russian mainland.

All these facts call attention to the precarious status that the Russian Air Force finds itself in. The Georgian conflict in particular drew attention to the VVS’s inability to suppress or destroy Georgian air defenses, defeat the Georgian Air Force; or effectively defend their aircraft from attack. In addition, the VVS did not possess the ability to provide close combat support or communicate with its ground troops. Finally, the arsenal of the VVS prevented its pilots from effectively targeting enemy positions due to the vulnerability of employing guided munitions and the inefficiency of employing unguided munitions. The United States has demonstrated the superiority of air power on numerous occasions since 1991. Air power is often the key to victory in major conflicts and during the Georgian War the Russian military demonstrated that its air force possesses many weaknesses. The atrophy it suffered during the 1990s in terms of equipment degradation, pilot training, and development and deployment of new vehicles has severely limited the capability of this military branch. Without a major investment in procurement for aircraft, armaments, and training the VVS will continue to remain unable to fulfill its functions properly.

Navy

The Russian Federation continues to maintain a naval presence even in the face of severe underfunding. In comparison to the ground forces and air force, the loss of funding

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240 Carolina Vendil Pallin and Fredrik Westerlund, “Russia’s War in Georgia: Lessons and Consequences,” 409. Moreover, the Georgian air defence radar units were operational, albeit with obvious limitations, several days into the war, which implies that the Russian air force for some reason did not use its Kh-28 and Kh-58 anti-radiation missiles.
during the 1990s hurt the Russian Navy (VMF) the hardest due to the complex nature of
the equipment, its sensitivity to degradation, and the longer time necessary to rehabilitate
it.\textsuperscript{241} The neglect and disrepair of the 1990s allowed “ships to rust and technical expertise,
institutional knowledge and naval traditions to erode.”\textsuperscript{242} Weak Russian shipbuilding
capacity and delays in ship construction and funding have resulted in an increasingly
aging Russian fleet in all classes and will make it time consuming to increase the VMF’s
numbers.\textsuperscript{243} The same as with air and ground forces, most of the equipment in the VMF’s
inventory was either built by the Soviet Union or is based on its design. It was only in
2007 with the \textit{Steregushchiy}-class corvette, that the very first Russian ship was
commissioned that was designed and built from the ground up since the collapse of the
Soviet Union.\textsuperscript{244} Even so, the quality of new warships is in question due to the fact that
“Russia’s shipyards were not just quiet for a decade — they spiraled into decay.”\textsuperscript{245}

The nature of Russian Navy’s geographic areas of responsibility only makes it
harder to fulfill its mission. Russia’s naval forces are posted in five major regions: the
Barents, the Baltic, the Black, and the Caspian Seas, and the Pacific Ocean. Furthermore,
with global warming, increased economic opportunities for resource exploitation, and
the corresponding competition in the Arctic, the Northern Fleet in the Barents may need to be

\textsuperscript{241} Pavel Baev, “Neither Reform Nor Modernisation: The Armed Forces Under and After Putin’s
Command,” 82.

\textsuperscript{242} “Russia: Trials of the Russian Fleet,” Stratfor: Global Intelligence, January 7, 2009,

\textsuperscript{243} Pavel Baev, “Neither Reform Nor Modernisation: The Armed Forces Under and After Putin’s
Command,” 84.

\textsuperscript{244} “Russia: Future Naval Prospects,” Stratfor: Global Intelligence, December 7, 2007,

\textsuperscript{245} Ibid.
expanded or a separate Arctic force may be under consideration. Each of these areas is important in its own way and geographically isolated from one another.\textsuperscript{246} Reinforcing one fleet with assets from another is extremely time consuming or impossible as in the case of the Caspian flotilla. The Black and Baltic Sea Fleets are boxed in as well since any ship would have to pass narrow choke points to reach their destinations. The Baltic Fleet would have to navigate around the islands of Denmark to access the Atlantic. Meanwhile, any ship in the Black Sea Fleet seeking to reach the Atlantic would have to navigate the Bosphorus Straits and the Dardanelles, and later on the Straits of Gibraltar to exit the Mediterranean. All four of these pose navigational choke points limiting the movement of vessels in and out of these two seas that, in the event of a conflict, could be closed to Russian naval vessels.

While the Russian Navy has undertaken some limited operations, it is difficult to gauge the effectiveness of Russian warships, submarines, and sailors. Participation in the UN sanctioned Somali anti-piracy operation\textsuperscript{247} and the Georgian conflict demonstrate that the Russian Navy is not totally crippled, however these naval operations tend to be the exception rather than the rule. In January of 2009, only five warships out of the entire Russian Fleet (not including auxiliaries) were deployed abroad.\textsuperscript{248} During the Georgian conflict, the VMF played a limited role seeing as Georgia possessed a limited naval presence and most of the fighting took place far from the Black Sea’s coast.

\begin{footnotesize}
\textsuperscript{246} Ibid.
\textsuperscript{247} “Russia: Trials of the Russian Fleet.”
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One of the few specific indicators about the Russian Navy available is Russian shipbuilding capacity. While a few ships and submarines have been constructed or completed since the collapse of the Soviet Union, Russian shipbuilding capability has severely diminished as highlighted by the recent decision by the Russian military to purchase four French designed Mistral-class amphibious assault ships. Two will be built on French territory and two on Russian with each consecutive ship being built increasingly using Russian labor. Ideally, this should allow for Russian workers to gain the necessary construction skills and abilities that can be later transferred to domestic warship construction. In addition, as proof that the Russian shipbuilding industry lacks the capability to produce such advanced warships is the announcement by the Russian government that a new shipyard will be constructed in St. Petersburg for the express purpose of constructing the latter two Mistrals.

Without further detailed evidence it is difficult to reach any specific conclusions concerning the effectiveness of the Russian Navy. However, it may be the lack of evidence that can provide a more general assessment of Russian naval capability. The few number of naval patrols conducted every year; the slow construction rates and additions of new warships to the Russian fleets; and the low budgetary priority of the VMF, especially during the 1990s, can lead one to assume that the capabilities of the Russian navy have severely atrophied and will take time to rebuild assuming proper funding allocation.

249 “Russia to Define Mistral Purchase Scheme - Navy.”


Conventional Needs

Despite the benefits of nuclear weapons and even assuming that the Russian Federation was willing to broaden the conditions under which they would be employed, the priority of Russian military reform over the last decade has consistently focused on reform and modernization of its conventional military forces. Russia’s leaders realize that nuclear weapons are currently limited to a few select and specific missions. Although these are very important missions, the chance of their use is very low in the current global environment. Russia’s leaders realize that conventional forces provide a strong measure of flexible response. Therefore, while Russian reliance on nuclear weapons will increase as time goes by, this does not mean that Russia’s leaders have decided to abandon conventional capability.

The Russian leadership has unveiled several reform programs over the years that have targeted all three conventional military branches. These reforms have called for major downsizing of military forces, elimination of conscription and professionalization of forces, and the introduction of modern weapons to reflect the changes in modern technology in the post-Cold War era. In a March 5, 2010 speech to the Defense Ministry Collegium, President Medvedev called for “renewing arms and equipment at a rate of 9 to 11 percent per year for the next decade, in order to reach a target of modernizing 70 percent of the military equipment by 2020.” The likelihood of achieving this goal will be difficult as the current rate of renewal is less than two percent and even the Soviet

Union averaged only a 5 to 7 percent rate during the 1980s. In order to achieve this goal, the Defense Ministry has put together a new modernization plan titled the State Armaments Program (SAP) 2020 which outlines procurement priorities for the next decade from 2011 through 2020. However, the SAP has not been publicly released (and probably will not be) and any information available is based on public statements or data leaked to the public.

State Armaments Modernization Program

The budget for this armaments program is listed as 20 trillion rubles ($650.56 billion) and almost a quarter, 4.7 trillion rubles ($150.7 billion), is allocated for naval modernization. This modernization plan is “three times more than is allocated in the existing 2007-2015 program.” One third of the funding is expected to be provided by 2015. Part of the reason for such a large budget is the Russian government’s recognition of graft, corruption, and mismanagement within defense procurement. “Various press reports estimate that as much as half of all procurement money is spent on bribes and other forms of corruption.” Therefore, it is necessary to provide more funding to overcome the money that “disappears” due to these causes. The ability to fund

253 Ibid.


255 Ibid.


257 Dmitry Gorenburg, “Policy Memo No. 125,” 5.
this program in its totality assumes that government revenues from oil, natural gas, and other natural resources will continue which is not guaranteed considering the volatility of these markets. Overall, SAP 2020 is a very ambitious armaments program and if successful would go a long way toward modernizing Russian forces and improving the technical quality of its military equipment. This is critically important due to the obsolete nature of much of the equipment, in many cases its poor quality, and use past official service life.

All three conventional military branches are slated to receive new equipment. The Air Force is expected to be the main beneficiary of this new armaments program with the navy and ground forces considered lesser priorities.\textsuperscript{258}

The Ministry of Defense believes it can modernize all of the country’s military aircraft over the next ten years. The goal is to purchase 350 new fighter airplanes, 1,000 new helicopters, and a number of new transport aircraft. This is a high priority as most of the existing aircraft have reached or exceeded their original lifespan.\textsuperscript{259}

Specific air force procurement plans include the purchase of a total of 50 to 60 T-50 fifth-generation fighter aircraft. This fighter aircraft is the Russian Federation’s response to the United State’s development of the F-22 Raptor, a next generation air superiority fighter. In addition, the VVS would procure

- Su-35BM fourth-generation fighter aircraft. Forty-eight to be purchased in 2010-2015.
- Su-34 fighter-bomber. Thirty-two to be purchased in 2010-2015.
- MiG-35 fighter. Currently in development. First units expected to enter the air force in 2013.
- Yak-130 training aircraft. One hundred fifty to be delivered in 2010-2015. An additional fifty to be procured in 2016-2020.

\textsuperscript{258} Ibid., 2.

\textsuperscript{259} Ibid.
• An-70 transport aircraft. Sixty to be purchased in 2011-2020.
• Mi-26 transport helicopters. Exact number unknown. Main focus of helicopter renewal program.

Russian air defenses are also expected to receive new equipment with the purchase of additional S-400 air defense systems. “The goal is to have as many as 23 regiments (of 8 to 12 missiles each) by 2015.” The S-400 will be supported with S-500 systems currently under development and expected to be ready for production by 2013. Both the S-400 and S-500 systems are superior to the U.S. Patriot PAC-3 in maximum speed, range, and accuracy.

Meanwhile, at least officially, the Russian Navy is expected to see a vast increase in the number of new ships in its fleet. This includes the beefing up of Russian conventional submarine capability to include two to five new Yasen-class multi-purpose attack submarines, two to seven Lada-class diesel submarines, and potentially several additional Kilo-class submarines. The number of surface combat ships the Russian military intends to add to its fleet is extremely ambitious. No less than 30 new ships that include destroyers, corvettes, landing craft, aircraft carriers, the Mistral-class helicopter assault ship, and two classes of frigates. Besides these new construction projects, the

\[260\] Ibid.
\[261\] Ibid., 3.
\[262\] Ibid.
\[263\] Ibid.
\[264\] Ibid., 4.
SAP outlines the intent to refit and modernize several previously mothballed Kirov- and Slava-class cruisers.\textsuperscript{265}

Much less is known regarding modernization plans for the ground forces under the SAP, however, it is expected to receive the least amount of funding. It is known that “the military has canceled plans to procure the T-95 battle tank and will instead continue to purchase T-90 tanks for the foreseeable future.”\textsuperscript{266} Some other additional equipment may be purchased but what kind and how much is unclear. However, the Russian military will focus on improving its communications capabilities by upgrading its GLONASS satellite system and procuring new digital communications and command and control systems, as well as other high-tech items such as night vision equipment and better IFF (Identify Friend or Foe) systems. Many of these items are likely to be procured abroad or developed with foreign assistance.\textsuperscript{267}

The decision to invest in this kind of equipment can be clearly traced back to the problems faced by Russian ground forces during the Georgian campaign and can be seen as a reflection of lessons learned.

Nuclear forces have not been ignored by the SAP modernization program and there are several new acquisitions expected to occur along with conventional procurement. First, the navy is expected to construct a total of eight Borey-class SSBNs by 2015.\textsuperscript{268} The Yuri Dolgoruky, the first Borey of in this class, is already completed and

\textsuperscript{265} Ibid.

\textsuperscript{266} Ibid., 5.

\textsuperscript{267} Ibid.

undergoing sea trials and another three are in various stages of construction.\textsuperscript{269} However, the continued problems with the Bulava SLBM may delay further construction of the Borey since it was designed specifically to accommodate it. While the Bulava may seem too big to fail, if further testing of the missile continues to leave the Navy uncertain about its reliability, then further Borey construction may have to be halted. In essence, the Borey and Bulava are a package deal and the Navy will not accept one without the other.

The SAP did include a provision for a next-generation long-range bomber, but on February 24, 2011, First Deputy Defense Minister Vladimir Popovkin, head of procurement, announced that it would push back the development of a new bomber to a later date and continue to depend on the Tu-95 Bears and Tu-160 Blackjacks. The Bears and Blackjacks are expected to remain in service until 2030. As a concession for delaying a new bomber, the current Bear and Blackjack fleet is expected to be refit and modernized with new avionics and equipment.\textsuperscript{270} Finally, the Strategic Missile Forces will continue along their current modernization program which includes the continued retirement of SS-18 and SS-19 ICBMs and their replacement with new Topol-M (SS-27s) and RS-24 Yars ICBMs.\textsuperscript{271}

Despite these grand modernization goals, it should be noted that this procurement plan targets only the equipment and not the soldiers, sailors, and airmen who will be operating it. There is currently no known comprehensive training and education plan outlined for Russian military personnel and equipment is only as good as those who


\textsuperscript{271} Dmitry Gorenburg, “Policy Memo No. 125,” 3.
operate it. Even the most advanced weaponry can be ineffective or useless if soldiers or sailors are insufficiently educated and trained on how to use it properly, and integrate it with other systems and other military branches. Therefore, even if the Russian military is able to reach its goal of 70% modern equipment by 2020 it does not mean that the equipment will be employed to its fullest potential. This will be a major problem as sufficient training funds are still difficult to obtain and conscripts will have a year or less in which to train on their equipment. Also, the quality of education that conscripts enter with has been steadily decreasing while the technical know-how necessary to operate new equipment has been on the rise.

As the SAP will not be released to the public, it is difficult to know how accurate the procurement and construction objectives listed above are. The types of vehicles and numbers listed above are not complete and may be subject to change. In addition, the goals outlined in the SAP are very ambitious and should not be taken at face value. One can assume that there may be a classified, more conservative, SAP internal document that reflects more achievable, realistic, and sustainable goals.

The likely existence of such a document is best highlighted by the goals for naval modernization. These goals in particular appear to be wildly optimistic about Russian construction capabilities considering the current status and slow pace of the shipbuilding industry in Russia. As stated, warships are complex, expensive, time consuming construction projects and this is compounded by the fact that the Russian shipbuilding industry suffers from graft, corruption, a lack of skilled workmen, weak shipyard infrastructure, and requires long construction rates.
The idea that the Russian shipbuilding industry could produce ten *Admiral Gorshkov*-class frigates, several *Krivak IV*-class frigates, ten *Steregushchii*-class corvettes, and another five to ten destroyers all by 2020 is highly doubtful. This does not even include the official SAP’s reference to the construction of at least three aircraft carriers, although a specific time table is no included for their commissioning. If these goals are even half true, then they assume a substantial improvement in Russian warship construction capabilities that at this time do not appear to exist. Either these stated goals are purely for domestic and foreign propaganda purposes and the Russian leadership has a more realistic outlook on its abilities, or they assume they can overcome these shortcomings with enough political pressure and money. The only other explanation is that Russia’s leaders fail to grasp the reality of the obstacles facing the military industry which is difficult to believe with both the Borey and Bulava standing out as prime examples of the industry’s weaknesses.

Regardless of whether or not one assumes that the procurement goals in the SAP are real, there will still be a corresponding increase in reliance on nuclear weapons. If the goals are real and achieved by 2020, questions regarding the quality and capabilities of the equipment and appropriate training will still remain as major issues. If the goals are not real or fail to be achieved by 2020 then there will continue to remain a shortage of new equipment and Russian conventional forces will be forced to continue to operate equipment that is obsolete, poorly maintained, and subject to failure. In either case, nuclear weapons provide the necessarily support and backup to the conventional forces to make up the difference where conventional forces fall short.
Issues with the Domestic Defense Industry

The Russian government has finally decided to take a firm stand with the defense establishment and begun to intervene more readily in their operations in an attempt to improve their performance after years of poor results. In response to corruption, incompetence and shoddy workmanship, especially in naval construction, the Kremlin has started firing people.\textsuperscript{272} In addition, the Russian government has begun reorganizing entire sectors of the defense industry under unified aegises, such as the United Aircraft Building Corp. and the United Shipbuilding Corp…[however]…[t]o what extent these efforts will succeed remains to be seen.\textsuperscript{273}

The Russian government has clearly outlined a very ambitious procurement and modernization plan and if even half of items in this document are realized it will represent a significant improvement of the Russian military, at least in respect to the relative quality of equipment compared to what they operate now. However, the Defense Ministry has proposed ambitious targets in the past and failed to reach them due to bureaucratic inertia, corruption, political in-fighting, and lack of funding. An announcement by the Audit Chamber stated that “one billion rubles of military procurement money was lost to corruption in 2009.”\textsuperscript{274} The ambitious attempt to professionalize the ground forces is another example that fell flat and is considered all but a failure.

\textsuperscript{272} “Russia: Future Naval Prospects.”

\textsuperscript{273} Ibid.

\textsuperscript{274} Dmitry Gorenburg, “Policy Memo No. 125,” 5.
Even assuming that the planned modernization was successful in reaching its target numbers for deployment of new vehicles and equipment, the quality of the equipment is also in question. Discounting the kinds of production failures characterized by the Bulava missile, quality and capability of the new “modern” Russian equipment in comparison to Western weapons will be a major concern. The Russian defense establishment all but collapsed following the break-up of the Soviet Union when defense orders dried up. Defense industry production equipment and manpower has severely atrophied over the last 20 years.

The best workers – those left over from Soviet times when the industry was well funded and a highly prestigious sector in which to work – have retired or are about to do so. Few good people went into the field in the 1990s, when there was virtually no financing and the industry came close to collapse.275 Those that the defense industry would like to recruit have all pursued more successful, higher paying positions in the private sector or abroad. This left the defense establishment unable to recruit the next generation of specialists, leaving it unprepared to meet the demand to produce the kinds of sophisticated and advanced types of weapons and technology needed for the next generation of warfare.

At the same time, because there was no money for equipment modernization, the industrial plant[s] began to deteriorate. By the start of the Putin presidency, even the allocation of additional financing was not enough to counteract the decline in the defense industry’s ability to produce high quality products. This decline will have to be reversed if the Russian military is to be successful in producing new high-tech military equipment.276 This is most likely the primary reason that the Russian government has turned to purchasing advanced weapons systems like the Mistral and UAVs abroad. Purchasing

275 Ibid., 6.
276 Ibid.
weapons systems abroad will help Russia overcome many of the problems associated with its attempts at defense modernization. Purchasing weapons designed and built by foreign defense contractors allows the Russian government to save massive amounts of time and money that would have been spent on domestic research and development, testing, and production. All that needs to be provided is the funding and the Russian military receives reliable, high-quality, high-tech weapons much faster than if they were produced domestically. In some cases, as with the Mistral, the Russian government will also be permitted to purchase the license to some of the weapons systems it acquires, allowing it to legally reverse engineer the technology and produce it domestically.

However, the Russian government realizes that each weapon procured abroad is at the expense of the domestic defense establishment. Also, there is a limit to just how advanced the technology it purchases will be, which leaves it no choice but to try and develop the technology and weapons platforms domestically. This brings Russia back to the current obstacles it faces in developing and deploying weapons and technology of sufficient capability, quality, quantity, and reliability amongst the conventional forces to ensure their ability to confront another conventionally armed foe. If they are unable to do so currently and in the near future, then once again, nuclear weapons provide an effective means of overcoming the conventional weakness. This is not to say that the SAP 2020 will fail but past attempts at reform have failed, examples like the Bulava demonstrate Russian difficulty with developing certain advanced weapons, and the problems posed by corruption are unlikely to go away any time soon. Therefore, the Russian ability to produce and deploy the necessary conventional equipment may take longer than the 2020 benchmark, leaving nuclear weapons as Russia’s only defense guarantee.
Making Up the Short Fall

The multitude of examples listed above demonstrates that each branch of Russia’s conventional forces carries with it serious deficiencies. Obsolete technology, slow production and under-deployment of modern equipment, and undertrained soldiers and sailors cannot be overcome quickly or cheaply. As equipment and personnel continue to deteriorate, the effectiveness of Russia’s conventional forces will increasingly be called into question by other nations, Russia’s allies, and Russia’s own public. The domestic defense industry’s current inability to produce the quality of weapons needed for the 21st century is also a major concern for a military still configured for mass warfare. The observed and demonstrated weaknesses and failures of Russia’s conventional forces in the Georgian War only reinforce the importance that nuclear weapons will play into Russian defense planning.

Although the Strategic Missile Forces and other two legs of the nuclear triad require modernization and upgrades as well, they constitute a much smaller overall percentage of the Russian military. A smaller investment in the nuclear triad yields a much more significant advantage in terms of deterrence, retaliation, and destructive capability. So long as modern nuclear weapons continue to exist in Russia’s arsenal, and reliable delivery vehicles for nuclear weapons are available, then the failures and deficiencies of conventional forces can be offset. The next section will explore the capabilities of the Russian nuclear triad in greater detail.
CHAPTER SEVEN: RUSSIA’S NUCLEAR TRIAD

Russian nuclear forces have fared better than conventional forces since the collapse of the Soviet Union. One reason for this was political, as the Defense Minister appointed by Yeltsin in 1997, Igor Sergeyev, was a former commander of the Strategic Missile Forces (SMF). Therefore, his favoritism toward his former branch colored his perception of Russia’s military priorities resulting in larger amounts of funding being allocated to maintaining and modernizing Russia’s nuclear forces. Another factor that contributed to the improved state of the SMF was the fact that they constituted a much smaller force in comparison to the other branches and a smaller percentage of defense spending had a more significant impact. As of 2000, defense spending on strategic forces only constituted 13 percent of the overall defense budget.  

In addition, planned reductions of nuclear weapons and forces under the START treaties allow for more funding to maintain fewer weapons and personnel. Finally, with the general perception by government and military officials within the country that Russia is militarily weak, nuclear weapons provided the kind of guarantee that would deter any would-be adversary. Therefore, there is a need to maintain the one weapon in Russia’s arsenal that was a sure means of defending the state.

Nuclear weapons possessed other qualities that made them appealing to Russia’s leaders, at least temporarily as a “stop-gap” measure until the state was able to recover.

and return investment to conventional forces. For all the destructive potential contained in even one nuclear weapon, they are relatively cheap, reliable, exist in mass quantities, possess multiple redundancies through air, sea, and land based delivery vehicles, represent a capability that can only be matched by a handful of other nations, and their SLBMs and ICBMs can strike a target anywhere in the world in less than an hour of the order to launch being given. No other weapon in the Russian arsenal can respond as quickly with such destructive power. Moreover, with proper maintenance, nuclear weapons have service lives of decades. The weapons themselves do not have morale, require salaries or benefits, and cannot mutiny. Attempting to construct a commensurate conventional force with equally destructive power and global reach would be heinously expensive and far beyond Russia’s current financial and technical capability.

In other words, nuclear weapons were viewed as [a] cost-effective alternative to more expensive and time-consuming conventional modernization. They were also seen as a response to the qualitatively and quantitatively superior conventional forces of NATO.”278

For the Russian leadership, the benefits boiled down to the fact that nuclear weapons allowed them to do more with less and this is still true today.

Finally, beyond their obvious military benefits, nuclear weapons imbue the Russian Federation with Great Power status in global affairs. Any country can have a large conventional military, but nuclear weapons allow the Russian Federation to stand apart with a select number of states with literally the power to destroy the world. With the collapse of the Soviet Union, major losses of territory and severe cuts to its military, the Russian Federation was not about to give up such a major status symbol. In fact, nuclear weapons remain Russia’s only remaining claim to superpower status other than its natural

resources and geographic size. They also allow Russia to remain relevant in international affairs by using their nuclear weapons as a bargaining chip and allow them a surefire means of maintaining the attention of other powers and preventing themselves from being marginalized in the post-Cold War era. This remains as true in 2011 as it did in 1991.

The benefits of nuclear weapons and the deficiencies of Russia’s conventional forces outlined above represent a great part of why the Russian Federation will continue to rely on nuclear weapons in the future. However, that is not to say that Russia’s nuclear weapons do not hold their own problems and inherent inefficiencies. The first and most obvious of which is that barring a global war, a direct threat to the survival of the Russian Federation, or the employment of weapons of mass destruction against Russian forces or territory, that nuclear weapons are overkill. Russia has become deeply integrated into the global economy and international affairs. As a result, its leaders must take into account how their actions and policies will be perceived by allies, trading partners, and other states and their potential response(s). Russia also views itself as a Great Power with a corresponding international responsibility signified by its status as a member of the United Nations Security Council and a nuclear power. Even the use of nuclear weapons in Russia’s “near abroad” would be counterproductive.

Leaving aside any moral and ethical aspects of a nuclear strike against Ukraine or the other neighboring republics (that have, incidentally, 25 million ethnic Russians on their territories), from a purely military point of view a nuclear option would be absurd. These states would not under any circumstances be capable of mobilizing victorious offensive conventional operations against Russia, that might justify nuclear a response. On the other hand, if Russia attacks them with conventional forces, it would be senseless to use nuclear weapons against the territory and population, which Russia hypothetically might want to occupy. In
most cases if military conflict occurs Moscow may face only guerrilla-type warfare, for which nuclear force is neither required, nor effective.\(^{279}\)

Therefore, Russia realizes that it must proceed with caution when undertaking certain actions. Employing nuclear weapons or the threat to use them in most cases will be a disproportionate use of force and will quickly isolate the Russian Federation and potentially discredit it.

For these reasons, starting with the presidency of Vladimir Putin, there has been a strong emphasis on trying to reform and modernize Russia’s conventional forces because the leadership realized that nuclear weapons are essentially useless in local or regional conflicts such as Chechnya or against Georgia. They also realized that the prevalence of these conflicts is likely to increase over time. Furthermore, since the end of the Cold War, the United States has demonstrated the effectiveness of conventional forces in Iraq, Afghanistan, and Kosovo with the development of new technologies such as UAVs and precision-guided munitions. These weapons have provided the United States with numerous conventional alternatives that have allowed it to wage war across vast distances and defeat heavily armed foes much quicker than previously believed possible. Especially with the rising threat from insurgent and terrorist groups in Russia and along its periphery, nuclear weapons do not represent a realistically viable weapon, at least not without significant political and economic repercussions. However, while the useful scope within which the use of nuclear weapons are acceptable is very narrow (i.e. survival of the Russian state/global war), it should also be remembered that those are the conditions under which nuclear weapons are the most necessary and effective.

The second major issue regarding Russia’s nuclear weapons is that, like the three conventional military forces, Russia’s nuclear forces are plagued by aging equipment and a slow rate of modernization. The Strategic Missile Forces are probably in the best shape in regards to the modernization of its arsenal simply due to their smaller size. Yet, as of 2006,

[over 80 percent of Russia’s silo-based ICBMs have exceeded their original service lives, and plans to replace them with new missiles have been stymied by failed tests and low rates of production.\textsuperscript{280}

The Russian military has been forced to extend the service life of Russia’s aging ICBMs while they decommission older models and replace them with new variants, however extensions cannot continue indefinitely.\textsuperscript{281} Older missiles are already being decommissioning faster than they can be replaced.\textsuperscript{282}

The vast majority of Russia’s land-based deliverable warheads are carried on older SS-18 “Satan” and SS-19 “Stiletto” missiles — all of which (save a reserve force of about 30 SS-19s) have already undergone sustainment programs to extend their already-surpassed intended service lives [See Figure 3].\textsuperscript{283}

In addition, as of January 2011 the Russian Defense Ministry appears to be intent to developing a new generation of heavy ICBM to ensure that they are armed with the newest nuclear weapons and avoid the need for repeated service extensions. Production rates for new missiles are still slow, less than a dozen each year, due to limited financing


\textsuperscript{281} Ibid., 47.


\textsuperscript{283} Ibid.
and long lead times necessary for design, testing, and approval.\textsuperscript{284} However, Prime Minister Putin announced in March 2011 that Russia would double ballistic missile production starting in 2013.\textsuperscript{285} Therefore, the Defense Ministry’s early action may be an attempt to get a head start on overcoming these obstacles especially when official statements maintain that many of the oldest missiles may remain in the arsenal until 2030 with current service extensions.

Sea Leg

Meanwhile, Russia’s nuclear ballistic submarines and SLBMs represent the weakest leg of the nuclear triad. “At its peak, the Soviet navy operated more than 60

\textsuperscript{284} Ibid.

SSBNs. The fleet is now one-quarter that size, and most of the boats are in poor condition.\(^\text{286}\) Russia’s strategic submarine fleet has also performed fewer deterrent patrols each year with only five in 2006 and three in 2007.\(^\text{287}\)

In comparison, the U.S. Navy conducts 50 or more such patrols annually. In the late 1980s, the Soviets conducted even more. This reversal of a slow climb from zero patrols in 2002 highlights the trouble Russia is still having with the sea-based leg of its nuclear deterrent.\(^\text{288}\)

It also reflects poorly on the quality of training that submarine crews have on ballistic missile submarines.

The symbol of Russian naval weakness is the Bulava SLBM. It is Russia’s first attempt to develop a solid-fuel SLBM and has been continuously plagued by test failures. The Bulava has been in development and testing for over a decade yet is still not ready for deployment. Since 2005, there have been fourteen test launches of the Bulava, yet more than half have been considered failures either because of partial or total failure of the missile.\(^\text{289}\) The deployment date for the Bulava has been consistently pushed back, most recently to the start of 2012, which has called into question the future of Russia’s naval deterrent. Furthermore, due to its size, the Bulava can only be carried by the new Borey-class submarine which was redesigned to solely to carry the Bulava.

Along with the Bulava, the Borey-class submarine, which will carry the Bulava, has suffered from its own setbacks. The first Borey was laid down in 1996, and as of


\(^{288}\) Ibid.

2011, although commissioned, has not yet finished sea trials and a firm date for its deployment is contingent on the acceptance of the Bulava by the Navy. The Borey and the Bulava together represent the next generation of Russia’s nuclear naval triad. Due to the fact that both systems have been designed for each other, the importance of each project is magnified. There are currently no other SSBNs or SLBMs in development. Both projects must be successful if the Russian Federation hopes to maintain a viable sea leg deterrent.

The delays and technical difficulties surrounding both of these projects require some context. Initial delays in completing the Borey were due to neglect and lack of funding during the 1990s.\textsuperscript{290} Later it was necessary to conduct extensive modification of the Borey to accommodate the Bulava SLBM design.\textsuperscript{291} As for the Bulava, the failures in production and testing have more to do with quality control of components than a problem with design. It should be noted that this is the first attempt by the Moscow Institute of Thermal Technology (MITT), the company responsible for the design and production of the Bulava, to produce an SLBM. MITT is previously responsible for the successful design of the ground based Topol (NATO reporting code SS-25 “Sickle”), Topol-M (NATO reporting code SS-27 “Sickle B”), and RS-24 Yars ICBMs.

The inability of the Russian military to get both the Borey and the Bulava into production and deployment represents a major security risk due to the importance that SSBNs play in any country’s nuclear triad. SSBNs with their SLBM arsenals can act as both first-strike or second-strike platforms. Their role as second-strike is much more

\textsuperscript{290} “Ballistic Missile Submarines: The Only Way to Go.”

\textsuperscript{291} Ibid.
important because it is difficult to locate and destroy SSBNs hidden beneath the ocean’s surface that are constantly on the move. Also, their SLBMs can “be fired from various points of the compass and [have] the speed of ballistic missiles, not bombers.”

Therefore, in the event of an attack on the Russian Federation that eliminates its ground based ICBMs and strategic air force, Russia could retaliate with SLBM launches. If Russia is unable to get the Borey and Bulava into deployment, it will undermine this second-strike capability and leave Russia vulnerable. Getting both of these systems into deployment is imperative as the strategic fleet is expected to carry at least 30 percent of Russia’s nuclear arsenal by 2015.

Strategic Bombers

Finally, Russia’s strategic bomber fleet represents the last leg of its nuclear triad, and despite the deficiencies and age of the Tu-95s and Tu-160s mentioned above, it has proven itself to be reliable, especially in comparison to the naval leg. It is probably the most well trained of the triad flying “more than 100 strategic bomber patrols over Russia's eastern, western and northern periphery in 2006,” which also included mid-air refueling. However, in relation to the Russia’s ICBMs and SLBMs it is much weaker because its payload takes longer to deliver either as gravity bombs or as air launched cruise missiles and they are only able to carry missiles with a single warhead. Bombers are also more vulnerable to interception by enemy air forces and air defenses and they are

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293 “Russia: Sustaining the Strategic Fleet.”
currently located at only a few air bases making their locations predictable and therefore vulnerable to preemptive strike.

The greatest weakness of the current bomber fleet is obviously its deterioration due to age and lack of proper maintenance. Unless the Russian government invests heavily in repairs or replacement of the current bomber fleet, it may lose this leg of the triad simply due to the age of the equipment. Unfortunately, there are currently no new strategic bombers (either of current of new design) scheduled to enter into service any time soon. A next-generation strategic bomber was included in the new State Armaments Program but has since been pushed back. Currently only a preliminary sketch is expected around 2015. There is talk of restarting production of the Tu-160; however, this plan is uncertain “as it took three years for the Kazan airplant to assemble the bomber that was added to the fleet in April 2008.” Some might argue that the elimination of the strategic bomber fleet could be a positive outcome due to its lesser capability in comparison to SLBMs/ICBMs and as a cost saving measure. However, the fact remains that in repeated tests and training exercises the strategic bombers have performed successfully. Moreover, the long-range bombers possess a high demonstration value with their periodic flights in the North Atlantic and Pacific airspace. It would be difficult to justify their elimination as a cost-saving measure especially in the face of the current weaknesses displayed by the naval triad and its questionable future.

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295 Pavel Baev, “Neither Reform Nor Modernisation: The Armed Forces Under and After Putin’s Command,” 76.

296 Ibid.
Tactical Nuclear Weapons

The difference between tactical and strategic nuclear weapons has not been emphasized here because the Russian Federation is likely to rely on both types of weapons simultaneously. However, the significance of tactical nuclear weapons (TNWs) will be mentioned here as it relates to Russia’s nuclear dependence. Russia’s TNWs primarily consist of short-range nuclear weapons that could be used in a conflict in Russia’s “near abroad” or along the RF’s periphery. It is likely that the military exercises Zapad-99 and Stability 2008 that escalated into nuclear conflicts both employed TNWs. Because of their range limitations they are not considered strategic (i.e. able to strike the United States) and therefore are not bound by the nuclear weapons reduction and limitation treaties such as New START. In addition to short-range missiles, Russia’s stockpile of TNWs also consists of nuclear landmines and artillery shells.297 The United States has sought to engage the RF on TNWs and negotiate a weapons reduction treaty similar to New START; however, the Russian Federation has thus far refused.298

Russia’s refusal to do so is greatly due to the fact that it holds a significant numerical advantage against the United States in TNWs. Meanwhile, the United States holds the advantage is strategic weapons. TNWs fit perfectly into Russia’s current mindset and threat perception regarding external threats and the fear of invasion. Should an attack come along any front of the RF, then TNWs are suited to deterring or defeating that foe. Nuclear landmines could be laid in the path of invading forces to deter or destroy their advance, and short-range TNWs could target enemy forces massed along


298 Ibid.
Russia’s border. This would make any adversary wary of employing ground troops against the RF and if their goal was to acquire territory then the fear would be that they could accidentally trigger such a weapon and contaminate the region.

The fact that TNWs are not covered by any treaty provides Russia with a substantial advantage. First, it places no limits on Russia’s ability to produce these types of weapons and have them labeled as “tactical.” Even though they may be limited in range they could still be delivered against a far-off target if they could be staged close enough, such as on the territory of a Russian ally (like during the Cuban Missile Crisis in 1962). They could also be delivered by an alternative platform. A strategic bomber or submarine that gets close enough could be armed with such weapons. Second, if the RF were to employ TNWs in a conflict, then it would be able to conserve the number of strategic weapons it maintains to deter the United States or other nuclear powers. (The ability to conserve these weapons is pertinent due to the current slow rate of production for nuclear weapons in Russia.) This will become especially relevant as the number of strategic nuclear weapons on both sides continues to decrease as prescribed by current treaties. Therefore, as Russia’s strategic nuclear deterrent decreases, it will be able to compensate with a robust stockpile of TNWs.

Finally, TNWs provide Russia a solution to its concern that it may be approaching a threshold it cannot go below regarding how many strategic nuclear weapons it can maintain without compromising its ability to penetrate an anti-ballistic missile shield. So long as Russia refuses to reduce its TNWs, it can always augment its nuclear forces, such as its strategic bombers, with weapons that officially would be designated as “tactical.” While there would be some sacrificed in capability, it is a potential loophole that the RF
could still exploit. Also, by decreasing its strategic nuclear weapons, Russia may weaken its ability to successful target and deter the United States; retaliate against the United States following a first strike (which would primarily target Russia’s strategic weapons to protect the U.S. homeland and leave Russia’s TNWs in better shape); or penetrate an anti-ballistic missile system.

However, TNWs would allow Russia to retaliate against the United States indirectly. There are numerous U.S. military installations around the globe within range of Russia’s TNWs that could be threatened. More importantly, Russia’s TNWs could be employed against the U.S.’s European allies (which also maintain U.S. bases and personnel) as retaliation or to hold them hostage to deter U.S. action. Therefore, even if the United States could protect itself with an effective anti-ballistic missile shield from Russia retaliation, it would have to be willing to risk sacrificing its allies and U.S. personnel abroad. Even if NATO countries had an effective anti-ballistic missile system, it could be overwhelmed using Russia’s arsenal of TNWs. Therefore, Russia may come to rely more on its tactical nuclear weapons for its national security to compensate for reductions in its strategic stockpile. Regardless of whether they are strategic or tactical, Russia’s reliance on nuclear weapons will persist.

Nuclear Counterarguments

The strongest counterargument that can be proposed to this thesis is that a state cannot be wholly reliant on nuclear weapons. A state’s willingness to use (or threaten to use) nuclear weapons loosely would be counterproductive due to the weapon’s inability to distinguish between civilian and military targets, the wide destruction wrought by even
a single detonation, and the radiological aftereffects to the target environment. Nuclear weapons also run up against a fundamental issue with their practical application to certain scenarios such as terrorism and weapons proliferation.

Therefore, conventional forces provide states with a much more measured, effective, and flexible response with significantly reduced political and economic fallout versus retaliating with a nuclear weapon. There is no denying this. However, it is necessary to take into account Russian threat perceptions and the facts on the ground surrounding Russian current and future military prospects. Russia’s leaders have a history of outside invasion, a Cold War history in which they spent forty years under constant hair-trigger alert of nuclear war, and had the power of its military forces severely diminished following the breakup of the Soviet Union.

Meanwhile, the Russian government has thus far been unable to institute broad and effective military reform and modernization, and the defense industry is still unable to produce the kinds of weapon and technology that has been demonstrated by its rivals and will be necessary if it intends to remain a relevant military power in the 21st Century. The Russian government is charged with defending the largest state in the world with tens of thousands of miles of border and coastline from a variety of threats spread out along its periphery with scarce military resources. And these military resources are not expected to substantially improve either in quantity or quality over time. This is especially true regarding military manpower as population decline due to numerous reasons reduces the number of eligible applicants for military service. If the trend in military decline continues then the only option left available to Russia’s leadership will
be a reliance on nuclear weapons and the potential to reevaluate and broaden the scope in which their use is acceptable.

Nuclear Consequences

Although the use of nuclear weapons in anger has not occurred since Hiroshima and Nagasaki, the use of nuclear weapons by Russia is not beyond the realm of imagination. While, their use against another nuclear power is extremely unlikely due to the consequences of a retaliatory strike, their use domestically, against a non-nuclear threat (state or non-state actor), or use in a demonstration detonation are possible. Conventional wisdom would argue that the use of nuclear weapons in a conflict, either domestically or on foreign soil, against a non-nuclear threat would have political, economic, and international ramifications greater than any benefit that the use of nuclear weapons might yield. In most cases this would be true; however, Russia holds a unique position in global affairs and possesses several characteristics that may insulate or mitigate it from these consequences if it were to employ its nuclear weapons.

First, Russia’s energy reserves and its role as a major energy exporter provide it with substantial leverage over the global energy market. All of Europe is dependent on Russian oil and natural gas either directly or indirectly which would make it impossible for European states to sanction and isolate Russia because they would be crippling their own economies at the same time (See Figure 4). The Baltic States in particular are at Russia’s mercy when it comes to energy.

Russia provides the entirety of the Baltic countries’ natural gas supplies, which are exported via the Yamal pipeline system. Russia provides 99 percent of crude oil to Lithuania, the only Baltic country with a refinery. Russia also
provides 46 percent of Lithuania’s refined oil products imports, as well as 23 percent and 11 percent of total supplies to Estonia and Latvia, respectively…

As for electricity, Estonia and Latvia are net exporters. Lithuania, however, imported nearly half of its electricity from Russia in 2010…

Meanwhile, with the completion of the Nord Stream pipeline under the Baltic Sea, Russia will soon provide energy directly to Germany, the largest economy in all of Europe and a major power player in the European community. Turkey is also heavily dependent on Russian natural gas through the Blue Stream pipeline and countries such as the Baltic states and other Eastern and Central European states are heavily dependent on Russian energy supplies. Meanwhile, Russia can retaliate against sanctions by disrupting pipelines and transportation routes along its periphery such as the Baku-Tbilisi-Ceyhan, Baku-Supsa, and the Baku-Tbilisi-Erzurum pipelines that passes through the Caucasus’s.

Even assuming that the European economies were willing to undertake such economically crippling action and they could find alternative sources of oil and natural gas, it would have the consequence of driving up the global price of oil and gas further hurting the economies of Europe. Beyond energy exports, Russia is a major trading partner and market for numerous European states and any sanction or embargo against doing business with the Russian Federation would also be damaging to the European economy. Therefore, it would be very difficult for European countries to undertake sustained and sever enough action(s) to punish the Russian Federation for its use of nuclear weapons without damaging consequences to themselves.

Second, the Russian Federation’s position as member of the UN Security Council would allow it to block and veto any sanctions or resolutions directed against it. Third,

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the West, and the United States in particular, is involved in many international pursuits and endeavors almost all of which require Russia as an active participant, or least as a neutral party. U.S. desire to stabilize Iraq and Afghanistan, resolve the issues over Iran’s and North Korea’s nuclear programs, enforce non-proliferation and arms control policies, and combat international terrorism – among other things – all require Russian participation or support. If the United States were to level sanctions or condemnation against the Russia Federation or even break off relation as punishment, then the Russia Federation could be a serious agitator and disruptor of U.S. objectives abroad. The Russian Federation could even withdrawal from certain key treaties related to arms reduction (SALT, SORT, START, etc.) and spur a new arms race. This would undo decades of nuclear reduction policies and force the United States to respond in kind. Furthermore, such a breakdown in relations between Russia and the United States would also reignite Cold War mentalities on both sides, validate Russia’s threat perception, and damage long-term relations. The United States needs the Russian Federation’s active or passive support if it wants to succeed in its foreign policies and therefore would be hard pressed to enforce meaningful long-term punishments against it.

Despite the dependence that Europe, the United States, and the rest of the world have on Russia, there would still be costly consequences for the use of nuclear weapons. First, it will greatly hurt Russia’s status in global affairs as it will have violated the Nuclear Non-proliferation Treaty (NPT) if employed against a non-nuclear state. Second, it would be damaging economically by driving away foreign investors and even short-term reductions in trade would damage the Russian economy. In particular, if foreign countries were willing to undertake an embargo and reduce their imports of Russian
Figure 4. Image from “European Dependence on Russian Natural Gas” (Stratfor: Global Intelligence, March 3, 2010), http://www.stratfor.com/analysis/20100303_russia_croatia_courting_zagreb_energy.
goods and resources, then the Russian economy and government revenues would be hurt as natural gas and oil exports constitute a large portion of these. In 2006, oil and gas sector’s share of the federal budget was 49 percent and accounted for 63 percent of exports. The resulting volatility in the energy market, although increasing the price of energy, would also make alternative energy more cost effective and could spur countries dependent on Russian gas and oil to seek renewable alternatives to protect themselves.

A nuclear first use would also help rally numerous states together against Russia. Just as the Cold War fear of a Soviet takeover of Europe bound the Western powers together through common cause, so could a Russian nuclear use in combat. This would undo years worth of foreign policy that has worked to establish close bilateral (and favorable) relations with numerous European states in an attempt to chip away at the cohesion of NATO and the European Union (EU). Instead, such an act would strengthen NATO and the EU with a decidedly anti-Russian objective. Therefore, there would be both short- and long-term consequences on the Russian economy if it went through with a nuclear first-use against an adversary, regardless of how justified they may have felt into doing so.

Finally, the potential for a renewed arms race with the West or the United States as a result of this action would be equally expensive for the Russian Federation. The decisions taken by other states in response to Russia’s nuclear use would only exacerbate its already strong threat perception. Even Russia’s partner, China, could potentially be forced to distance itself and re-evaluate its relationship with Russian Federation. This

could include undertaking defensive countermeasures, reduction of trade and investment, and the elevation of Russia as a threat to Chinese national security.

The purpose here is not to argue that the Russian Federation would or will use nuclear weapons against a non-nuclear threat, but to point out that it is not beyond the realm of possibility and that Russia’s unique position in the global environment provides it with a measure of protection from the consequences associated with their use. Their use alone is not farfetched when considering the number of threats Russia’s leaders’ perceive and the vague definition of what constitutes a threat to the survival of the Russian Federation. As recently as 2008, the Russian military exercise codenamed “Stability 2008,” a month-long exercise, consisted of a hypothetical local conflict pitting Russia against the West. The simulated conflict escalated into global war eventually included the use of nuclear weapons by both sides. Clearly the Russian military considers this scenario possible and intends to be prepared for its eventuality. When considering the destructive power of nuclear weapons, the current weaknesses of Russia’s conventional forces and Russia’s potential ability to weather the global consequences of employing nuclear weapons, then the probability of Russian employment of nuclear weapons may increase.

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CHAPTER EIGHT: CONCLUSION

The Russian Federation will become increasingly dependent on nuclear weapons for national security in the future. The evidence presented above highlights that this will be an inescapable fact for the Russian leadership for historic, geographic, demographic reasons; a threat perception and military doctrine that will necessitate nuclear weapons; and current conventional capabilities that fall short in relation to the benefits of the nuclear forces. Despite attempts by the Russian leadership to overcome their reliance on nuclear weapons, there is no indication in the near future that they will free themselves from this dependence. As pressures increase in areas such as demographics and improved conventional and missile defense capabilities by other states, the need to rely on nuclear weapons will only increase.

Russians have an ingrained and historic fear of invasion and outside threat that has been reinforced numerous times throughout history, most recently during the Cold War by the West’s containment policy directed toward the Soviet Union. The vulnerability of the Russian state is exacerbated by its geographic position. Also, the political, economic, and military consequences of the Soviet Union’s collapse, especially the territorial losses severely weakened the Russian state. Meanwhile, the negative population growth and social problems pose a major demographic challenge for the Russia Federation especially in respect to military conscription. The status of the current conventional military forces, both personnel and equipment, and the inability of the
Russian defense industry to “catch up” and produce military technology of equivalent capability with the West further increases their reliance on nuclear weapons. Finally, the benefits of nuclear weapons, particularly their reliability and demonstrated destructive capability, make them the only part of the Russia’s military forces that are assured to perform effectively if employed.

The Russian Federation spent most of the 1990s leaning on their strategic nuclear forces to make up for the deficiencies in their conventional forces. What was meant only be a “stop-gap” measure has turned into a consistent policy despite persistent attempts at improvement in conventional forces since 2000. The August 2008 conflict with Georgia demonstrated that those improvements have had a limited impact. The conflict emphasized many of the failures and systemic problems within the Russian conventional forces. Had the conflict lasted longer and Georgian forces put-up more resistance then the Russian victory could have been much more costly.

Unless substantial and effective reform takes place within the ranks of Russia’s conventional forces then these forces will continue to perform poorly and be unprepared to defend the Russian Federation in the event of a major, or even limited, conflict. The inability of the Russian defense industry to reform, rebuild, and recruit new talent will prevent it from producing the types of weapons and technology that Russia’s military forces will require in the 21st Century. Without reform in the ranks, elimination of the destructive practice known as dedovshchina, increased training, and supply of new and advanced equipment, Russia’s conventional forces will continue to deteriorate and fail in the mission to protect the Russian Federation.
Finally, Russia’s leaders need to reevaluate their current threat perception and view of the threat environment facing their country. Russia’s obsession with invasion and attack from outside and continued perception of NATO and the United States as threats to Russia’s existence is a major obstacle that must be overcome. This faulty perception dominates Russian planning and outlook, and has prevented the Russian government from concentrating more on the problems that risk destroying the Russian Federation or leading to another break-up like in 1991. Domestic terrorism and insurgent groups, drug use, alcoholism, falling demographics, and social problems such as the spread of HIV/AIDS are much more current and pressing problems that threaten the future of the Russian Federation more than an attack or invasion by NATO.

In fact, Russia’s dependence on its nuclear forces is not necessarily a negative outcome. Russia’s leaders could embrace their dependence on nuclear weapons for their deterrent capability and financial gain. By emphasizing nuclear forces in national defense instead of a large conventional force, the Russian government can direct its funding and energies toward overcoming the other social and economic problems faced by the Federation. Also, if conventional forces are no longer expected to fight a major conflict, then they can be downsized to allow for the professionalization and modernization of a smaller military force that is contract based, highly trained and properly equipped. Obviously there would be a certain level of sacrifice in terms of conventional flexibility and response; however, Russia’s current attempt to modernize and maintain a million-man army is not yielding it any benefits. The only major consequence of such a policy is that the likelihood of a nuclear first-use by the Russian Federation would increase. However, this is expected to happen anyway under current conditions and Russian policy,
and if surrounding states realize that the Russian Federation is so heavily reliant on nuclear weapons then they are less likely to engage in activity that would elicit a nuclear response in the first place.

Based on current trends, the Russian Federation’s dependence on nuclear weapons will continue to increase whether Russia’s leaders realize it or want it to happen. This dependence may take a long time to manifest itself and even longer for the Russian Federation to acknowledge it, if ever. Russia has always perceived itself as a major military power but that power may soon be limited solely to its nuclear forces. The problems in Russia continue to spread and, and have an ever increasing impact on the state and its military position. Whether Russia’s leaders like it or not, nuclear weapons will provide them the only means by which to ensure their national security in a world that they perceive to abound with threats directed against them.
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