Tanks in the Street: Lessons Learned Through Bytes not Blood

A Monograph

by

Major Ricky J. Nussio

United States Army

MENS EST CLAVIS VICTORIAE

School of Advanced Military Studies

United States Army Command and General Staff College

Fort Leavenworth, Kansas

First Term AY 00-01

REPORT DOCUMENTATION PAGE

1. REPORT DATE (DD-MM-YYYY) 02-02-2001	2. REPORT TYPE monograph	3. DATES COVERED (FROM - TO) 01-08-2000 to 02-02-2001	
4. TITLE AND SUBTITLE Tanks in the Street: Lessons Learned Through Bytes not Blood Unclassified		5a. CONTRACT NUMBER	
		5b. GRANT NUMBER	
		5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Nussio, Ricky J. ;		5d. PROJECT NUMBER	
		5e. TASK NUMBER	
		5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME AND ADDRESS USA Command & General Staff College School of Advanced Military Studies 1 Reynolds Ave. Fort Leavenworth , KS 66027		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME AND ADDRESS ,		10. SPONSOR/MONITOR'S ACRONYM(S)	
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT A PUBLIC RELEASE ,			

13. SUPPLEMENTARY NOTES

14. ABSTRACT
In December 1994 Russian armored forces assaulted Grozny, Chechnya in an attempt to subdue armed opposition groups seeking independence. Within twenty-four hours of urban combat the Chechens destroyed two brigade-sized units while suffering minimal casualties. Analysts speculate that fundamental errors committed by Russian forces caused the uneven battle. They determined the Russians committed poorly trained and improperly organized armored forces into an urban environment. Are those subjective assessments correct? One way to test those conclusions is through simulation. Through a controlled set of computer simulations it was possible to test the evaluations made by the analysts. Important elements of the urban battle are replicated using commercial software. After developing a suitable control scenario of the initial battle, a number of factors were examined by varying the settings in the simulation. The results from the different iterations provide evidence that confirms many of the analysts? observations. The Russians might have been successful in their initial assault into Grozny had they employed properly trained and organized forces for urban combat. Armored forces can play a significant role in successful urban combat operations. The US Army is currently revising their doctrine concerning the application of armored forces in urban terrain. Since doctrine is best derived from experience it is useful to examine a very difficult contemporary example of armor operations in a city and from that example begin to develop concepts for mounted combat in an urban environment.

15. SUBJECT TERMS
MOUT; Chechnya; Grozny; urban combat; Armored forces; mounted combat

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON Burgess, Ed burgesse@leavenworth.army.mil
a. REPORT Unclassified	**b. ABSTRACT** Unclassified	**c. THIS PAGE** Unclassified	Same as Report (SAR)	46	**19b. TELEPHONE NUMBER International Area Code** **Area Code Telephone Number** 913 758-3171 **DSN** 585-3171

ABSTRACT

TANKS IN THE STREET: LESSONS LEARNED THROUGH BYTES NOT BLOOD by MAJ Ricky J. Nussio, USA, 46 pages.

In December 1994 Russian armored forces assaulted Grozny, Chechnya in an attempt to subdue armed opposition groups seeking independence. Within twenty-four hours of urban combat the Chechens destroyed two brigade-sized units while suffering minimal casualties. Analysts speculate that fundamental errors committed by Russian forces caused the uneven battle. They determined the Russians committed poorly trained and improperly organized armored forces into an urban environment. Are those subjective assessments correct? One way to test those conclusions is through simulation.

Through a controlled set of computer simulations it was possible to test the evaluations made by the analysts. Important elements of the urban battle are replicated using commercial software. After developing a suitable control scenario of the initial battle, a number of factors were examined by varying the settings in the simulation. The results from the different iterations provide evidence that confirms many of the analysts' observations.

The Russians might have been successful in their initial assault into Grozny had they employed properly trained and organized forces for urban combat. Armored forces can play a significant role in successful urban combat operations. The US Army is currently revising their doctrine concerning the application of armored forces in urban terrain. Since doctrine is best derived from experience it is useful to examine a very difficult contemporary example of armor operations in a city and from that example begin to develop concepts for mounted combat in an urban environment.

TABLE OF CONTENTS

INTRODUCTION

The focus of United States' military preparation shifted recently from the plains
of Europe to face new threats presented by the changing world order. Based upon
experiences of military operations in Somalia, Haiti and other urban operations the US
identified deficiencies in operating in an urban environment. Recent RAND Corporation
studies have called for the creation of new joint and service specific doctrine and the
purchase of new technologies and weapons to eliminate the shortfalls.[1] The RAND
Corporation has made several recommendations to the services based upon the lessons
identified in other urban combat operations fought within the recent decade such as
Grozny, Chechnya.[2]

Since 1994 the Russians and Chechens have fought sporadically to control
Grozny. The Russian's initial assault into Grozny in December 1994 was a disaster.
Within twenty-four hours, Chechen forces destroyed two brigade-sized elements, the
131st Motorized Rifle Brigade (MRB) and the 81st Motorized Rifle Regiment (MRR).
These two units lost almost two hundred armored vehicles and suffered more than 2,000
casualties. It took the Russians three more weeks to secure their initial objectives and
more than eight weeks before they considered the city secure.

---

[1] See Glenn, Russell W. Combat in Hell: A Consideration of Constrained Urban Warfare. Santa Monica:
RAND, 1996, Glenn, Russell W.   Marching Under Darkening Skies: The American Military and the
Impending Urban Operations Threat. Santa Monica: RAND, 1998, & Glenn, Russell W. "…We Band of
Brothers:" The Call for Joint Urban Operations Doctrine. Santa Monica: RAND, 1999.
[2] Edwards, Sean J. A. *Mars Unmasked: the Changing Face of Urban Operations.* Santa Monica: RAND,
1998, 79-94.

The Russians, as well as the rest of the world, scrutinized the battle to find out what went so very wrong. Several critical errors led to the failure of this operation. Reports analyzing the initial battle cite an overall failure to prepare the Russian soldiers. Many were poorly trained, conscript soldiers.[3] Armored forces were poorly applied in an urban environment. Tanks and Armored Personnel Carriers (APCs) advanced into the city without adequate dismounted infantry support.[4] The vehicles traveled in dense, column formations. In some instances, Russian drivers parked their vehicles outside the buildings they were assigned to secure and went inside.[5] These actions reflect in part the unit's poor readiness, the low level of unit training proficiency,[6] and a gross underestimation of Chechen resistance.[7]

However, these assessments are largely subjective. The examination of the battle by various groups or historians can only study what happened and draw conclusions from personal accounts and written records. From a scientific standpoint to determine whether the assessments of Russian errors committed in Grozny are correct it is necessary to replicate the situation. Obviously, the battle cannot be restaged under similar conditions with modified forces to determine the validity of findings. The only way to replicate the battle is through simulation.

---

[3] Raevsky, Andrei. "Russian Military Performance in Chechnya: An Initial Evaluation." *The Journal of Slavic Military Studies* 9, no. 4 (December 1995): 681-690, 684-685.
[4] Knezys, Stasys & Sedlickas, Romanas. *The War in Chechnya*. College Station: Texas A&M University Press, 1999, 104.
[5] Kulikov, Anatoly Sergeevich, General, Russian Ministry of Internal Affairs. Interview given at RAND to Russell W. Glenn, May 2000. Transcript provided by Foreign Military Studies Office, Fort Leavenworth, Kansas, 36.
[6] Russian Federal Forces had not held a regimental or division exercise in over two years. CALL Staff. "Urban Combat Operations." *Call Newsletter*, November. 1999, G-1.
[7] Fowkes, Ben. Ed. *Russia and Chechnya: The Permanent Crisis*. New York: St Martin's Press, 1998, 120.

In a simulation of the urban combat in Grozny, the situation can be replicated to mirror actual events. Modified variables are introduced after developing a satisfactory control scenario. These modifications are used to test subjectively drawn conclusions of the battle. The subjective conclusions include the idea that the Russians were poorly trained and improperly organized for urban combat in Grozny. By comparing the new outcomes of the simulated battle, the experiments suggest what changes the Russians needed in their organization to fight successfully in Grozny. Further analysis of those tested conclusions lead to the findings of this paper. Russian forces assaulting the city needed to change substantially their organization during the initial assault.

METHODOLOGY

This monograph is an examination of the tactical application of armored forces in Grozny, Chechnya during the 1994-95 New Year's battle in the capital. While a live reenactment of the battle is not possible, it is possible to recreate the important elements of the battle through the use of a commercial computer simulation. *Steel Panthers II: Modern Battles* was the software selected. It provides a tactically oriented wargame that simulates weapons and battlefields from 1950 to 1999. The portion of the battle in Grozny simulated was the first Russian attempt to seize the city. The initial Russian failure and high casualty rate prompted numerous studies and focused worldwide attention on the difficulties of combat in an urban environment. The isolated nature of the fighting provides clear parameters in which to frame a simulation.

To frame the study and set the conditions for analyzing the results of the simulations, it was necessary to first examine the available historical information to

understand the events leading to the combat in Grozny. Second, from the information thus gained, the scenario and the conduct of the simulation were designed. Testing the various battlefield observations was a matter of selecting relevant variables to simulate and introducing those variables in different iterations of the scenario. By collecting the results of each iteration and comparing them it was possible to garner information about the importance of each factor in the performance of the opposing forces. Finally, a comparison of the simulation results and an assessment of the simulation's fidelity provides the basis for identifying the tactical factors that best explain the Russian failure and identify a path for more successful MOUT operations.

To test the major lessons identified by a review of the literature required four main iterations of the simulated battle. The initial iteration of the simulation was the control simulation designed to replicate the engagement of the 131st MRB and the 81st MRR. While other engagements occurred on the approaches to the city, only these units penetrated into specific objectives within the city. The original New Year's action on December 31, 1994 was replicated through simulation to establish a control set of values and the reasonableness of the scenario. The values obtained during the control iteration became the base for comparisons made against the outcomes of other iterations with modified variables. The variables monitored included the number of personnel and vehicle casualties sustained by Russian and Chechen forces; the successful seizure and control of key installations such as the Presidential Palace and the Railway Station; and the time required to complete the assigned tasks.

In the other iterations, the effect of changing different tactical variables was tested. The first variable modified was the level of training of the Russian forces, since

the majority of the soldiers within the employed forces lacked adequate basic and urban training. The conscript forces had received no urban combat training prior to deploying to Grozny. The major units involved had not conducted an exercise above battalion level in over two years.

Next, several sources criticize the Russian forces for not using more dismounted infantry to protect the armored formations. Infantry that accompanied the armored columns either remained inside their APCs or failed to provide local security for the armored vehicles. The final iteration tested the effect of combining variables, training and force composition. This combination sought to examine the effect of multiple changes on the outcome of the initial battle for Grozny. Factors that remained constant in each iteration were; the simulated urban terrain, the Russian mission and the Chechen forces and their mission. The expectation was that alone no single variable affects the outcome as much as the combination. It seemed likely that casualty and vehicle losses would remain high and the Russians would fail unless the simulated Russian forces employed drastic changes in their tactics, techniques, and procedures.

The analysis of the different iterations suggested a number of conclusions concerning the Russian's use of armored forces in this battle and some generalizations about armored combat in urban terrain. Based upon the results of this simulation of the New Years Battle in Grozny, the Russians should have deployed properly trained armored forces protected by more dismounted infantry. As the United States military foresees an increasing number of MOUT operations it is critical that military leaders and planning staffs comprehend the challenges of urban combat. The future training and

5

preparation of US military forces must reflect the realities of urban combat examined in this monograph.

HISTORICAL BACKGROUND

The roots of the Russian-Chechen conflict stretch back several hundred years. For the purpose of the simulation, only recent events within five years of the conflict are examined to provide an understanding of the situation. The historical review begins around the time of the breakup of the Soviet Union.[8] Critical combat events replicated in the simulation are identified during the historical review.

The Caucasus Region became politically and militarily inflamed during the collapse of the Soviet Union and the instability that followed. A Soviet Major General and popular Chechen, Jokhar Dudayev, seized the opportunity to advance his nation's goal of sovereignty. After the August 1991 attempted coup against Gorbachev, Chechen Nationalists with Dudayev's support stormed the Chechen Supreme Soviet and a few weeks later it voted to dissolve itself.[9] Dudayev proclaimed himself interim leader until the country held elections. On 27 October 1991, Dudayev won eighty-five percent of the vote and was sworn in as chairman with one hand on the Koran.

Russian President Boris Yeltsin initially appreciated Dudayev's resistance to the Soviet government. But Yeltsin believed Chechnya was part of the Russian Republic.[10] On November 2, Yeltsin ignored Chechnya's claim to independence, declared a state of

---

[8] For a concise review of the history of the Caucasus, read Knezys & Sedlickas, 10-15.

[9] Smith, Sebastian. *Allah's Mountains: Politics and War in the Russian Caucasus.* I.B. Tauris Publishers: London, 1998, 127.

[10] O'Ballance, Edgar. *War in the Caucasus, 1990-1995.* New York: New York University Press, 1997, 167.

emergency, and dispatched troops to the region. As the Interior Ministry troops landed at an airfield near Grozny, Chechen National Guard forces raised by Dudayev surrounded them. After a brief showdown, the troops departed when the Russian Parliament refused to support Yeltsin's decree.[11] Future confrontations between Yeltsin and Dudayev were not resolved as peacefully as the first.

Yeltsin's preoccupation with his own political survival gave Dudayev maneuvering space to strengthen his fledgling state.[12] Dudayev demanded the departure of former Soviet and Russian Forces stationed in Chechnya. Under a hastily signed agreement, the forces departed and agreed to transfer most of their weapons not already stolen by the Chechens to the Chechen National Guard. Among the weapons were over 40,000 small arms, 150,000 RPG warheads, and a few hundred combat vehicles and aircraft. The weapons strengthened the Dudayev regime significantly because Dudayev used them to create combat ready formations with which to cow Chechen opposition parties.[13]

The Chechen Republic quickly became more than a political irritant for Russia. Relations between Russia and the Chechen Republic deteriorated. Russian government officials worried about the effect the departure of Chechnya from the Russian Federation would have on the stability of the Federation. Such a move might encourage other minority populations to declare independence. Additionally, Chechen independence might threaten Russia's claim to Caspian Sea oil fields and the pipelines that transport the

---

[11] Smith, 128.
[12] O'Ballance, 171-172.
[13] Nikolaev, Yu V. *The Chechen Tragedy: Who is to Blame?* New York: Nova Science Publishers, 1996, 23.

oil.[14] Russian officials exaggerated the effect Chechen organized crime was having on the country. President Yeltsin stated, "…the explosion of banditry on Chechen soil threatens our entire country."[15] Chechen criminal activity became the main reason Yeltsin needed to continue to fight against Chechen independence.

In April 1993 Dudayev dissolved parliament and began ruling by decree. Open fighting occurred between Dudayev's National Guard and opposition groups backed by Russia. After an attempted assassination, Dudayev claimed the Russian Counter-Intelligence Service (FSK) tried to kill him.[16] In October 1994, the Russian Deputy Prime Minister stated "…Chechnya was part of Russian territory, must remain so, and that force may have to be used to quell unrest."[17]

A militia opposition group with Russian support marched toward Grozny on 25 November 1994. The FSK backed two opposition leaders and supplied fifty tanks and APCs. The FSK recruited and paid federal soldiers to participate in the coup. On 26 November the Russian Forces attempted to link up with opposition forces near the Presidential Palace. Chechen forces loyal to Dudayev ambushed the column destroying most of the vehicles. Over 300 men from both sides died as a result of the ambush. After Defense Minister Grachev stated that no Russian forces participated in the battle the Chechens paraded twenty Russian soldiers in front of the media. [18] Grachev ominously stated "If the army had fought, we would have needed one parachute regiment to decide the whole affair in two hours."[19] The failure of this operation embarrassed Yeltsin's

---

[14] Fowkes, 98-100.
[15] Ibid, 100.
[16] O'Ballance, 173.
[17] Ibid, 176.
[18] Smith, 137.
[19] Gall, Carlotta & de Waal, Thomas. *Chechnya: Calamity in the Caucasus.* New York: New York University Press, 1998, 27.

administration. In a special meeting with his Security Council held on 29 November 1994, planning began for the invasion of Chechnya.[20]

On 9 December 1994, Russian President Boris Yeltsin ordered the commencement of Operation Wave, a military operation officially designed "…to restore constitutional authority and disarm illegal militias…" in the breakaway Republic of Chechnya.[21] Three separate Russian governmental organizations, regular Federal Russian armed forces units, Interior Ministry troops, and units of the Federal Counter-Intelligence Service (FSK) participated in the operation. These forces expected to complete their operations no later than December 23.[22] The initial seizure of the capital city of Grozny and several key facilities and buildings in the city was key to their operation. Confidence in the operation's success ran high within the Russian government. Some officials compared their potentially swift victory to the United States military action in Haiti. [23] What followed was a military disaster.

The Russian mission was simply to "…go into the city, and then take the major buildings and hold them for the Interior Ministry troops to come in and take over."[24] The Russian operational concept was to approach Grozny along three main avenues, from the North, West and the East. Federal forces would seize key buildings and infrastructure within the city center and the three assault groups would link up at key bridges that span the Sunzha River. Russian Special Operations Teams were responsible for locating and capturing Dudayev. Federal Forces were to disarm rebel factions and turn the key

---

[20] Nikolaev, 86.
[21] O'Ballance, 180.
[22] Nikolaev, 86-87.
[23] Gall & de Waal, 160-161.
[24] Fowkes, 120.

installations over to the Interior Ministry troops. The planners who conceived the operation had old Soviet operations in mind. A Russian governmental official commented: "…It was a Prague-type operation; or like that in Moscow in August 1991. They suggested they go and park in the town, and that way create political pressure so the government wouldn't be able to survive…"[25] The massive armored formations would go into the city center to crush any resistance in a dramatic show of force. But the Russians faced an entirely new scenario, on a different stage with new actors: Chechens.

The forces the Russians sent in were poorly prepared for what they were to face. Many of the soldiers were new conscripts with only seven months of training. One unit was performing snow-clearing tasks on December 14 and two weeks later found itself fighting in Grozny. Up to that point there were few large unit exercises or maneuvers. After the battle Defense Minister Grachev said the best troops served in guard units in the Strategic Rocket Forces.[26] To replicate this within the scenario, the software permits the user to increase the level of unit training on a percentage basis. The simulation controls the level of unit effectiveness by modifying player preferences for the Russian and Chechen units. The manipulation of percentages from 30-250% controls the individual training level and weapons proficiency. The higher the percentage the better trained and proficient selected units become.

On the day of the initial assault into Grozny only the Northern force achieved any success. The Western force, comprised of the 19th Motorized Rifle Division and elements of the 76th and 106th Paratroop Divisions, were delayed by fierce resistance in the western suburbs and the Commander's reluctance to press the to attack. This force eventually

---

[25] Gall & de Waal, 13-14.
[26] Grachev was referring to the guards of Russian ICBMs, see note 230 in Fowkes, 162.

made it to the city center later the next day but the initial assault was over by then. The Eastern force, consisting of the 104th Parachute Division (whose Commander refused to commit most of his unit in the attack due to inadequate preparations) and the 129th MRR, encountered stiff resistance in the eastern suburbs of the city.[27] That action prevented the eastern force from linking up with western forces as planned at the southern railroad bridge that spans the Sunzha River.

Confusion reigned during the initial stages of the operation. Military leaders refused to obey orders and submitted letters of resignation in protest to an operation they considered illegal.[28] Units deployed without adequate training and supplies. One Russian general described the lack of preparation as criminal.[29] The troops that deployed to the region were young, poorly led conscripted soldiers.[30] During the initial three-pronged assault of Grozny, only two units from the Northern assault group reached the city center, the 131st MRB and the 81st MRR. This is why these are the only forces replicated within the simulation. The other forces did not directly influence fighting inside the city until after the destruction of the 131st MRB and the 81st MRR.

Dudayev planned to either fight or gain independence through political means with either result acceptable to him. The Chechens organized into three defensive rings in the city. The inner ring centered on the Presidential Palace with a radius of .5 to 1.5 kilometers. The next ring was about 1 kilometer from the central ring in the north and northwest and up to 5 kilometers south of the center ring. The outer group ringed the perimeter of the city limits, in the suburbs surrounding the city. The simulation replicated

---

[27] Knezys & Sedlickas, 101-102.
[28] Lieven, Anatol. *Chechnya: Tombstone of Russian Power*. New Haven: Yale University Press, 1998, 106.
[29] Gall & de Waal, 179.
[30] Fowkes, 122-123.

only the forces in the center ring. The other two rings fought mainly in the suburbs and did not directly influence the inner city battle.

Russian forces claim they fought about 8,000-15,000 armed fighters, depending on the source. A more realistic number is around 3,000, of which only eight hundred were in organized units.[31] Two battalions called the Abkhaz and the Muslims made up the core of Dudayev's Chechen National Guard. The remaining fighters were mostly civilian volunteers who answered the call to arms, not to fight for Dudayev, but to take up the historic resistance to yet another Russian invasion of their homeland. These volunteers operated in groups ranging from three to twenty or more men. There was some organization in that they operated in the area they were familiar with or lived in, but during the actual fighting they often "moved to the sound of the guns," ignoring their area of responsibility. To replicate these forces, the eight hundred were divided into two formations of four hundred men. More than half of these were organized into squads of thirteen fighters with the remainder in two man RPG teams or fighting as individual snipers.

Shamil Basayev led the Abkhaz battalion, the unit that destroyed most of the Russian forces in the city center. He led elements of this unit in combat only a few years earlier, in the republic of Abkhaz, west of Chechnya.[32] This unit had prior combat experience and along with the Muslim Battalion, formed the two organized units of fighters around the Presidential Palace used in the simulation. In comparison to the Russian forces, the Chechen fighters were older and had prior combat experience. Many

---

[31] Gall & de Wall, 188.
[32] Finch, Raymond C. "A Face of Future Battle: Chechen Fighter Shamil Basayev." *Military Review* 77, no. 3 (May-June 1997): 35.

had served in the former Soviet Army and retained many specialized skills. One observer commented: "I'm really impressed by the Chechen fighters. They've got so many guns but you don't see them fooling around with them, showing off…They're really serious soldiers."[33] For the simulation, the replicated Chechen forces were given the maximum level of training value to replicate their determination and capabilities.

The combination of a dedicated and heavily armed enemy was a deadly combination for the Russian forces. The Chechens had large caches of weapons and ammunition stored near Grozny. When the republic first left the Russian Federation in 1992, the Russians left behind large quantities of weaponry in Chechnya. They had over 150,000 RPG warheads. A 38-year-old Chechen guerrilla's description of the Russian assault into Grozny on 31 December provides an example of the individual Chechen fighter's emotions.

> "It's better for us in the dark and in the city. Here, they're our guests and we're the hosts. They have come in, but they won't leave…They're not fighting for anything, but we're fighting for our homeland – we're not afraid to die. They have planes and tanks and all we have is Allah and the RPG. But we know what we're fighting for."[34]

Russian military leaders did not comprehend the mentality of the individual Chechen fighter and grossly underestimated their military preparedness. They committed their forces into an unknown situation.

The main elements of Northern assault group were the 81st MRR of the 20th Motorized Rifle Division and the 131st MRB, a separate brigade from the city of Maikop. The 81st MRR and the 131st MRB are the forces replicated in the simulation. The 81st

---

[33] Lieven, 118.
[34] Smith, 158.

MRR consisted of three battalions of BTR-80 APCs with an attached battery of self-propelled howitzers.[35] The 131st MRB consisted of two motorized rifle battalions and one tank battalion. The initial mission of the 131st MRB was to secure the Western Market Place while the 81st MRR would seize the Presidential Palace and the bridges across the Sunzha River. The 81st MRR reached its objective while the 131st MRB's objective was changed. Upon entering the city limits at 9 A.M., a reconnaissance element from the brigade made contact with a Chechen defensive position. The Chechen defense forced the Russian main body to bypass it to the south.[36] The 131st MRB received orders to seize the Railway Station when the Western assault group reported they were unable to enter the city.[37]

The boldness of the Russian armored drive into the city on the morning of 31 December surprised the Chechens and initially they reacted slowly. This was one portion of the Russian plan that worked well. The Chechens did not expect the Russians to attack the city center so abruptly. It was also New Years Eve and Dudayev believed a deliberate attack would not start until after the holiday.[38] Initially the Chechens were confused and unsure of how to respond. But by 1 P.M. they responded in full force and attacked both columns.

The Russians drove into the city unprepared for urban combat and unaware of the resistance that awaited them. The 131st MRB (-) occupied the railway station and parked their combat vehicles outside the building. One motorized battalion remained at the edge of the city as the brigade reserve. Faced with little resistance, some of the crews

---

[35] Gall & de Waal, 12.
[36] Knezys & Sedlickas, 96-97.
[37] See map in the Appendix, page 39.
[38] Knezys & Sedlickas, 98.

dismounted and went inside the building.[39] In the simulation, the 131st MRB (-) is deployed around the rail station with one motorized battalion in reserve. The tank battalion is divided with two companies deployed at the rail station and one with the reserve.

To the north, the 81st MRR advanced down Pervomaiskaya Street towards the Presidential Palace. As the 81st MRR reached the Presidential Palace, the Chechens attacked this regiment along the length of the street. They destroyed most of the 81st MRR along that route because Russian unit cohesion quickly disintegrated and the battle became a matter of individual vehicle and crewmember survival.[40]

> "The armored columns…were most often stopped by knocking out the first and last armored vehicles. Afterwards, the combat vehicles stuck in the middle were fired at from the surrounding buildings, knocked out, and set on fire. Those (vehicles) unable to break out from the columns then began breaking into the adjoining concrete buildings by smashing through them in reverse…But the major portion of the armored vehicles were either knocked out immediately or forced to fight while encircled and without any hope of breaking out."[41]

Without Russian dismounted infantry to provide close cover, Russian armored vehicles were exposed to close assault. The Chechens hunted down individual armored vehicles and destroyed them at very close range. By nightfall over seventy armored vehicles of the 81st MRR lay destroyed.[42] After the battle unit survivors reported half of the regiment's 1114 men were killed in action. One survivor recalls only one of thirty BTR-80s returning from a battalion of the 81st MRR.[43]

---

[39] Kulikov, 38.
[40] Gall & de Waal, 4-5.
[41] Knezys & Sedlickas, 98.
[42] Ibid, 99.
[43] Gall & de Waal, 15.

The lack of dismounted security for the armored formations seemed critical to the outcome of the battle. Improving the poor performance of Russian infantry can be investigated in several ways. First, additional infantry can be added to the Russian force structure. Second, during execution the conditions can be set to cause the infantry to dismount earlier. In either case, one iteration tests the impact of a change from the original assault in the number and actions of dismounted motorized infantry.

At 3 PM, the Chechens attacked the 131st MRB at the railway station. By 3:30 the 131st MRB had lost many of their vehicles to Chechen RPG teams. The Brigade Commander, COL Ivan Savin although wounded in both legs, organized a defense inside the rail station. The next morning he ordered his assistant commander, COL Andrijevski, to organize a relief by the remainder of the brigade and to attempt a breakthrough to the rest of the brigade. At 11:00 the next morning COL Andrijevski led forty armored vehicles towards the rail station. They were forced from their intended route and instead approached the rail station from the next block over.[44] The Chechens ambushed the relief force when it was within a few hundred yards of the railway station and destroyed the column.

> "According to the participants in the battle, a grenade launcher antitank shell then knocked out the column's command vehicle and the column lost any effective command. The tank immediately lit up like a torch…Each of the group's armored personnel carriers was pierced by at least five antitank grenades…Only two tanks were able to break out…The rest…kept burning and crashing in to each other in the confusion."[45]

Later that day, after two relief efforts from different units had failed to relieve the remnants of the 131st MRB, COL Savin decided to attempt a breakout. The first attempt

---

[44] Gall & de Waal, 8.
[45] Knezys & Sedlickas, 101.

failed. During the second attempt the brigade's soldiers lost their way and headed deeper into the city towards the Presidential Palace. The Chechens killed COL Savin near the Palace and captured seventy others.[46]

Within twenty-four hours, the 131st MRB ceased to exist. Survivors from the brigade have placed a destroyed tank from the battle in the town square of Maikop, the regiment's home base, to honor those killed in Grozny. Survivors from the brigade say over 1,000 died in Grozny although the six official granite markers name only 110.[47] What is clear is two Russian brigade-sized armored units deployed into an urban combat environment with modern vehicles and equipment. These organizations faced a smaller, unarmored Chechen infantry force organized into two battalions totaling approximately eight hundred men.[48] After twenty-four hours of urban combat the Russian forces sent into the city ceased to exist and the Chechens suffered minimal losses and retained control of the center of the city.

In replicating this battle, the simulation isolates the battle in the center of the city to narrow the experiment and properly reflect historical events. The simulation replicates only the 131st MRB engagement with the Abkhaz battalion and the ambush of the 81st MRR by the Muslim battalion. Since these two engagements occurred apart from each other, they are conducted as two separate iterations subject to the same modified variables.

---

[46] Knezys & Sedlickas, 100.
[47] Gall & de Waal, 15.
[48] Knezys & Sedlickas, 94-95.

DEFINING THE EXPERIMENT

To validate the simulation scenario it was important to replicate the initial Russian defeat and battles fought by the 131st MRB near the rail station and the 81st MRR along Pervomaiskaya Street. Since the engagements fought by the 131st MRB and the 81st MRR occurred in separate portions of the city against separate Chechen forces, it was possible to design the scenarios for the 131st MRB engagement and the 81st MRR engagement separately.

Steel Panthers II is an interactive computer game that simulates armored warfare from the Korean War era to the present. The program simulates fifty-five historically based scenarios, some of which are fictional. The user is given a number of choices for running the simulation. The user may choose to allow the computer control the two opposing forces, allow the computer to play against an individual player, or permit two human players to play against each other. The scenario editor provided in the game permits the user to create new scenarios. The scenario editor allows the user to set the force structure of the two opposing forces; to design the terrain map for the scenario; and to vary subjective characteristics such as leadership and training.

The map editor makes it possible to replicate a variety of terrain. To replicate the battle for Grozny it was necessary to examine several maps of the city. A 1:25,000 scale city map of Grozny obtained from the National Imagery and Mapping Agency (NIMA) provided the majority of the urban detail. Several books contain diagrams and maps of the city area and the streets on which most of the fighting occurred.[49] Photographs of the

---

[49] Knezys & Sedlickas, 97 & 100; Gall & de Waal, 384.

city were used to obtain a sense of scale and detail that some of the maps lacked; for example, many of the larger streets had trees along the pavement.

Any type of terrain can be replicated in hexagonal units up to a map size of 4.5 by 3.6 kilometers. Because the combat replicated in this simulation occurred in the center of the city in an area 3 by 2 kilometers, the terrain map was constructed to represent a 4.5 by 3.6 square kilometer portion of Grozny. The map hexagons were each 50 yards or 45.72 meters portions of terrain. The scenario map, therefore, was 99 long and 79 hexes wide. Each hex was edited to represent the terrain depicted on the map of Grozny and photographs of the battle area. The finished map represented a complete urban environment. Measurements from the maps translated to the hex grid created a computer environment similar to that of Grozny itself.

The hex grid, properly scaled to the battle area, made it possible to accurately represent the actual road network in central Grozny and include the major streets used by Russian forces as they advanced into the city. The editor permitted adjustments in the building density and types of construction, such as wood or concrete for a close but not exact representation of the city. While the simulated city is not exact, it did provide an adequate representation of the major factors that influenced tactical combat; such as reduced weapon ranges, limited visibility, the street system, the Sunzha River and bridges, and complex terrain. All those factors were realistically recreated through the map design.

Each simulated force had a turn to move all their units a limited number of hexes based upon the type of unit and location. Mounted units could move further, usually around twenty hexes per turn while dismounted units could move only three to six hexes

per turn. Streets facilitated movement while structures inhibited movement. Each iteration permitted twenty-six to thirty turns per side on an alternating basis. Each turn represented about three minutes of actual time.

Structuring and equipping the forces was also approached through the game editor. Up to a division of armored equipment from over forty countries is templated and available for use in the game editor. The list of available equipment ranges from individual assault rifles to main battle tanks, attack helicopters, and artillery. The software simulates the T-80s, BMP-2s, BTRs, and other armored vehicles used by the 131st MRB and the 81st MRR in the battle. The table below shows the unit and equipment list replicated in the simulation and reflect the actual units identified from the historical record of the battle for Grozny. The 81st MRR had a self-propelled artillery battery attached to it for its drive on the Presidential Palace, probably since the regiment had no tanks.

Simulated Russian Forces[50]

	T-80 / 2S1 120mm SP	BMP-2	BTR-70	BRDM-2
131st MRB	26/0	60	0	4
81st MRR	0/6	0	73	0

The software editor generated irregular guerrilla forces based on Afghanistan Mujahadeen fighters. Chechen forces were organized and equipped as snipers, guerrilla squad-sized elements, and anti-tank infantry-RPG teams from these simulated forces found in the software editor. The anti-tank RPG teams were essential for the simulation design because these groups destroyed most of the Russian vehicles.

---

[50] These figures are based on facts drawn from: Knezys & Sedlickas, General Kulikov's interview, and Thomas' three part series in *The Journal of Slavic Military Studies*.

Chechen forces

Unit	Guerilla squad	RPG team	Sniper	HQ element
Abkhaz BN	25	30	10	1
Muslim BN	25	30	10	1

Each guerrilla squad consisted of thirteen men armed with AK-47 assault rifles, hand grenades, and one 7.62 light machine-gun. Most Chechens operated in groups of five to twenty men.[51] The RPG teams consist of two men, one armed with an RPG-7 and the other an AK-47. Each man in the team carries three additional rounds for the RPG. The sniper is a single soldier armed with a Draganov 7.62mm sniper rifle. The Chechens killed many Russian leaders with snipers in Grozny.[52] The RPG teams were the essential elements in the Chechens forces. Although the squads brought more firepower it was the RPG teams that destroyed most of the Russian vehicles.[53]

The simulation replicated many of the limiting factors of the original battle to remain as realistic as possible. Armored vehicles drove through buildings but the structure slowed their progress and they risked immobilization on a random basis. The larger and heavier the vehicle, such as a tank, the more likely it moved successfully through a building. Lighter vehicles, such as the BTR, suffered immobilization when attempting to drive through a building. Units had a limited amount of ammunition per turn and also per iteration. As an example, each RPG team had a total of six warheads; once fired they received no re-supply.

The action involving the 131st MRB and the 81st MRR occurred at two different locations in the city. It involved separate Chechen defenders, the Abkhaz and Muslim

---

[51] Smith, 152.
[52] One battalion of the 81st MRR lost almost all its officers to sniper fire, Knezys & Sedlickas, 106.
[53] Lieven, 117.

battalions. For simulation purposes and ease of controlling computer-generated forces, the engagement iterations fought between these units were run separately.

In designing the control iterations, Russian forces were placed on the city map where they were prior to their engagement based upon the research of the battle. Chechen Forces were similarly positioned. The 131st MRB (-) concentrated around the rail station with some soldiers positioned inside the building. The 81st MRR deployed in a column formation along Pervomaiskaya Street, the main street approaching the Presidential Palace. The Chechen forces were placed in a position to initiate attacks on the Russian forces. The Abkhaz battalion attacked the rail station from three sides, primarily from a large building southeast of the station. The Muslim battalion attacked the Russians along the length of the Pervomaiskaya Street in linear ambush formation. True to the original action, the Chechens attacked the lead elements as they reached the large square near the Presidential Palace as well as the trail elements. Subsequently, the Chechens attacked the vehicles remaining in the middle of the column.

In the simulation the Chechens enjoyed near perfect visibility because they occupied buildings in close proximity to Russian forces. Since the Chechen forces fought as light infantry they usually acquired Russian vehicles first, fired, and then avoided return fire because the simulation degrades the visibility of an armored vehicle's crew. For the experiment, a unit's proficiency in spotting opposing forces was controlled the same as the level of training. This was increased the same amount as training because a trained soldier is proficient in scanning and target acquisition techniques. When Chechen forces crossed long streets they were routinely spotted and engaged. By moving between

buildings and along streets adjacent to the Russians the Chechens moved unhindered and avoided detection.

With the Russian training values at 30 % (simulation minimum) and the Chechens set at 250% (simulation maximum), the results of the control iteration modeled the actual battle. Russian losses were extremely high while the Chechens were relatively light. At the end of each iteration, the simulation provides a summary of individual and vehicle casualties. For this experiment, these numbers are expressed in percentage of Russian vehicle losses and Chechen fighters killed in action. In the combat around the rail station a local inhabitant stated the Chechens lost only about forty fighters while the Russians reportedly lost eighty-five percent of their vehicles.[54] These actual combat losses were used to validate the results of the control iteration.

For the rail station control iteration, two Russians battalion-sized elements were positioned at the rail station and one battalion-sized element was placed at the city outskirts to act as the relief effort. Once the Chechens routed the main body at the station the relief column was moved towards the rail station. In the simulation, forces become routed as a result of a combination of battlefield actions. In some cases, the number of weapon systems fire massed against an element and the number of hits received can cause a unit to become routed. The loss of contact with a unit's immediate leader through either isolation or combat loss can also lead to a unit being routed.

During the control iteration of the simulation the Chechens routed the main body of the 131st MRB at the rail station in approximately thirty minutes. The rout caused the remaining battalion from the 131st MRB to come to the failing unit's relief under manual

---

[54] Knezys & Sedlickas, 100-101.

control. In the control iteration as in the actual battle, the relief column did not reach the rail station and the Chechens destroyed the column in an antitank ambush along narrow streets near the station.[55] The Russian losses are presented as percentages of Russian vehicles destroyed because the Russian force consisted of primarily armored vehicles. The Chechen losses represent the percentage individual fighters killed out of a battalion of four hundred.

Control Iteration of 131st MRB Rail Station Engagement

Unit/Result	131st MRB	Abkhaz BN	Engagement Result
Force Losses	85%	10%	Russians lose Train Station

In the control engagement between the 81st MRR and the Muslim Battalion the combination of softer skinned vehicles and execution of a linear ambush reduced the time required to destroy the formation. In the actual battle the 81st MRR, with an attached battery of self-propelled artillery, approached the Presidential Palace along the major avenue leading to the palace, Pervomaiskaya Street. The Chechens fired on the column as it approached the main square adjacent to the palace. During the control iteration steps were taken to replicate the action as near to the actual sequence as possible. The Chechens attacked the lead vehicles in the column first, followed by the vehicles in the rear. Then the Chechens destroyed the remainder of the vehicles caught in the center of the column. After twenty minutes the Russian column could no longer function as an organized unit. Individual vehicles fought for survival while the Chechens hunted them down. Vehicles outside the linear ambush along Pervomaiskaya Street tried to relieve the forces in the ambush and continue towards the Presidential Palace. The Chechens

---

[55] Knezys & Sedlickas, 98-102.

destroyed these elements of the 81st MRR because the restricted city terrain prevented the massing of Russian direct fires.

Control Iteration of 81st MRR Engagement along Pervomaiskaya Street

Unit/Result	81st MRB	Muslim BN	Engagement Result
Force Losses	88%	2%	Column destroyed & fails to reach PP*

* PP = Presidential Palace

The results of these two control iterations replicate the events that occurred in Grozny. In both engagements, the Russians lost nearly all their vehicles while the Chechens sustained relatively light casualties. Losses in the rail station engagement mirrored that of the actual battle. The Chechens captured the rail station and defeated the relief column sent in to rescue the 131st MRB. As in the actual battle, the Chechens destroyed most of the 81st MRR along Pervomaiskaya Street preventing any of these elements from reaching the Presidential Palace.

OBSERVATION OF MODIFIED ITERATIONS

With the establishment of two control scenarios for comparison, the modified variables were introduced to test the effect on the outcome of the simulation. These variables include more dismounted infantry, an increase in Russian training proficiency, a combination of the two, and a training increase beyond the Chechen's value. The only change to the scenario will be the new variable. All other conditions remain the same.

The first modified variable tested was an increase in the number of Russian dismounted infantry. The Russians failed to provide enough infantry to protect their armored vehicles in the 131st MRB and 81st MRR. Some of the motorized infantry

remained mounted while other armored personnel carriers deployed empty without full

dismounted squads. To test this concept using the simulation, all the vehicles in the

scenario order of battle were deployed with full infantry squads on board to provide

increased dismounted security. In the 131st MRB engagement at the rail station, each

team dismounted and moved to the nearest structure to provide local security for the

nearest vehicle as a manual input in the iteration. Vehicles such as tanks had squads

deployed near them to provide local security. By increasing the number of dismounted

infantry soldiers around the rail station and using them in the subsequent fight, the

Russians killed more Chechens but were eventually destroyed. The relief column did not

fare any better that the 81st MRR. Unprotected armored columns moving quickly in the

city do not fare well.

Infantry Increase Iteration of 131st MRB Rail Station Engagement

Unit/Result	131st MRB	Abkhaz BN	Engagement Result
Force Losses	93%	14%	Russians lose Train Station

Increasing the dismounted infantry gave the Russians a better chance of detecting

the Chechen forces. Often the Chechens could not engage the armored vehicles without

receiving return light weapons suppressive fire. The suppression fire reduced the

accuracy of Chechen fire. The Russians identified the Chechen RPG teams as they moved

into position. The Chechens needed more RPG teams and ammunition to destroy the

vehicles. Consequently, the Chechens suffered more casualties as a result of Russian

dismounted security around the vehicles at the train station.

However, the extra infantry provide no additional advantage to the 81st MRR

because it was moving when attacked and, therefore, the infantry remained mounted until

engaged. Once a vehicle was engaged, the troops were usually exposed and unable to find cover and concealment. Consequently, adding infantry did little to improve protection for the column during the approach to the Presidential Palace. The presence of dismounted infantry in the 81st MRR did increase the number of Chechen casualties but did not alter the outcome.

Infantry Increase Iteration of 81st MRR Engagement along Pervomaiskaya Street

Unit/Result	81st MRB	Muslim BN	Engagement Result
Force Losses	89%	8%	Column destroyed & fails to reach PP

The training proficiency of Russian forces was altered using the scenario editor. To test the impact of training, the Russian's training values in the order of battle were increased to equal the Chechen values. The scenario editor controls the effectiveness of replicated units by establishing percentages of efficiency from 30 to 250%. Included in this was an increase in the spotting and hitting proficiency of the Russians. These are skills that a well trained soldier or crew possess.

In the 131st MRB iteration, increased Russian training did not prevent the loss of the rail station yet they inflicted almost 50% Chechens casualties. The Russian vehicle crews engaged the Chechens with greater accuracy and defended themselves better. However, visibility from the armored vehicles was still poor. When the Russian armored vehicles came under small arms fire they buttoned up. In actual combat, armored vehicle crews would normally close all their hatches to remain under armor protection. The crews relied on the vehicle's vision blocks and sights to acquire targets. The simulation replicated these actions that limited the crews' visibility. Even though their training proficiency was high, the Chechen engaged armored vehicles at close ranges without

exposing themselves. This close range anti-tank fire destroyed a large number of Russian vehicles. An increase in training proved of little value to the relief column. The Chechens prevented the attempted rescue of the surrounded elements at the rail station.

Training Increase Iteration of 131st MRB Rail Station Engagement

Unit/Result	131st MRB	Abkhaz BN	Engagement Result
Force Losses	50%	40%	Russians lose Train Station

The 81st MRR faired much better when it engaged the Chechen forces at an equal level of training. The vehicles in the linear ambush reacted to contact well and killed 21% of the attacking Chechens. Yet a higher level of training could not overcome the disadvantages of being in a linear ambush. The force failed to secure the Presidential Palace and lost most of its vehicles along Pervomaiskaya Street.

Training Increase Iteration of 81st MRR Engagement along Pervomaiskaya Street

Unit/Result	81st MRB	Muslim BN	Engagement Result
Force Losses	73%	21%	Column destroyed & fails to reach PP

The results of the iterations in which only one variable was modified, more dismounted infantry and increased training, showed no significant change in the outcome of the battle. In each case, the Russians failed to achieve their objectives, mirroring the results of the actual battle. Therefore, the next logical step was testing a combination of these variables. These next iterations involved merging the equal training values of Russian Forces with an increase in the number of dismounted infantry in the 131st MRB and the 81st MRR.

In the combination iteration the 131st MRB was trained as well as the Chechens and had an infantry squad in every APC. The squads dismounted and provided local

security for their APC as well as nearby tanks as was done before in the increase infantry iteration. In this engagement the Chechens again seized the rail station but the relief column almost succeeded in reaching the rail station using their intended route of march. The Russians killed all the Chechen snipers and half of the thirty RPG teams yet still lost the rail station. The close nature of the terrain, their initial force disposition around the rail station and the numerous Chechen dismounted infantry simply overwhelmed the force in this iteration.

Combination Iteration of 131st MRB Rail Station Engagement

Unit/Result	131st MRB	Abkhaz BN	Engagement Result
Force Losses	48%	43%	Russians lose Train Station

The 81st MRR suffered significant initial loses even with the multiple modified variables. The better-trained, mounted infantry did not contribute to the engagement as they either died inside the lightly armored BTRs or after dismounting in the street. The vehicle crews reacted well to contact but could not overcome the effects of a linear ambush. The 81st MRR inflicted more casualties but still could not secure the Presidential Palace.

Combination Iteration of 81st MRR Engagement along Pervomaiskaya Street

Unit/Result	81st MRB	Muslim BN	Engagement Result
Force Losses	71%	23%	Column destroyed & fails to reach PP

Since the level of training seemed to have the most impact on the outcome another iteration tested the impact of a higher level of training. To test the scenario's sensitivity to changes in the level of training, the Russian forces training proficiency value was increased to 250% and the Chechen forces training proficiency lowered to

100%. When these values were assigned the simulated Chechen forces could no longer close with Russian forces. At the rail station, the concentration of Russian Forces allowed the 131st MRB (-) to successfully defend against the Chechen assault. However, the reserve element of the 131st MRB deployed to prevent the encirclement of the rail station by Chechen forces. The relief column deployed along the same route of march and broke through the Chechen perimeter on the north side of the rail station to relieve surrounded Russian forces.[56] With these additional forces, the Russians retained control of the train station and killed seventy-five percent of the attacking Chechen Forces.

Combination Iteration w/ (increased training) of 131st MRB Rail Station Engagement

Unit/Result	131st MRB	Abkhaz BN	Engagement Result
Force Losses	30%	75%	Russians retain Train Station

Increasing Russian training proficiency did little to help the 81st MRR's march to secure the Presidential Palace. While the Russians inflicted more casualties on the Chechens, they still failed to secure the Palace and lost over half their vehicles in the process. The linear nature of the 81st MRR's column formation significantly hampered their tactical effectiveness. While they killed more Chechens than before, their lightly armored vehicles, the BTRs, did not possess the armored protection or firepower required to defend against the Chechen ambush.

Combination Iteration w/ (increased training) of 81st MRR Engagement along Pervomaiskaya Street

Unit/Result	81st MRB	Muslim BN	Engagement Result
Force Losses	61%	27%	Column destroyed & fails to reach PP

---

[56] This was COL Andrijevski's intended route. Knezys & Sedlickas, 99-100.

After eight modified iterations, only the 131st MRB succeeded in its mission. The training improvement and the increased number of infantry provided better protection for the force at rail station. To examine the influence dismounted security had on the outcome, another iteration tested the impact of their removal. In this iteration the Russian forces training level was increased to 250% while the Chechens remained at 100%. However, no dismounted infantry deployed to provide local security for the armored vehicles. In this iteration the Chechens quickly closed with armored vehicles as in the other iterations without infantry support. The Chechens suffered significant casualties from the armored vehicles' return fire but managed to secure the rail station and destroy more than half the Russian vehicles. The relief column penetrated the Chechen perimeter around the station but failed to retake the building. An increased level of training alone could not overcome the lack of dismounted security in this iteration.

Increased Training Iteration without dismounted security of 131st MRB Engagement

Unit/Result	131st MRB	Abkhaz BN	Engagement Result
Force Losses	73%	55%	Russians lose Train Station

Clearly this iteration demonstrates the necessity for the protection of armored formations with dismounted infantry to provide security. In this simulation, even armored forces superior in training to their enemy required dismounted security to achieve successful results.

DATA COMPARISON AND ANALYSIS

Within the different iterations, increasing the training level had the most impact on the simulation outcome. The 131st MRB killed only fourteen percent of the attacking Chechens with the addition of dismounted infantry. The Russians killed around half the attackers when their training level of the 131st MRB equaled or exceeded that of the Chechens. Only the combination of a well-trained armored force protected with dismounted security had the ability to retain control of the train station.

The simulation suggests nothing could have been done to save the 81st MRR from destruction. In each iteration the Chechens destroyed more than half of the 81st MRR along Pervomaiskaya Street. Improvements in training and infantry support increased the number of casualties inflicted on the Chechens. In the combination iteration with a better-trained force, the Russians in the 81st MRR killed nearly one-third of the Chechen attackers. The 81st MRR, however, could do little to mitigate the effects of the Chechen linear ambush.

In examining the difference between the engagement of the 131st MRB and the 81st MRR, there are several significant observations. The first is lighter armored vehicles lacked adequate protection characteristics. Softer-skinned vehicles provided little protection in repelling RPG rounds in the simulation. Although cumbersome in an urban environment, heavily armored vehicles provide more protection against light anti-tank fire. The Chechens knocked out BTRs with one hit whereas T-80 tanks and BMPs could withstand a few hits from RPGs.[57] Armored vehicles require self-protection in the form

---

[57] Some destroyed Russian tanks had between five to twenty RPG hits. Kulikov, 37

of heavy armor in urban combat because the likelihood of close range anti-tank hits increases.

It is a poor tactical decision to commit an armored force into a potential linear ambush in urban terrain. The concentration of vehicles near the rail station gave the 131st MRB some depth while the moving linear formation of the 81st MRR offered little in terms of flexibility and mutual support. Even the heavily armored relief column of the 131st MRB suffered near complete destruction in many of the iterations. Advancing along multiple routes and properly clearing structures that dominate an intended route of march would prevent a force from entering a linear ambush. The Russian tactic of moving massed armored formations into a city to "shock" potential resistance into submission is clearly not effective against determined opposition.

Overwatch and mutual support of elements are critical in the urban fight. Vehicles as well as dismounted security teams must provide covering fire to units that engage in close combat. This gives the force in contact additional suppressive fire to repulse an attack. The close, limited ranges that characterize the urban combat environment sometimes negate this technique. As demonstrated in the rail station engagement, units that provide covering fire are often in contact themselves as a result of the reduced ranges. Units involved in urban combat must position their elements so units remain out of decisive contact while providing suppressive fire.

Improvements in training had the most significant impact over any of the other variables. If the Russians had deployed with troops that were better prepared and trained their chances of success would have improved. By deploying more untrained dismounted

infantry the Russians would have probably increased only their casualty count. In the urban environment, training makes the most significant difference.

IMPLICATIONS AND FINDINGS

This simulation of the New Years battle of Grozny suggests several factors critical to the application of armored forces in an urban environment. The simulated results were consistent with the analysis of the battle. The initial Russian assault of Grozny might have succeeded if the Russians had deployed better-trained forces to the region.

1) Proper training is essential. Of the modified variables, training was the most sensitive to change the outcome. This includes all levels of training from individual weapons proficiency to crew drills to unit level maneuvers.

2) Armored forces require dismounted security. There is no set number of infantrymen to tank ratio, but a balance is required between firepower and security. Tanks cannot operate without infantry nor can the infantry fight without tanks in an urban environment.

The streets canalized the simulated forces. Both the Russian and Chechen forces experienced this problem. Long streets under observation or occupation were death traps while the narrow passages and streets between buildings and movement through buildings provided complete cover and concealment. In urban combat, streets are true danger zones. Most of the Russian casualties in Grozny occurred in the streets. The

Chechens prepared holes in walls so they could travel laterally up city blocks without exposing themselves outside of the building.[58]

Dismounted security is essential. Armored forces in an urban fight are at a distinct disadvantage because they must fight at close ranges and against anti-tank weapons fired from above. Dismounted infantry can spot and suppress these dangerous elements before they fire. In the simulation as in the actual battle, many of the infantry teams died because they remained mounted in the vehicles while in contact with enemy forces. There is a point in an engagement when the infantry must dismount and provide security forward of the vehicle, while remaining close enough to maintain mutually supporting fires. There is a delicate balance between remaining mobile and remaining under armor protection.

A small force, squad sized with RPG teams could prevent an armored column from moving down a street. If the lead vehicles were destroyed and the vehicles maintained a close march interval, the column was usually decisively engaged and unable to maneuver. The buildings and narrow streets compounded the problem by restricting and preventing vehicle movement. Once committed down a street, it is difficult to turn an armored column around, especially under fire. This can lead to the "wandering" column, similar to what happened with the relief column of the 131st MRB.

The concentric rings of defense gave the Chechens the ability to reposition forces along interior lines. They defended the city from three directions with the focal point being the Presidential Palace. As the Russians attempted to penetrate the rings, the Chechens repositioned forces easier within a circular defensive scheme.

---

[58] CALL, G-2.

Casualties will be high in urban combat. The reduced ranges and complexity of the terrain require a dense concentration of forces that leads to targeting opportunities for the enemy. Urban areas magnify the effects of weapons, especially small arms. The streets, intersections, and open squares such as marketplaces become natural kill zones and engagement areas. Weapons such as the RPG become the new "king of battle" as their effectiveness increases due to the close engagement ranges. They are now more accurate and their usual targets, armored fighting vehicles and tanks, no longer enjoy the standoff range of an open environment. Armored vehicles move slower and are often stationary in the city while supporting the infantry's fight. Mobility is one of the key tenants of armored warfare. The urban fight negates two primary qualities of armored forces, mobility and armored protection.

This simulation suggests training definitely improves effectiveness. Training had the most significant single impact on the outcome of an engagement when the level of training and effectiveness of the Russians was improved. The complex, three-dimensional urban environment leads to quicker mental fatigue of a soldier as he is subject to attack from above, below, and all around. Training builds confidence and a soldier who is confident in his abilities able to handle combat stress and unknown situations.

The speculative assessments are true. Based upon the results of the simulation, more dismounted infantry and better-trained forces may have made a difference in Grozny. The battle for Grozny provides an example of how MOUT requires a tremendous amount of military resources and political will to seize a city from an armed opponent. The British describe the first phase of an urban combat operation as an "investment," or the encirclement of the urban area. It shows commitment as in the

earlier days of English history, the King "invested," or spent much of his resources encircling cities he laid siege to. What the Russians lacked was full political and military commitment to seizing Grozny. A much more substantial investment of trained and prepared units would have lead to a much more favorable outcome.

CONCLUSION

This computer simulation recreated the important elements in the initial battle for Grozny. While not an exact duplicate the factors that affected the outcome were present. The constricted nature of urban terrain, the number and types of weapons systems involved, and the ferocity of close combat all contributed in creating a near reproduction of the New Years battle. This replication permitted the testing of several subjective assessments of errors committed by Russian forces to determine their validity.

What the simulation suggests is that unless the Russians had deployed with better-trained soldiers, used dismounted infantry to secure their vehicles, and used a more methodical approach in assaulting the city block by block, it is unlikely the initial assault forces would have succeeded. The only successful simulated iteration involved Russian forces that had a level of training twice as high as the Chechens, in addition to proper local dismounted security. The combination of well-trained armored crews and dismounted security enabled the Russians to retain one of their objectives. In other iterations, no modification could overcome the poor tactical application of armored forces in an urban environment.
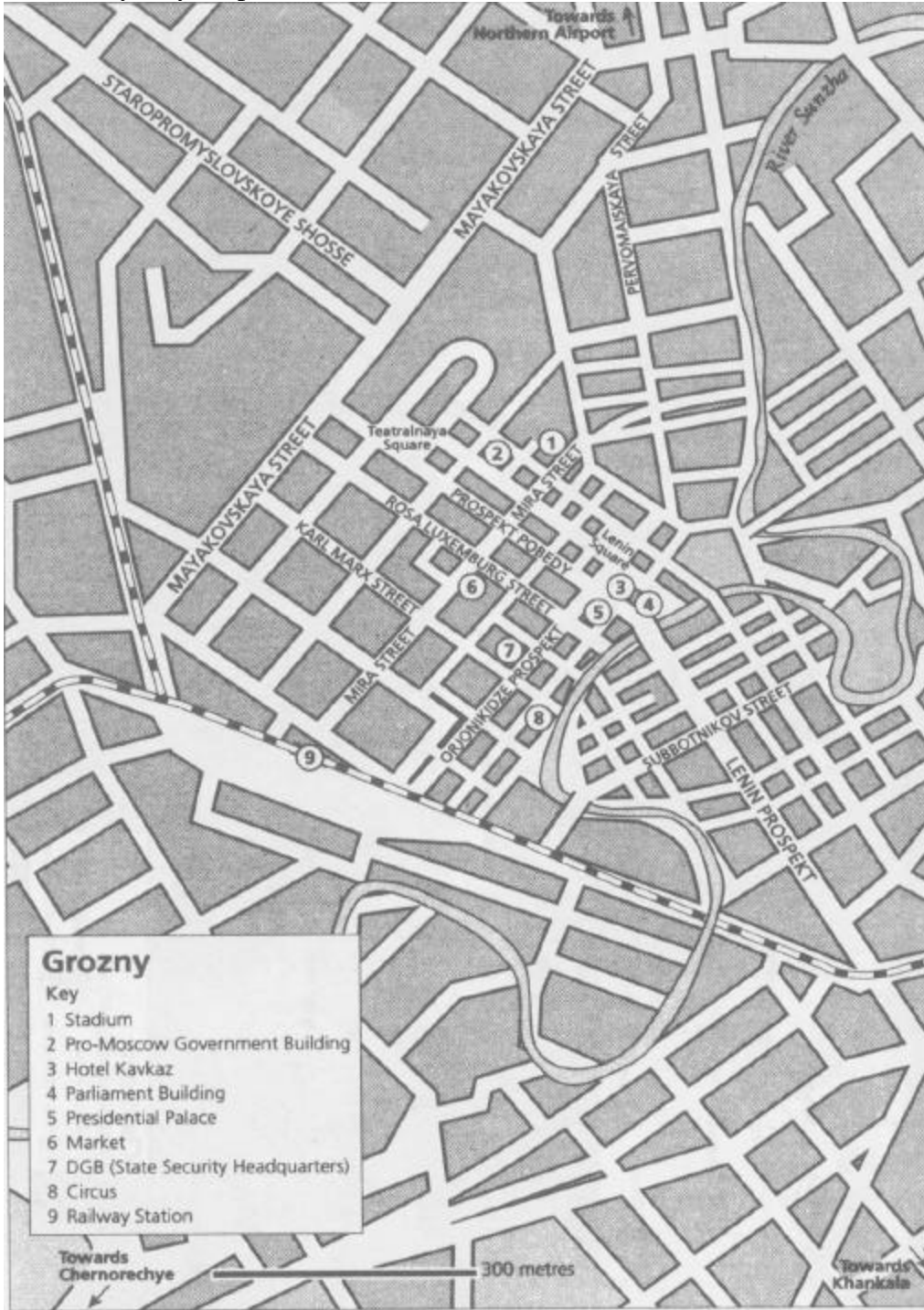
It is doubtful the Russians could have deployed the required forces into Grozny, Chechnya in December 1994. Based on the political and military events leading to the battle, the Russian government was unable to deploy trained troops to the region. The poorly conceived and executed plan to storm Grozny, based on prior successes in different political and military situations, had no chance for success. In addition, the Russians grossly underestimated Chechen resistance. All these factors contributed to the Russian defeat in Grozny. Urban combat is the most challenging combat environment requiring extraordinary preparations to ensure success.

The Russians may have achieved success in their initial battle if the two other assault groups from the East and West had been able to penetrate to the center of the city and they overwhelmed the Chechens with numbers. But casualties most likely would have been very high and it is questionable as to whether they could have sustained those forces in the city without secure lines of communications. The Russians ignored the urban combat lessons they learned years before.

Urban combat is fought at close ranges; visibility is often reduced to less than one hundred meters. Casualties are extremely high, physical as well as psychological, as soldiers can only endure the rigors of combat operations in urban terrain for a limited period of time. Throughout history urban fighting has been a difficult, costly affair. In the face of mounting possibilities for future urban combat, it is time to heed the lessons discovered time and time again by forces in urban combat, paid for by the blood of soldiers.

APPENDIX

Grozny City Map[59]

Grozny
Key
1 Stadium
2 Pro-Moscow Government Building
3 Hotel Kavkaz
4 Parliament Building
5 Presidential Palace
6 Market
7 DGB (State Security Headquarters)
8 Circus
9 Railway Station

Towards Chernorechye

300 metres

Towards Khankala

---

[59] Gall & de Waal, 384.

BIBLIOGRAPHY

<u>Books</u>

Cuthbert, S. J. *"We Shall Fight in the Streets."* Boulder: Panther Publications, 1965.

Dewar, Michael. *War in the Streets.* London: BCA, 1992.

Edwards, Sean J. A. *Mars Unmasked: the Changing Face of Urban Operations.* Santa Monica: RAND, 1998.

Fowkes, Ben. Ed. *Russia and Chechnya: The Permanent Crisis*. New York: St Martin's Press, 1998.

Gall, Carlotta & de Waal, Thomas. *Chechnya: Calamity in the Caucasus*. New York: New York University Press, 1998.

Glenn, Russell W. *Combat in Hell: A Consideration of Constrained Urban Warfare*. Santa Monica: RAND, 1996.

_____. *Denying the Widow-Maker: Summary of Proceedings RAND-DBBL Conference on Military Operations on Urban Terrain.* Santa Monica: RAND, 1998.

_____. *Marching Under Darkening Skies: The American Military and the Impending Urban Operations Threat.* Santa Monica: RAND, 1998.

_____. *"...We Band of Brothers:" The Call for Joint Urban Operations Doctrine*. Santa Monica: RAND, 1999.

_____. *The City's Many Faces*. Santa Monica: RAND, 1999.

Goldenberg, Suzanne. *Pride of Small Nations: The Caucasus and Post-Soviet Disorder*.London: Biddles Ltd., 1994.

Hoiris, Ole & Yurukel, Sefa Martin, Eds. *Contrasts and Solutions in the Caucasus*. Oxford: Aarhus University Press, 1998.

Knezys, Stasys & Sedlickas, Romanas. *The War in Chechnya*. College Station: Texas A&M University Press, 1999.

Lieven, Anatol. *Chechnya: Tombstone of Russian Power*. New Haven, CT: Yale University Press, 1998.

Nikolaev, Yu V. *The Chechen Tragedy: Who is to Blame?* New York: Nova Science
      Publishers, 1996.

O'Ballance, Edgar. *War in the Caucasus, 1990-1995*. New York: New York University
      Press, 1997.

Smith, Sebastian. *Allah's Mountains: Politics and War in the Russian Caucasus*. I.B.
      Tauris Publishers: London, 1998.

Turabian, Kate L. *A Manual for Writers of Term Papers, Theses, and Dissertations*. 6th
      ed. Chicago: University of Chicago Press, 1987.

Periodicals and Articles

Anatal, John F. "A Glimpse of Wars to Come: The Battle for Grozny." *Army Magazine*,
      50, no. 7(June 1999): 28-40.

Blank, Stephan J. "Russia's Invasion of Chechnya: A Preliminary Assessment."
      Strategic Studies Institute Special Report, January 1995.

CALL Staff. "Urban Combat Operations." *Call Newsletter*, November. 1999.

Geibel, Adam. "Caucasus Nightmare – Red Dawn in Chechnya: A Campaign
      Chronicle." *Armor Magazine* 104, no. 2, (March-April 1995): 10-15.

_____. "The Final Score: Russian Armor Losses in Chechnya Reflect Lethality of an
      Urban Fight." *Armor Magazine* 108, no. 2 (May-June 1999): 47.

Finch, Raymond C. "A Face of Future Battle: Chechen Fighter Shamil Basayev."
      Military Review 77, no. 3 (May-June 1997): 33-40.

Journal Staff. "Russian Military Assesses Errors of Chechnya Campaign." *International
      Defense Review*, April 1995.

Leaf, James D. "MOUT and the 1982 Lebanon Campaign: The Israeli Approach." *Armor
      Magazine* 109, no. 4 (July-August 2000): 8-11.

Klug, J. P. "Armor's Role in Future U.S. MOUT Doctrine." *Armor Magazine* 109, no.
      4, (May-June 2000): 7-11.

Peters, Ralph. "Our Soldiers, Their Cities." *Parameters* 26, no. 1 (Spring 1996): 43-50.

_____. "The Future of Armored Warfare." *Parameters* 27, no. 3, (Autumn 1997): 50-
      59.

Raevsky, Andrei. "Russian Military Performance in Chechnya: An Initial Evaluation."
    The Journal of Slavic Military Studies 9, no. 4 (December 1995): 681-690.

Robel, Michael K. "Three- or Four-Company Battalions." *Armor Magazine* 108, no. 2
    (May-June1999): 40-42.

Rupe, Chad A. "The Battle of Grozny." *Armor Magazine* 108, no. 2 (May-June 1999):
    20-23, 47.

Thomas, Timothy L. "The Russian Armed Forces Confront Chechnya: I. Military-
    Political Aspects 11-31 December 1994." *The Journal of Slavic Military Studies*
    8, no. 2 (June 1995): 223-256.

_____. "The Russian Armed Forces Confront Chechnya: II. Military Activities 11-31
    December 1994." *The Journal of Slavic Military Studies*, 8, no. 2 (June1995):
    257-290.

_____. "The Caucasus Conflict and Russian Security: The Russian Armed Forces
    Confront Chechnya III. The Battle for Grozny, 1-26 January 1995." *The Journal
    of Slavic Military Studies* 10, no. 1 (June 1995): 257-290.

_____. "The Battle of Grozny: Deadly Classroom for Urban Combat." *Parameters*
    29, no.2 (Summer 1999): 87-102.

Van Dyke, Carl. "Kabul to Grozny: A Critique of Soviet (Russian) Counter-Insurgency
    Doctrine." *The Journal of Slavic Military Studies 9, no. 4* (December 1996):
    689-705.

Warford, James M. "The Russian T-90/90S Tank: An Old Dog with Some Dangerous
    New Tricks." *Armor Magazine* 104, no. 2 (March-April 1995): 6-9.

_____. "Cold War Armor after Chechnya: An Assessment of the Russian T-80."
    Armor Magazine 104, no. 6 (November-December 1995): 18-21.

Academic Papers

Keller, Brian A. Intelligence Support to Military Operations on Urban Terrain: Lessons
    Learned from the Battle of Grozny. United States Army War College, Carlisle
    Barracks, PA. 2000.

Interviews

Kulikov, Anatoly Sergeevich, General, Russian Ministry of Internal Affairs. Interview
    given at RAND to Russell W. Glenn, May 2000. Transcript provided by Foreign
    Military Studies Office, Fort Leavenworth, Kansas.

Thomas, Timothy L. & Grau, Lester, Russian Analysts, Foreign Military Studies Office, Fort Leavenworth, Kansas. Conducted 24 August 2000 at Fort Leavenworth, Kansas.

Maps

Grozny City Plan. 1:25,000, Series Number N902, Edition 2. National Imagery and Mapping Agency.

Software

Steel Panthers Arsenal. *Steel Panthers II: Modern Battles*. Strategic Simulations Incorporated, Mindscape Company.