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PART I - CALCULATING THE FORCES

The first part of this narrative will deal with the problems of military evolution and the development of Russia’s military machine as well as the fighting condition of its enemies and friends in the course of the Southern Campaigns. The following section will be divided into two general chapters, subdivided into smaller sections, which will clarify certain aspects of military doctrine: the state of the armed forces, as well as the political context, in which the forces of the countries and societies developed. The narrative will begin with Russia and then move forward to the other major and lesser players on the geopolitical chessboard of the Pontic region.

CHAPTER 1
Russia’s Military Development

The question of Russian military capability during the eighteenth century has troubled both western and Russian historians for many years. Different authors present different notions on how Russia’s military development has to be measured. Questions whether there was a standing regular force or not, or whether Peter and his successors created a concise military machine or only improvised with the available resources and the existing military system are essential not only for the history of Russia but also for the entire Eastern Europe. This notion is due to the mere fact that this region was dominated, intimidated and challenged by the power of St. Petersburg. The following chapter will try to answer central questions regarding the development of Russia’s military strength during the first four decades of the eighteenth century. To appreciate the changes, which took place during this period, firstly the main trends of Muscovite military development will be discussed, since they were essential for the later transformations that took place under Peter I and his successors.

1.1. Military Revolution or Military Evolution? Problems and Debate in Military Historiography

In order to understand and evaluate the power of Russia under Peter the Great and to explain different aspects of the military power complex, the narrative is divided into several parts. The first part reviews the idea of the Military Revolution and its relation to the development of early modern Russia. The Military Revolution debate has existed for over sixty years after Professor Michael Roberts held his famous lecture in 1956.1 Ever since, military historians

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1 The term “Military Revolution” regards the process of rapid (according to the theory’s supporters) transformation of early modern warfare, which led to a series of changes in both the conduct of war and the structure and functioning of the early modern state. The time frame of this “revolution” is still a matter of debate.
of the early modern world have struggled to establish the exact boundaries and parameters of the Military Revolution. First Geoffrey Parker and later Jeremy Black, John Lynn and David Parrott have worked on different possibilities for explaining the Military Revolution and its impact on early modern state and society. Many other volumes have also addressed the same issue, criticizing, denying or supporting the Revolutionists’ theses.²

Nevertheless, the common feature of all these works is their emphasis on the Military Revolution in Western Europe and its impact on the development of European powers. However, none of these works establishes a strict boundary between what Europe is and what is not. For almost forty years, everybody has been talking about a European Military Revolution, but they referred to a small portion of European countries, concentrated in the western part of the continent. Furthermore, military establishment outside these states was overlooked and neglected. In some aspects, Geoffrey Parker tried to establish the impact of the Military Revolution outside Europe, but he only refers to the export of European-style warfare and does not take into consideration the developments that took place in the extra-European countries. These developments, however, often had nothing to do with European influence.³ Until recently there was no concise study on the military events in Asia in the context of Europe’s “revolution” in warfare. However during the past two decades, thanks to the ideas of globalization and supra-natural history, there have been attempts to apply the ideas of the Military Revolution in a greater scope, including the Asian states.⁴

In his book on Military Revolution in Asia, Peter Lorge tries to apply the standards developed by the Revolutionist historians to explain the development of East- and South-Asian warfare during the early modern period.⁵ However, the real value of his work is that he questions the entire revolutionary concept and suggests a different approach to the problem:

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⁴ Ever since Geoffrey Parker went beyond the boundaries of Europe, military historians have studied the development of warfare outside Europe, concentrating on Asia and the colonial possessions of Western European states.
There is no question that warfare changed markedly between 1500 and 1800 in Europe. But warfare also changed in Europe between 1200 and 1500, and 1800 and 2000. The debate very often turns on the definition of "revolution". A "revolution" is clearly more than a mere change, but in what way? Many of the objections to Parker’s arguments concern the mechanisms of change rather than the fact of that change. A rather more serious objection to the idea that there was a revolution is that there is always change in warfare, and the ‘revolution’ that Parker or Roberts describes was no different than any other change. Certainly any technology that was available in the late sixteenth century had precursors, and even infantry and cavalry tactics, or fortification designs, had been evolving beforehand.  

Unfortunately, Lorge does not further develop his idea, which gives the opportunity to elaborate on his thesis. It is an unquestionable fact that war and human society are bonded for better or worse. Hence, any development in one of them changes the other. One may argue that explaining the relations between war and society would be like the “the chicken or the egg” dilemma. However, this is simply not the case. If we go back to the origins of warfare, we will discover that if a war is to take place, there must be at least two organized human societies to fight in it. Thus, there can be no war, unless there is a society to develop the idea of war, to create some kind of military force in order to win the war and finally to take advantage of the gains or losses of the conflict. Therefore, it is the development of human societies with their culture, technology, economics, administration and idea of government and religion that shape the way wars are fought. This notion, however, does not mean that wars cannot change human societies. A product could transform its creator, and in all spheres of human development we can find proof of this fact. If there is a revolution in warfare, first there has to be a revolution in society.

Still, as the early modern period illustrates, there were no revolutionary changes in the development of European societies during this period. There was indeed a development, but it was relatively slow and steady, and it took centuries before the medieval societies were completely transformed into modern ones. In the same sense, it took centuries before war was modified in the fashion, suggested by the Military Revolution theory. Without diving deep into the debate, also it can also be pointed out, that historians like Clifford Rogers and Jeremy Black imply the existence of several Military Revolutions that took place between the 1340s and 1790s.  

Indeed, a lot has changed for these three and a half centuries, but human logic requires that these changes should be perceived not as a series of separate revolutions, but rather as an evolitional process. Furthermore, changes in warfare are taking place ever since war exists.

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6 Ibid., 19.
If the Revolutionist idea is developed further, this will lead to the conclusion that there was a Military Revolution almost each century in the past 2,500 years. Therefore, it would be incorrect to remove warfare developments during the early modern period from the context of the general military development. Instead of having more than, say, a hundred military revolutions, it would be much easier to accept the idea of evolutional development, which was often accelerated by important discoveries in the fields of science and technology.⁸

So far, only a handful of concise studies elaborate on Russia’s response to the changes in warfare that took place during the sixteenth and the seventeenth centuries. Among them are the works by R. Hellie, M. Poe, J. Keep and M. Paul.⁹ While Hellie studies the transfer of seventeenth-century Russian warfare into the “new style” army of Peter the Great, Paul dedicates his work entirely on pre-Petrine period and examines the influence of western warfare on Muscovy’s military conduct.¹⁰ Keep, on the other hand, presents a study of the continuous development of the Russian army and seeks the roots of the eighteenth and nineteenth centuries’ reforms in the evolution of the Muscovite state. Another point of view is presented by Poe, who tries to fit Muscovy into the overall development of the Military Revolution debate. The main advantage of these works is that they are very informative and present considerable data, which could be applied to a concise evaluation of Russia’s eighteenth-century development and military potential.¹¹ What the studies lack is the Russian perspective on the issue and all changes are measured by western standards. Differences between the East and the West are often labeled “backwardness” and condemned as failure. Unfortunately, the general approach toward the East and more precisely toward Eastern Europe has not changed for quite a long time. While Western Europe rediscovered Asia and Africa, led by different cultural and political motives, Eastern Europe still remains outside the general scope of Western European historiography. One of the tasks of the current work is to

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⁸ Indeed Clifford Rogers suggests the idea of a punctuated equilibrium evolution, but he fails to develop it and leaves his theory rather incomplete. This thesis argues that the development of warfare was a process in which each step was related to the previous and the following through social, technological and cultural links. The invention of crucial innovations accelerates greatly the military evolution process. Certainly, it is not a steady, straight continuum, but rather a scale of ups and downs, influenced by the technological development of mankind. Thus, it is better to talk about technological rather than military revolutions, since technology has proven itself to be the thing that revolutes human society in a matter of years. The same frame could be applied to social change in the early modern period. The evolution of society has been accelerated by certain events and ideas such as the Reformation, the Counter-Reformation and the theories of the Enlightenment. It was the French Revolution, however, that truly revolutionized the idea of social development.


¹⁰ I will use R. Hellie’s term “Petrine” in order to address different elements of Russian development under the reign of Peter I Romanov (r. 1682-1725).

¹¹ Keep makes broad and systematized estimates of Russia’s military potential.
reverse this process and shed light at least on the Russian military evolution and the reasons why it differed from the western path.

1.2. Muscovy’s Path to Power

The second trend essential for understanding Russian power requires a new look at the main factors which influenced the military evolution in the Russian lands. These factors could be divided into two broad categories – internal and external. The internal factors are related to the administration of the Russian lands: their vastness and character, as well as the size and the composition of their population. The external factors are related to the influence of the Mongols on the development of Russia’s army, the character of the neighboring lands and states and the type of armies that threatened Russia’s borders.

The administration of the Russian lands was a complicated issue ever since the disintegration of Kievan Rus during the late twelfth century. The vast territories between the Baltic Sea and the Volga River were fractured into dozens of small principalities, each claiming the right to inherit the title of “grand prince” and rule as a suzerain over the other states. Thus, a state of constant small-scale warfare developed in which several principalities allied against each other and fought for prestige and control over trade and taxes. The core of each army was the elite cavalry unit (druzhina), which could be enhanced by allied or mercenary cavalry. In the rare cases when infantry was required, it was levied on the growing number of serfs (krestyane), which lived in the principality and served the prince or his vassals. The pre-Mongolian Russian forces were small and irregular, and the quality of their infantry was nowhere near the experienced English, Flemish or Swiss footmen. When the Mongols arrived in the first half of the thirteenth century, their experienced, well-organized and numerous hordes had no trouble defeating the disintegrated Russian forces and expanding their political influence over most of Russia. The “Mongolian yoke”, as Russian historians tend to describe the following two and a half centuries, brought one main significant change in the development of

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12 In the following pages, I will use Russia and Muscovy as interchangeable terms prior to Peter I’s rule. In fact the question when exactly did Muscovy become Russia is still open to debate. Western historiography often places the end of this transformation in 1721 with Peter’s enthronement as Emperor of All Russians, while Russian historiography puts Ivan IV’s reign as the watershed between Muscovy and Russia.
13 The first united Russian state. It was governed by the Rurik dynasty and controlled most of present-day Ukraine, Belarus and South-Western Russia.
14 This small-scale warfare was also influenced by the nature of the Russian lands. Infantry was quite unnecessary, since the great distances were an obstacle for the usage of a regular force of footmen. Instead, Russian states relied on cavalry units – druzhina, formed from prince’s personal household and his vassal nobles.
15 The druZHina units of other Russian princes or steppe mercenaries - most commonly Kipchaks (Cummans) and Alans.
16 For more information regarding western infantry development, see Rogers, “The Military Revolution “, 55-95.
Russia’s art of war – the cavalry archers.\textsuperscript{17} This development, combined with the expansion of serfdom and the vast distances on which campaigns were carried out, led to the general decline of the infantry.\textsuperscript{18} The revival of infantry as equal participant on the battlefield remained a feature only of western warfare. Here, it is essential to note that this lack of adequate infantry does not necessarily imply that Russian warfare was falling behind the western one. If a successful application of infantry was possible in the limited fields of France, the Low Countries, and Germany, or was the best solution for war issues in the Highlands and Switzerland, this was certainly not the case in Russia. It suffices to say, that no infantry could keep up with constant marches over several hundred kilometers through a vast sea of grass, harassed by horse archers, who could destroy any infantry formation. Then we could argue that an infantry “revolution” in the manner, suggested by C. Rogers, was inapplicable to Russian conditions and that the general use of infantry against the Mongols and other Russian knyaze was doomed to fail.\textsuperscript{19}

After the expulsion of the Mongols and the unification of the Northern Russian principalities under Muscovy, the ground was clear for the establishment of a new military system, which would bring Russia closer to western development and would return the general logic of military development, implied by Western historians. That, however, did not happen. Instead of limiting the size of the cavalry and expanding the infantry, the grand knyaze of Muscovy integrated other rulers’ druzhini into their army and made conquered rulers part of Muscovy’s nobility.\textsuperscript{20} Noble cavalry, armed with bows and lances, remained the dominant force in Russia. Furthermore, the cavalry contingent was expanded by the inclusion of the Cossacks into the military system of Muscovy. These semi-independent free-raiders were an excellent supplement to the heavier noble cavalry units. Infantry remained irregular and was used in rare occasions, mainly as garrisons. But why did this happen? Why did not the grand knyaze change their manner of war after they managed to unify Russia into a single state? Again we must return to the reasons, listed above. It was not backwardness but pure necessity that influenced the military

\textsuperscript{17} Instead of relying on the strong, heavily armed horsemen, the Russian reformed the druzhina and supplemented it with lighter cavalry, armed with bows and spears, resembling the Mongolian fashion. Thus, while in the West gothic knights and later gendarmes dominated the fields of Europe, mobile mounted warfare, based on firepower and maneuverability determined the way war was fought among the Russians. For an exhaustive study of Muscovite armament during the late medieval period, see A.N. Kirpichnikov, \textit{Voennoe delo na Russi v XIII-XV vv.} (Leningrad: Nauka, 1966).

\textsuperscript{18} The main exception were the urban garrisons.

\textsuperscript{19} Rogers, “The Military Revolution”, 55-95; the idea of the lack of usefulness of western infantry models in Russia was also applied by Michael Paul. (Paul, “The Military Revolution in Russia”, 36-7) Yet, Paul implies that the Military Revolution did not succeed in Russia or was greatly delayed. What the present dissertation argues is that military evolution did take place in the same time as in Western Europe, but in Russia it had its own pattern of development.

\textsuperscript{20} For example, the Shuisky Family from Pskov, who later served as field commanders under Ivan IV (r. 1533-1584) and held a high position in the state administration. For the building of Muscovy’s forces, see A.V. Chernov, \textit{Vooruchennye sily Russkogo gosudarstva v XV-XVII v.v.} (Moscow, 1954), 17-43 (http://nozdr.ru/militera/research/chernov_av/index.html - accessed on 15th August, 2016).
development of Muscovy. After the Mongols and other princes had been defeated, Muscovy found itself surrounded by states, which also used cavalry as the main striking force of their armies. Furthermore, all these countries were far from Russia’s heartland. Sending an expedition on more than a thousand kilometers was always a hard task, even without a slow-moving infantry with an enormous supply train. It was general logistical problems that limited the diversity of Muscovy’s forces. There was no developed road system and for half a year the land transport was impossible due to the rains and the transformation of grasslands into a sea of mud and marshes. Thus, rivers remained the only possible option and thenceforth the medieval Russians did manage to develop their river transport at a surprisingly high level. The predominance of the river transportation meant that campaigns had to be organized only in locations which were accessible by water. However, rivers had vast hinterlands that could be conquered only by a mobile and easy to transfer force, which was not entirely dependent on river transport. Cavalry seemed the only possible solution. The logistics problem was further complicated by the difficult supply of goods for the army. In the steppe, it was quite easier for a cavalry force to live off the land. The grass was found in immense proportions and horses could be used to carry the supplies of their masters. An infantry would require a supply train with oxcarts and a lot more provisions than a cavalry. Also, as noted above, a supply train would significantly reduce the speed of the army, and in the steppes, speed was essential for success.

Another problem that predetermined the importance of cavalry was serfdom. Since Muscovy’s economy was based on serfdom, it was the serf’s duty to produce and transport food supplies for the army, repair the roads, build boats for the river transportation, etc. Furthermore, unlike Western Europe, the wealth of a nobleman was not measured by his treasury, but by the number of serfs he possessed. It turns out that the only possible source for infantry recruits was also the main driving force of the state economy and the primary source of wealth for the nobility. It was against the interest of both state and nobility to allow the recruitment of peasants in the army. Unlike Western Europe, where the well-established bourgeois population was free of land labor and serfdom and could serve as the backbone of an infantry force, Russia did not

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21 The Principality of Lithuania (from 1569 The Grand Duchy of Lithuania), Poland, the State of the Teutonic Order and Livonian Knights, the Siberian and Crimean Khanates and the Khanates of Kazan and Astrakhan. All of these states preferred mounted warfare, due to the same reasons that influenced Muscovy – huge distances, tradition of noble cavalry usage, the impact of serfdom, as well as the general weakness of western style armies, when applied to the vast spaces of the East. The Teutonic Order is an interesting case of how a heavy armored western army had to adapt to the conditions of steppe warfare.

22 Starting with the Viking experience in the Eastern European Rivers and continuing to the trading system of the medieval period.

23 The levying of cavalry was limited in numbers as the gathering of footmen would mean a greater number of men, who, unlike horses, could not live on water and grass.

24 For an exhaustive narrative, regarding the impact of serfdom on Russian state and society, see R. Hellie, Enserfment and Military Change in Muscovy (University of Chicago Press, 1971).
possess a significant or well-developed free urban population that could be used by the knyaze as the core of infantry units.  

With the advance of Muscovy in western and southern direction, however, its forces faced a new issue that had not been a problem during the fourteenth and the fifteenth centuries – fortified cities. The cities of Pskov, Smolensk, Kazan and Astrakhan were well fortified and a new type of force was required for their conquest – artillery.  

When need occurred, Muscovy was fast to evolve and met this necessity by developing a large siege train. Breaching the walls was one thing and maintaining the conquest was quite another. Thus, Russia finally needed to develop an infantry unit capable of seizing the city once the artillery had played its part. Furthermore, the expansion of firearms called for better garrison units for the frontier defence. Firstly, at the beginning of the sixteenth century an irregular type of gunmen was developed. They were called pishalyniki and their first appearance on the battlefield was during the final siege of Pskov in 1510. However, these units were irregular and were disbanded after the end of the campaign season. The next step in the development of the Muscovite infantry was taken by Ivan IV and was again a response to his plans for militant policy. The growing power of Poland-Lithuania and Sweden, combined with the weakening of the Livonian Confederation called for more substantial infantry force, which could be used to attack and later garrison the conquered fortresses in Livonia, Samara, and the Lower Volga. Thus, the streltsy were established. Fortunately for Russia, the creation of a standing infantry force coincided with the expansion of firearms infantry in West. Russia did not hesitate to adopt the mass usage of firearms in the infantry, and it turned out that most of Russia’s infantry were now armed with handguns. Again there was a difference in tactics. While western harquebusiers participated actively in open engagements, the streltsy were seldom sent into pitched battle, instead of being used against fixed positions or fortifications. Often protected by cavalry, they fired upon the enemy from wooden platforms, behind moats or fascines, or from mobile wooden fortifications (gulyay-gorod — literally ‘moving city’) some of which were three meters wide and erected specially for the occasion. The defensive tactic was more a response to the specifics of the landscape, than due to the backwardness of Muscovite generals. Unlike the broken terrain in Western Europe, the steppes of Eurasia were flat, and a cavalry could easily

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25 In terms of either forming a militia or levies, or using them as mercenaries.
26 Although firearms were well known in Russia ever since 1382, but it was under Ivan III that the Muscovites began to create an efficient artillery force, see A.N. Kirpichnikov, *Voennoe delo na Rusi*.
27 Paul, “The Military Revolution”, 29; According to Michael Paul over 150 cannons were used in the siege of Kazan in 1552.
28 Ibid., 20; Chernov, *Vooruzhennye sily*, 17-43; Chernov estimates a force of 1,000 pishalyniki during the siege, after which 500 were left as a garrison.
29 This was nothing unusual since disbanding the army at the end of the campaigning season was the general practice among all European states during the first half of the sixteenth century. Thus, Russia was on the same level as western states and not falling behind as is the general concept; see Paul, “The military Revolution”, 20.
flank an unprotected infantry. In order to resist enemy cavalry attacks and cover the movement of their mounted soldiers, the streltsy mastered the usage of field fortification. The problem of supplying food and ammunition in the large distances made it necessary to station the strelcy in towns, preferably near bigger rivers.\textsuperscript{32}

The last two decades of the sixteenth and the first twenty years of the seventeenth centuries were troublesome for Russia. The death of Ivan IV and the ruin of Muscovy after the wars against Poland-Lithuania, Crimea, and Sweden, were followed by the notorious “Time of Troubles”. During this great internal and external strife, Muscovy’s military potential was crippled and the lack of strong central government prevented the immediate adoption of the latest Western military techniques.\textsuperscript{33} After peace was finally restored in 1619, Muscovy had lost Smolensk to Poland-Lithuania and Ingria to Sweden. Further expansion westward would indeed lead to a catastrophe and Mikhail I Romanov (r. 1613–1645) decided to redirect his state’s effort towards the east. General peace on the western frontier and the swift success in the east further prolonged the adoption of necessary reforms in the army. Things changed under Mikhail’s successor – Aleksey I (r. 1645–1676).\textsuperscript{34} After the conquest of Siberia had brought new lands and revenues to the crown, Aleksey decided to turn his attention toward Poland and the Baltic coast. He was fast to realize the necessity for reformation of the army and for most of his reign he fought to establish a force, which could prove a match to western standards. In order to fight Sweden and Poland-Lithuania, Aleksey developed “regiments of new formation” units that were in part commanded by foreign officers and fought in the same fashion,

\textsuperscript{32} Positioned there they could be resupplied through river transport coming from Moscow. In addition, they were well-acustomed in defending positions such as riverbanks and walled cities. (А.В. Чернов. Vooruzhennye sily, 43-75; Kirpichnikov, Voennoe delo na Russi) Furthermore, Ivan IV established a system of settling the streltsy. Thus, in peace time, they had to support themselves by trade and by working their land and selling the harvest. Since the Muscovite state was not rich enough to pay regularly salaries to its soldiers, the central administration decided to grant land in exchange for service. This system was also applied toward the nobility. In general, it was built on the same basis as the earlier Byzantine themata system and the later timar system in the Ottoman Empire.

\textsuperscript{33} Here it is reffered to the military reforms that took place in the Dutch Republic and Sweden. The rearrangement of ”shot units” and, more importantly, the application of light field artillery did not take place in Muscovy up until the seventeenth and even eighteenth century The heavier siege artillery was not up to date with the newer and better guns developed in the context of the Thirty Years’ War. Even after Muscovy was unified under Mikhail Romanov in 1613, it lacked sufficient resources to reform its forces. On the other hand, David Parrott argues that the first half of the seventeenth century did not bring any major changes in warfare but instead proved that western states could not response adequately to the new necessities, imposed by the growing armies. He concludes that actual changes took place only after 1660 with the establishment of centralized absolutist states, giving France, Sweden and Prussia as examples. It could be argued that Muscovy was again up-to-date with the West since reforms in the Muscovite army began after 1654, during the Thirteen Years’ War. Nevertheless, social conditions and lack of revenue prevented the adoption of a standing army during the reign of Aleksey I.

\textsuperscript{34} The first western-style reforms were actually introduced in 1631, when Muscovy was preparing for the Smolensk campaign against Poland-Lithuania but their success was temporary and uncertain. Therefore, it is better to perceive Aleksey as the actual reformer of the Muscovite force, since a qualitative change in the fighting style of the Russian army took place under his reign; See А.В. Чернов Vooruzhennye sily, 133-56, where the author is quite critical toward the state of Muscovy’s military power during most of the seventeenth century.
applied by armies in Germany. The war against Poland was successful and brought back some of the territories, lost during the “Time of Troubles”. War with Sweden resulted in a status quo ante bellum, but nevertheless, the Russians managed to hold off the Swedish army, regarded as one of the best forces in Europe during this period. However, Muscovy did not manage to produce a regular standing force and this is probably the main disadvantage of its military evolution.

1.3. Aleksey’s Inheritance

To fully appreciate the reforms, introduced by Peter I, the general condition of the Russian army under his father, Aleksey must be presented. The second ruler of the Romanov dynasty governed Muscovy in a period of crisis and expansion during which the Russian state embarked on several aggressive campaigns against its neighbors.

During his long reign Aleksey’s primary purpose was to elevate the military power of Russia to a new level, a level from which it could match and if possible – overpower its enemies on several fronts. Whether his efforts were successful or not is still a matter of debate. W. Fuller, always critical of Russian military power, points out that during the first half of the seventeenth century Russia did not possess the potential to wage offensive wars. He places logistics as the main issue behind Russian failure on the battlefield during Aleksey’s reign and the Crimean Campaigns of 1687 and 1689. However, he does acknowledge that apart from Sweden Russian military technology was superior to that of its neighbors. J. Keep points out that the army of Aleksey suffered from three major disadvantages – lack of money, high level of desertion and low morale. Regarding the capability of the Muscovite forces, Keep is rather

35 It was under Aleksey that western officers began to play a greater role in the officer corps of Muscovy. Since the Russians did not have the time to create their officer corps (the Thirteen Years War began only eight years after the accession of Aleksey), foreign mercenaries and volunteers were used to accelerate the modernization of the Muscovite force. As Richard Hellie notes, the tradition of a non-native officer corps was not an “invention” of Peter I but was developed under the reign of Aleksey I in the middle of the seventeenth century. One might suppose that this was a general weakness of Russian military advance, but then the same should apply to western powers as well. Half of the military leaders and a great part of the army in most European states were foreigners. Austria relied on German, Italian and Bohemian specialists. France imported Italians, Germans and Scots. Spain had a long tradition of hiring Italians and Flemish to command their forces. Even Sweden did not hesitate to use foreign generals, the most famous example being Bernard of Saxe-Weimar. This situation did not change even during the War of the Spanish Succession when some of the major military leaders were still foreigners with regard to their subordinate armies. Notable examples are Prince Eugene of Savoy, the Duke of Berwick, the Dukes of Baden and Lorraine. Furthermore the number of foreign experts was insignificant in comparison to the number of native Russian officers, who served in the army; See N.L.Volkovskiy and D.N.Volkovskiy (eds) Vse Vony – Mirovoy istorii po Khaperskovy entsiklopedii voennoy istorii, 1500-1750, vol. 3 (Moscow and St. Petersburg, 2004), 421; The German manuals of war were the most popular in Russia. Furthermore, the reforms of Mikhail I and Aleksey were carried out parallel with the Thirty Years War (1618-1648) and most of the foreigners, hired to transform the Muscovite force had served in that war. Thus, the general experience accumulated in Germany was transferred to Russia.
36 The Russo-Swedish War of 1656–1658.
37 Fuller, Strategy and Power, 25.
unimpressed, although he calculates a twofold increase in the army strength in comparison to the previous century. Russian historiography offers a different evaluation. Although admitting the logistical problems, Chernov stresses the importance of military reform and the gradual strengthening of the Russian army. He points out that the expenditure of “new-model” regiments and the shift in the ratio between cavalry and infantry were major signs of the beneficial changes that took place during the reign of Aleksey.38 His opinion is further supported by V. Volkov and N.L. Volkovkiy who emphasize the importance of firearms distribution and the development of gun-wielding infantry during the seventeenth century.39

We can, therefore, deduce two main challenges which stood on the way of Russia’s military development during the seventeenth century – the general struggle toward improvement of the quality of the army and the series of problems regarding the supply of this army faced by the central government.

**Army**

The army of Aleksey I was by no means a homogenous one. In his work on the Military Revolution in Eastern Europe Brian Davies distinguishes among fourteen different types of unit formation in the pre-Petrine Muscovite army.40 Keep and Volkonskiy tend to summarize these in fewer groups, but in general, the army was comprised of three main parts which fell into several subdivisions, as described by both Davies and Chernov.

First there were the “old-style” formations of the noble cavalry and the streltsy, the ratio of which, in the course of the seventeenth century, dropped drastically in comparison to the regiments of the new formation. Davies divides each group into two subdivisions. The nobility (dvoryane) regiments comprised of the upper Muscovite and provincial high nobles, on the one hand, and the petty provincial nobles, on the other. They formed centuries (sotnya) and while the first served in the tsar’s regiment, the second comprised the cavalry units. Each of these landlords had to provide a certain number of retainers, armed at his expense. As Chernov describes in detail, the armament of these nobles gradually changed and by 1675 ninety five per cent of the noble cavalry wore light firearms in combination with sabers and were able to carry out both ranged and hand-to-hand attacks.41 However, the overall condition of the noble cavalry was rather poor due to their low discipline, to the complexity of the logistics, as well as to the general trend of cheating the state by hiding their real income or sending ill-fitting men for retainer service. They were also ill-prepared for war as the compulsory early military practice took part following the summer

38 Chernov, Vooruchennye sily, 156-87.
39 V.A. Volkov, Voyny i Voyska Moskovskogo Gosudarstva (Moscow: Eksmo, 2004); Volkovskiy (eds), Vse Voyny - Mirovoy istorii, 415-8.
40 Davies, Empire and Military Revolution, 58-62.
41 Chernov, Vooruchennye sily, 156-87.
harvest and for that reason - often got neglected. In resonance to these embarrassments in performance, after 1654 Aleksey and later Golitsyn tended to redirect nobles from the old regiments into the regiments of the new formation. This trend explains why the noble cavalry dropped in numbers during the second half of the seventeenth century while the number of dvoryane and deti boyarskie grew in the regiments of the new formation.

The second significant element of the Muscovite old units was the streltsy. These elite infantry units were divided into two main categories – Muscovite streltsy and provincial streltsy. The main difference between the two was the amount of payment which they received from the state as well as the degree to which they could be perceived as “standing” units. While the capital regiments received better payment and had more regular military trainings, the provincial units were often engaged in farm work in order to provide for their families and balance the insufficient funds which the state paid them on yearly basis. In general, seventeenth-century Muscovy was unable to provide the required funds for an entirely state-funded standing infantry, and that is a fact accepted by all scholars who have studied the matter – both western and Russian. Therefore, the Romanov monarchs decided to apply the same general principle through which they financed the cavalry – the allowance of agricultural and petty financial activities, which were meant to compensate the lack of funds. On this basis, we could define the streltsy as landowning, semi-standing type of infantry, which differed from the newly formed regular units in Western and Central Europe. And while these Muscovite soldiers were of greater proportion compared to most western armies, their quality was falling behind.

The need to improve the field performance of the Muscovite forces drove the first Romanov tsars toward the conclusion that a general change in the military was required. To respond to the shifting balance of power on the western frontier, first Mikhail, then Aleksey began to develop regiments of the new formation, which applied the experience, accumulated in the Thirty Years’ War (1618-1648). These units were combined with the predominantly national-

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42Ibid.; Volkovsky (eds), Vsey Voiny, 419-21.
43 They were 8,000 in 1689 in comparison to the 78,000 soldiers of the new formation regiments. N.L. Volkovskiy, D.N. Volkovskiy (eds), Vsey Voiny, 420-21; In 1672 10 per cent of the service nobility were enlisted in the old cavalry regiments, while 50 per cent were enlisted in the new formation regiments, see Chernov, Vooruzhennye sily, 156-87.
44 For example, between 1657 and 1682 (25 years), the streltsy did not receive any payment from the state. That led to a rebellion during which Sophia, daughter of Alexey, was placed as ruling steward of Ivan V and Peter I who were underage at the time.
45 The first standing cores of Western armies after the Thirty Years War rarely numbered more than 15-20,000 in the case of Austria, and fewer than 10,000 in the case of most German states. To the contrary, during the sixteenth century the streltsy already exceeded these numbers. France and Spain are not applicable here, since these states continued to wage war and did not dismiss their wartime armies for longer periods of time. For the size of armies prior 1700s, see J. Childs, Warfare in the Seventeenth Century (London, 2001), 87-93.
based army in which the foreign element was rather insignificant in quantity if not in quality.\textsuperscript{46}

The regiments of the new formation can be divided into four types: \textit{reytary}, \textit{gusary} (cavalry), \textit{draguny} (dragoons) and \textit{soldaty} (infantry).\textsuperscript{47} As mentioned above, the greater and lesser nobility was gradually transferred from the old to the new regiments, setting the foundation of the new formation cavalry regiments. However, the new units also included the so-called \textit{vybornye ljudi}, who were free men, but not necessarily nobles. They were also given lands in return for their service since the state was unable to provide in full their annual salaries. Impoverished and landless petty nobles were conscripted into the infantry formations as well.

However, the flow of free men and service nobility was insufficient to meet the state’s needs, and enserfed men (\textit{datochnye ljudi}) were also conscripted into the army. They were sent to different regiments than the \textit{vybornye ljudi} and by the time of the Crimean Campaigns (1687, 1689) comprised a large portion of the regiments of the new formation.

The \textit{draguny} were novelty for the Muscovite army, and their ranks were filled in by conscripting entire villages, or by offering service to Cossacks in exchange for payment and firearms. During campaigns, the \textit{draguny} were used, together with the Cossacks, as light cavalry, scouts, workers, supporting the engineering units in times of entrenchment and siege, or as builders for the construction of roads for the army.

The \textit{soldaty} were the core of the new formation regiments and comprised the main body of Muscovy’s infantry. They were armed, drilled and formed according to western standards. When the first regiments began training, foreign (\textit{nemetskiy}) officers were invited from Germany. They included not only Germans, but Scottish, Dutch, and English specialists as well. However, with the onset of the century, more and more Russian officers began to command the soldaty regiments and by the end of Aleksey’s reign the vast majority of the upper and lower officer corps was comprised of natives. Like the cavalry, the infantry also had to be funded through land grants and many of the soldaty were settled in special villages or existing settlements were converted into soldaty villages.

Apart from these four state-supported types of forces, the tsars relied on auxiliary units, acquired from the steps of Ukraine, the lands along the Don and the Volga Rivers, and Siberia. These units comprised of different tribal bands.

\footnotesize{\textsuperscript{46}The dissertation lies in the basis of Russian military thought, while western authors tend to emphasize on the importance of foreign officers and specialists when they evaluate the Muscovite forces.}

\footnotesize{\textsuperscript{47}The \textit{reytary} were modeled after the cuirassiers, while the \textit{gusary} were influenced by Polish and Hungarian hussars. The \textit{draguny} or \textit{dragoons} were also borrowed from the West and offered a combination of light cavalry and infantry, using the mobility of the first and the firepower of the second. Finally, the \textit{soldaty} (soldiers) were modeled according to the pike and shot principle of western armies (Volkovskiy, \textit{Vsey Voiny}, 419); Brian Davies uses the term \textit{kopeishchik} (lancers) when referring to the hussar regiments; Davies, \textit{Empire and Military Revolution}, 61-2.}
and several Cossack hosts, which were to a greater or lesser extent subjected to the rule of the Muscovite tsar. Kalmyks and Circassians were the biggest ethnic groups which provided cavalry support to the Russian army, but lesser tribes also contributed with soldiers. However, it was the Cossacks who played the most significant part. In addition to serving in campaigns, these bands of adventurers and frontiersmen were skillfully used by Moscow to control the steppe borderlands of the Northern Black Sea and the Volga Basin. They also provided horses for the cavalry and garrisoned the forts and defensive lines (zasechnoy cherty) which protected Russian heartlands from the raids of Crimean Tatars and their Kuban allies.  

**Logistics**  

Though Muscovy was struggling to establish a modern adequate force capable of both offensive and defensive activities, this was hindered by the constant lack of funds for the army. Both Western and Russian historians agree that during the seventeenth century the Muscovite state failed to muster the resources, required for its military establishment. Although new taxes were introduced and increased, the amount of money, which could be extorted from peasants, was rather limited. State monopoly over some of the trading goods, such as salt, furs, and vodka, brought considerably more profit to the treasury but still a lot more was needed. Unlike smaller German and Italian states, Muscovy could not afford the luxury of keeping a small standing regular force. The frontiers, thousands of kilometers long, had to be protected at the cost of substantial force.  

To deal with the constant lack of funds, the ruling elite in Moscow decided to use the two primary resources of Tsardom – its rather large population and the abundance of land. The newly created cavalry units were compensated with land and often the vybornye lyudi received ennoblement when they entered service in the retyary or gusary regiments. This development gained them land and serfs which provided the required funds for sustaining the mounts and for purchasing new equipment. As mentioned above, the streltsy were reimbursed by allowing them to own land and to participate in trade and small-scale craftsmanship. The soldaty, on the other hand, were placed into individual settlements, which were exempt from certain taxes and received a small amount of state funding in exchange for their service.  

The income was based not only on taxation, but also on agriculture production and trade profits. However, after the “Time of Troubles” these were

48 More information about the Cossacks and the steppe soldiers will be provided in the Second Chapter of this work, see below.

49 By 1680, the population of Russia was around 14 million while its territory covered more than 9,000,000 km² (including Siberia). Russia was the third largest state in the region with regard to population (First was the Ottoman Empire with around 30 million and second was France with approximately 18 million, and first or second largest with regard to core territory (i.e. without the colonies), exceeded by the Ottoman Empire in 1683 (around 6,000,000 km²).
in a precarious situation. In the 1670s, the amount of agricultural land in the fourteen core provinces of the state had shrunk to sixty per cent of its size a century earlier. After Sweden had conquered Ingermanland during the War of 1615-1618, Russia was cut from the Baltic trade and Arkhangelsk remained the only Muscovite port, opened to European merchants. However, it was frozen for half a year, and since the time of Ivan IV, the trade there was dominated by the English. Furthermore, the Russians exported only raw materials, timber, hides, wheat and iron to the western manufacturers, but they were unable to sell any local industrial production. Weaponry, luxuries, even clothes and paper had to be imported, as well as spices, sulfur and saltpeter, needed for the manufacture of gunpowder. Industry remained underdeveloped and was unevenly positioned, mainly around Moscow and the Volga basin cities. Transportation was also complicated due to long distances, underdeveloped roads and river networks and because during spring and autumn the grasslands turned into marshes, drowned by rains and river flows.

These impediments were also evident during campaigns when shortages of supplies and ammunitions were obvious, even though Muscovy was able rather slowly to improve its logistics in the course of Aleksey’s reign. In order to cope with these problems, it was necessary to adopt a general reform of logistics and to expand trade and industry. The state also had to systematize and unite the many chancelleries (prikazy) which were responsible for the maintenance and muster of armed forces in order to ease and accelerate the process of army formation and eventually – its performance on the battlefield.

Golitsyn’s reforms in the 1680s

In the context of Russian military development the period that took place between Aleksey’s reign and Peter’s rule was most notable for Count Golitsyn’s reforms. He was a favorite of tsarevna Sophia and during her regency (1682–1689) he instituted a series of measures, which were meant to strengthen Russia’s military potential in order to cope with Tsardom’s new international role in the Holy League.

Following the disaster of the Russo-Ottoman War of 1676-1681, the authorities in Muscovy decided that certain measures had to be taken in order to improve the field performance of the Muscovite forces. The first step was to transform all nobles (dvoryane and deti boyarskie) into reytary and kopeishchiky regiments while everyone who was not part of the gentry had to be enlisted in

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50V.I. Moryakov. Istoriya na Rusiya IX-XVIII vek (Sofia: Paradigma, 2007), 179.
51The performance of the Russian army was far better during the Thirteen Years War (1648-1661) in comparison to the Smolensk War (1631-1634). However, during the Crimean campaigns the lack of provisioning was again evident.
52Following the “Eternal piece” (1686) between Muscovy and Poland-Lithuania, the tsardom was obliged to join the military effort of the Holy League against the Ottoman Empire in what was to become the War of the Holy League (1683-1699), also known as the Russo-Ottoman War of 1686-1700.
the soldaty regiments. Also, fellow-villagers of the soldaty were recruited as prokormshchiki. They had to maintain soldier’s lands and households and to provide food for the soldaty while the latter were on a campaign.

The second change included the reorganization of the urban garrison troops – the provincial streltsy, the Cossacks and the gunmen (lyudi pushkarskogo china). All men from these categories, fit for regimental service, had to be enlisted as soldaty. An exception was only made for those, who did not receive payment by the state, but were refunded through land. These soldiers could choose to serve one year as regimental troops (for which they received a soldat’s annual salary) or - one year as urban units, during which time they needed to earn money from their lands. Only the Moscow streltsy were kept intact, but their regiments were fixed at 1000 men each. The reform also affected the military ranks of the streltsy officer corps, replacing the golov with a colonel (polkovnik), the polugolov - with a lieutenant colonel (podpolkovnik) and the sotnik - with a captain (kapitan). The core territories of Muscovy were divided into nine military districts and each provided a certain number of soldiers for the state army. Unlike the old system, the new areas (razryady or okruga), included not only the borderlands but the inner territories as well.53

On paper, the army of 1680 was comprised of the following elements: 41 soldaty regiments – 61,288 (37 per cent); 21 regiments Moscow streltsy – 20,048 (12 per cent); 26 regiments of reytary and kopeishchiki – 30,472 (18.5 per cent); four Circassian regiments – 14,865 (9 per cent); supporting troops and urban garrisons - 37,927 (23.5 per cent); or 164,600 in total. These forces had to be backed by the Cossack Hetmanate with a further 50,000 increasing the total strength of the army to 214,600.54 The infantry was 49 per cent of the entire army. However, when we exclude the auxiliary troops from Ukraine, this percentage goes up to 72 per cent, which means that Muscovy’s army was no longer the cavalry force from the previous century.

In addition to these changes, Golitsyn reformed the number of prikazy, responsible for the upkeep of the army. He established three new chancelleries – Razryadniy prikaz, Reytarskiy prikaz, and Inozemskiy prikaz, which had to replace the old ones. However, the jurisdiction of the new prikazy was rather chaotic and they exceeded their authority in certain districts and regions.55

On the whole, the Golitsyn reforms were able to bring some consolidation in the army. However, they did not resolve the main problems, but rather swept them under the rug. The previous formations were not disbanded or reformed in means of armament and training, but were merged with the new formation regiments. This brought down the morale and quality of the new units. The lack of centralization and coordination among the military prikazy was reduced, but

53 The nine districts we as follows: Moskovskiy (Muscow), Severskiy (Seversk), Vladimirskiy (Vladimir), Novgorodskiy (Novgorod), Kazanskiy (Kazan), Smolenskiy (Smolensk), Ryazanskiy (Ryazan), Belgorodskiy (Belgorod) and Tambovskiy (Tambov); See A.V. Chernov, Vooruzhennye sily, 187-99.
54 Ibid.
55 Ibid.
not removed and, as the Crimean Campaigns demonstrated, Muscovy once again had to reform its forces in order to improve the army’s field efficiency – a goal, pursued ever since 1613.

The military evolution of Muscovy, up until the reign of Peter, calls for a general reapproach by Western military historians. It is essential to understand that Muscovy had its unique path of development, influenced by the geopolitical location of Russia. Contrary to the common belief, the events, often referred as Military Revolution, did take place in Russia generally at the same time as they did in the rest of Europe. The difference came from the background upon which the foundations of Russia’s military power were built. Nevertheless, firearms, standing units, recruitment of native troops instead of mercenaries and the application of specific tactics of siege and field combat were successfully applied.\(^{56}\) By 1689 Russia was able to muster the second largest army in Europe.\(^{57}\) This force was as good as many western armies, and it was certainly superior to most of its enemies. Therefore, when Peter I ascended the throne his task was not to create an entirely new army out of scratch, but only to build on the foundations, established by his predecessors.

### 1.4. The Petrine Army

The overall success or failure of Peter’s reforms is the main topic of the historical debate regarding Russia’s military power during the first quarter of the eighteen century. There are two points of view. The first argues that under Peter, Russia formed a strong, well-organized standing army that was drilled and equipped according to European standards and was far superior to its eastern counterparts. This idea is defended by C. Duffy in his work on Russia’s military development and also in R. Hellie’s article on the Petrine Army.\(^{58}\) Both works supplement each other presenting a concise picture of Russia’s military establishment since the reign of Aleksey I Romanov. The main weaknesses of Duffy’s approach are that it is too general and lacks a precise description of Russia’s forces. Hellie’s article is helpful in tracing Russia’s military development originating in the seventeenth century, but emphasizes too much on the continuity and rather neglects the innovations, made by Peter. These works are further supported by Russian historiography, which vigorously preserves the idea of a regular, standing army, created by Peter the Great. L.G. Beskrovnyy, K. Tatarnikov and V. Lystsov argue that Russia did develop a

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56 Introduced as early as 1653, when most other armies in Europe still consisted mostly of mercenaries, see Keep, Soldiers of the Tsar, 80-92.

57 For a comparison of Russia’s army to those in Western Europe; see Table 3 in the Appendix for the current chapter.

modern, European-style army under Peter and that this army was equal to its European counterparts.\(^{59}\)

The other side of the debate is taken by Peter’s critics. They claim that there was no such thing as regular standing Russian army under Peter. According to them, Peter’s military reforms were a response to military problems rather than a general strategy for army reformation. The chief proponent of this theory is W. Fuller who, in his book on Russian warfare during the Romanov period, argues that the Russia’s military was far from the mighty war machine described in the above-mentioned works.\(^{60}\) He gives a very critical overview of Peter’s military reforms and plans and concludes that in means of resources, development of society and government, Russia was quite unable to produce not only a regular but also a standing army. L. Hughes accepts Fuller's theses. In her book on Russia in the Age of Peter the Great, she repeats Fuller’s ideas, although her narrative lacks Fuller’s sharp criticism.\(^{61}\) Another critical study of Russia’s army under Peter is written by J. Keep. In his book Keep summarizes key issues and features of the Petrine army and opens a debate on the real quality of the Russian army during the first quarter of the eighteenth century.\(^{62}\) Furthermore, he gives exclusive statistical data on the expenditure of Russia’s military power in both funds and manpower.

**Army**

Most accounts of Peter’s military reforms begin with his early years and relate the future steps, taken by the Tsar, with the experience gained from the organization and training of the two “playtime” regiments – Semyonovskiy and Preobrazhenskiy.\(^{63}\) However, this is quite controversial. First and foremost, Peter was just a teenager who, like all young boys, had a romantic idea about war. Though he took his war game activities seriously, it would be too naïve to assume that his inspirations for an imperial army came only from a series of field games with several hundred of his companions.\(^{64}\) Another possible reason for his inspiration for military reforms was his “Grand Tour” in Europe when he

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\(^{59}\) L.G. Beskrovnyy (ed.), Poltava: K 250- letiyu Poltavskogo srazheniya; sbornik statey (Moscow: Akademia nauk, 1958); L.G. Beskrovnyy, Russkaya armiya i floot v XVIII veke (Moscow, 1958); K.V. Tatarnikov, Russkaya polevaya armiya 1700-1730. Obmundirovanie i snaryazhenie (Moscow: Lyubimaya kniga, 2008); V. Lystsov, Persidskiy Pokhod Petra I: 1722 – 1723 (Moscow, 1951); It is interesting to note, that Peter I, himself, referred to his army as a regular (regulyarnyy) force.


\(^{61}\) L. Hughes, Russia in the Age of Peter the Great (New Heaven and London: Yale University Press, 1998).


\(^{63}\) In Russian they are referred as poteshnye voyska literary meaning “amusement army”. It could even be related to toy soldiers that kids play with. The idea that a royal persona should play his war games with real soldiers is evident in the practice of “living” chess games, played all over Western Europe during the eighteenth, nineteenth and even the twentieth century.

\(^{64}\) This prince-soldier image is quite close to what chronicles tell us of young Alexander and his hetairoi. The idealization of the boy-soldier who grew up to be a conquering emperor is a common part of great men’s mythology.
visited the most influential Western capitals and was fascinated by the splendor and glamour of the “civilized world”. At least that is what most western studies presume. The fact is that Peter was truly inspired and amazed only by one thing—ships. It suffices to note here that Peter was quite unimpressed by the French army when he saw them parading.\textsuperscript{65} Then it could be assumed that it was not the eyewitness of the most developed and sophisticated army that inspired his reforms either.\textsuperscript{66} In reality, Peter drew inspiration for the structure and for composition of his infantry regiments from Saxony and Austria. He sent Adam Weyde to Dresden and Vienna in order to become familiar with the basic army regulations of the two states. These were later translated into Russian and used in the process of forming the newly recruited regiments in 1699 and 1700.\textsuperscript{67} According to Bobrovskiy it was Peter’s plan for war against Sweden that provoked the establishment of a permanent standing army in Russia. On the other hand, he notes that the regiments, established between 1699 and 1700 were poorly armed and trained and it was not until the disaster at Narva that the true process of army formation began.\textsuperscript{68} Thus, the event that made Peter to realize that war games and parades were only the “powdered faces” of eighteen-century warfare was the Battle of Narva (1700). In this confrontation the Russians met one of the most experienced and well-trained forces in Europe and suffered a humiliating loss. The factors for the Swedish victory are examined in detail in books dealing with the Great Northern War (1700-1721).\textsuperscript{69} What concerns the current research is that Peter understood that he had to create a coherent, better-trained force and to equip it with the best possible weapons.\textsuperscript{70}

\textsuperscript{65}Peter is quoted for commenting on French troops “I have seen dolls, but not soldiers”.

\textsuperscript{66}During the Nine Years’ War (1688-1697) and the War of the Spanish Succession (1701-1714), France possessed an impressive army, probably the best in Europe. It was the genius of the Allied commanders Marlborough and Eugene and the multitude of fronts that France had to face that kept the military balance in the beginning of the eighteenth century. For an exhaustive account of the French army under Louis XIV, see J.A. Lynn, \textit{The Wars of Louis XIV}, 1667-1714 (Harlow; Longman, 1999); J.A. Lynn, \textit{Giant of the Grand Siècle: The French Army, 1610-1715} (Cambridge: Cambridge University Press, 2006); If we accept that the Grand Tour and the war games were the main reason for the reforms, we may not but wonder why did Russia enter the Great Northern War with an army, that was more or less structured in the same way as was the army under Golitsyn.

\textsuperscript{67}P. Bobrovskiy, \textit{K dvuhsoityatiyu uchrezhdeniya regularnyh voysk v Rossii} (1699-1700 po 1899-1900), (St. Petersburg: Tipografija Glavnogo Upravleniya Udyalov, 1899), 2.

\textsuperscript{68}Ibid., 4; A. Bayov confirms Bobrovskiy’s perspective on the influence of German military manuals, equipment and unit structure on the composition of Peter’s newly recruited regiments, but notes that it was the shortage of troops after the disbandment of the Moscow streltsy and the Belgorod-line troops that led to the formation of the regular regiments between 1699 and 1700. Regarding the influence on Peter’s reform policy, he clearly outlines that Peter’s genius was strong enough to succeed in the reforms he had planned on his own. Furthermore, Bayov is quite critical toward the foreign officers, recruited by Peter for the training and the command of the new regiments; see A. Bayov, \textit{Kurs istorii russkogo voennogo iskusstva: Vypusk II, Epokha Petra Velikogo}, (St. Petersburg: Tipografija Gr. Skachkov, 1909), 42-3.

\textsuperscript{69}There are numerous books and articles dealing with the Great Northern War. Almost any account on Russia’s military effort under Peter is concentrated on the Northern War.

\textsuperscript{70}Peter himself comments, that the defeat at Narva should come as no surprise, since his entire army lacked real field experience and only the two guard (leyb) regiments had seen any real action during the two Azov campaigns—“Zhurnal ili podennaya zapiska blazhennya i vechnodostoynnya pamyati gosudarya imperatora Petra Velikogo s 1698 goda dazhe do zaklyucheniya neyshtatskago mira” (St. Petersburg: Akademia nauk, 1770), 23 (referred henceforth as \textit{Zhurnal ili Podennaya zapiska}).
It was the course of the Great Northern War, with its victories, setbacks, and defeats that shaped the reform of the Russian army. In early modern Europe, the most suitable time to reform a state’s army was during war. It provided the opportunity to instantly test against the enemy any new idea and to correct in time any shortcomings that occurred. Furthermore, it is the creation of a veteran army that is the final goal of any successful army reform. Then it is not surprising that Peter experimented with different tactics and ideas during the course of the Northern War in order to find the exact formula for success. He introduced heavy cavalry and later - abolished it. He used different field configurations to determine the best way to situate his army on the battlefield. Guns of various sizes were used on some occasions to improve the firepower of regiments and to find out which caliber is the most appropriate one.

Finally, it turned out that Russia’s military development was shaped by the very same factors that predetermined the Muscovite military evolution during the sixteenth and the seventeenth centuries. Logistical issues required the development of a mobile army, which could easily transfer over the enormous distances between Russia’s separate frontiers. The use of light, mobile cavalry by the Turks, Tatars and Kalmyks, as well as the general preference of Peter toward light, mounted forces, resulted in the dropping out of the heavy retyary, and the creation of a high number of dragoon regiments. The necessity to respond to both cavalry attacks and the powerful “gå på” tactics of the Swedes, led to the application of mobile field fortification. Furthermore, the pike was not entirely removed from the ranks, since it was very useful in repulsing cavalry charges by the steppe hordes. Therefore, the new Russian army had a lot more to do with the old one than Keep’s and Hallie’s studies indicate.

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71 As David Parrott notes, it is not the tactical reforms, but the establishment of a veteran army that makes a state powerful at war. When veterans met inexperienced troops, no matter how situated and equipped the later were, experience and higher morale always prevailed. Therefore the victories of the Russian army, especially after Poltava (1709) were not due only to superiority in numbers, but also to the experience, gained by the Russian soldiers. Peter was well aware of this fact and that is the main reason for his desire to defeat the Swedes in any possible occasion after the loss at Narva. Russian operations in Estland and Ingria in 1702-1705 served to build up experienced regiments and to bring confidence to the soldiers, see Parrott, “Strategy and Tactics in the Thirty Years’ War”, 227-53.

72 For different evaluation of Peter’s “experiments”, see Fuller, Strategy and Power, 56-84.

73 For account of the heavy cavalry experience in Russia, see Keep, Soldiers of the Tsar, 81-2; Hellie, “The Petrine Army”, 239.; The Swedes relied on the experience of their soldiers and preformed a rapid infantry attack. They used a series of volleys at around 30 ft. to disrupt enemy lines and then charged home with their bayonets. The untrained Russian conscripts proved to be disastrously vulnerable to these charges. Since Peter had to response rapidly to the aggressive Swedish offence, instead of relying on morale and drill experience, which would need time to develop, he reintroduced the mobile field fortifications. Protected by this wooden palisades and trenches, the Russians were able to break the Swedish offence and counter–attack, using volley fire and bayonets. Poltava is the classic example of this way of conducting battles.

74 Both Keep and Hellie refer to the transition of experience, but none of them seems to take into consideration the obvious continuum of the streltsy tactics. Furthermore, as noted by Christopher Duffy, most of the streltsy were not killed or disbanded, but instead, as experienced troops, they were incorporated in the new infantry regiments. Therefore, it is no surprise that they took their manner of fighting and transferred it to the new recruits.
In general, the infantry was formed into two types of regiments: grenadier and fusilier. Initially, grenadiers comprised only separate companies within fusilier regiments, but after the Battle of Poltava (1709) these companies were merged and formed different regiments of foot. Every soldier possessed a musket and was given a uniform. In response to the Swedish threat, the structure of the infantry regiments changed on several occasions between 1700 and 1711. Some regiments consisted of larger number of men than others, and special task force divisions received units according to their particular goal. In 1711 and 1712 Peter issued the first regular rules for the number of soldiers (shchet) that each regiment should comprise of. These regulations changed during the second part of the Northern War, but after the ordinance of 1720 the numbers were fixed and differed little from those accepted in 1711. Unlike Muscovite forces, the new Russian army received salaries instead of land grants. In peacetime, the regiments were garrisoned in different key cities in Russia. Apart from field units, a large portion of the Petrine army was comprised of local militia and garrison troops that served mainly along the southern frontier, maintaining fortification lines that span from Dnieper to the Volga. Unlike regular regiments, the militia was kept on the old principle of land grants, which had to provide food and funds for its holders in exchange for their service.

75During the Narva campaign, the Russian arms varied in caliber and even models. After 1711, with the expansion of the gun production facilities, the calibers were somewhat standardized. Nevertheless, calibers remained a problem as late as the Napoleonic Wars, when 28 different calibers were reported in the Russian army. The quality of the muskets was as high as any produced in Western Europe. The preferred type was the French-style flintlock musket. By the end of the Great Northern War, the weapons of the Russian infantry were of better quality and in greater quantity compared to the Swedish ones. Apart from the musket, each soldier had a bayonet knife, which was attached to the weapon, with a mechanism at the lower part of the barrel. For an exhaustive description of infantry armament, see Tatarnikov, Russkaya polevaya armiya, 85-99; Uniforms were copied from the so-called German fashion (Nemetskaya moda). They were with plain cut and were developed to allow maximal mobility as well as protection from the harsh Russian weather. The colors of the uniforms varied according to the regiments and the type of infantry. Uniforms were generally made from cloth, which after 1711 was produced in Russia. However, a cloth shortage was significant and imports reached as high as 1/3 of the total necessary amount. For an exhaustive description of Petrine uniforms, see Tatarnikov, Russkaya polevaya armiya, 44-71; A. Konstram, Peter the Great's Army, vol. 1 (London: Osprey Publishing, 1993), 22-4 with very precise illustrations on pages 25-33.

76According to the ordinance of 1711, there were 42 regiments of foot – 2 regiments of the guard (leyb), 5 grenadier regiments and 35 fusilier regiments. All in all they numbered 52,164 combatants (stroevoy soldaty) and 10,290 non-combatants, or a total of 62,454 men, see L.G. Beskrovnyy, Russkaya armiya i flot, 40.

77The regiments in 1720 were again 42 – 2 guard, 5 grenadier, 35 fusilier – 54,560 combatants and only 3,396 non-combatants, or a total of 57,956 men, see. Ibid, 41.

78For a map of the Garrison arrangement of the regiments during the reign of Peter I, see J.P. LeDonne, The Grand Strategy of the Russian Empire, 1650 – 1831, (Oxford, 2004), 45; After 1724 regiments were named after the cities in which they were stationed and recruited.

79Many of these troops were formed from the former streltsy, retyary and kopeishchiky, who were disbanded from field service after 1700. Therefore, the idea that Peter destroyed or disbanded completely his former army is false. In fact, the emperor used these old regiments and companies for training grounds of new recruits, taken during the annual recruitments. The only part of the old style army which was completely dissolved was the noble cavalry. L.G. Beskrovnyy, Russkaya armiya i flot, 44-7.

80The system of settling militia and garrison regiments on the southern frontier was already introduced by Aleksey during the seventeenth century. Peter continued the practice and supplemented the frontier with several new garrison regiments and new Cossack reinforcements. For an extensive description of the frontier service, see LeDonne, The Grand Strategy, 23-9 and 44-52; Konstram, Peter the Great’s Army, 38-9; Duffy, Russia’s Military, 125-36.
The variability of Russian cavalry types must not be underestimated. Even though the regular cavalry was comprised exclusively of dragoons, Peter could rely on the support of two prominent irregular forces – the Cossacks and the Kalmyks. The Cossacks were a frontier-based warrior society that evolved throughout the entire early modern period. By the reign of Peter, most of them were already settled on the steppe frontiers and were under relatively high state control. Most of the Cossacks were Orthodox Christians, but there were also Muslims since religion was not determinative for the Cossack ethos. The Kalmyks were, perhaps, the last great horde of Asia. Unlike the Tatars their ancestry could not be traced back to the Chingisid Empire and they were proud of their heritage. They became very useful allies against the Nogais, the Tatars and other Central Asian tribes. Still, they could also be a threat to Russia and the frontier forces, especially around Astrakhan, where troops were always vigilant for sporadic Kalmyk raids. Unlike the Cossacks, the Kalmyks were mostly Muslim, although some of them kept their old pagan practices up until the eighteenth century. In general, Cossack and Kalmyk bands slightly differed in their equipment. They were light cavalry units, armed with different types of swords and a large variety of guns. They had no standard uniforms or regimental flags. Unlike dragoons, they did not receive regular payment, but were rather allowed to keep their part of the loot and later - to trade these goods and captives in Russian and Central Asian markets.

The dragoons were the only regular cavalry in the Petrine army. During the early stage of the Northern War Peter decided to trade heavy armament for mobility and the ability to fight dismounted. Similarly to Gustav II Adolf (r. 1611-1632), Peter had a preference for saber charges than to ranged attacks and he used his dragoons to flank enemy positions by dealing with enemy cavalry and chasing the defeated foes out of the battlefields. Furthermore, dragoons were used to form special task forces, which were sent on individual missions.

81 For a concise narrative on the settlement and the administration of Cossacks, see B.J. Boeck, Imperial Boundaries: Cossack Communities and Empire-Building in the Age of Peter the Great (Cambridge: Cambridge University Press, 2009).
82 When it came to war religion was never essential for Russia. As early as the fifteenth century, the Muscovite state employed irregular Muslim bands in its forces. During the advance in Siberia, Muslims and pagans were often approached as possible allies. During the Persian campaign, the most active ally of Peter was the Sunni shamkhal of Tarki.
84 A good example is presented during the 1705 Revolt in the Astrakhan region, when the Kalmyks took advantage of Russia’s situation and raided Russian territories in the South-East.
85 Peter tried to limit this practice, but in the end he had to give up, because the state did not have the funds, necessary to compensate the Kalmyks for their participation in a campaign. The Cossacks, who were more bound with the Russian state had comply with the general regulations, but every now and then, they raided enemy territory and earned additional funding by selling the spoils of war or through collecting ransoms.
86 Gustav II Adolf is credited for restoring the place of the cavalry on the battlefield, after the military developments of the sixteenth century had somewhat diminished its role. Both Michael Roberts and Geoffrey Parker are proponents of this idea, see Roberts, “The Military Revolution, 1560-1660”, 13-37; Parker, “The Military Revolution, 1560-1660 – A Myth?”, 37-55.; The most famous example is the “flying corpse” of
The dragoon regiments also varied in size and purpose during the first decade of the eighteenth century. In 1711 the ordinance, regarding the shchat of the different army types, prescribed a total of 33 regiments, numbering 43,824 men (34,320 combatants and 9,504 non-combatants), while the size of the regiments was fixed at 1,328 soldiers and officers. The new shchat of 1720 brought little change to the overall structure. The number of regiments was kept at 33, but the grenadier companies were taken out of fusilier regiments and gathered in their own regiments, similarly to foot grenadiers. The number of troops per regiment was reduced to 1,253, so the total number of dragoons in 1720 was 37,851 men.87

The artillery reform was indeed the main army innovation, introduced by Peter I. During the sixteenth and the seventeenth centuries, artillery was not a separate type of force, but was attached to field regiments. Furthermore, there were neither standard calibers, nor standard materials for guns: some were cast from bronze, others – from iron; some were new, others - a century old.88 During the Battle of Narva Peter lost his entire artillery train, and though this seemed like a disaster, the determined tsar used this loss to build new, up-to-date artillery. In 1701 Peter established individual artillery corps, which was deployed separately from the infantry regiments.89 Furthermore, as early as 1697, the Russians introduced the horse-pack mortars – half a century before western armies.90 In general, by 1722 Russia possessed an excellent artillery train and Russian gunners were considered among the best in Europe.

The artillery itself was divided into four main elements – regimental, field, siege and garrison. Regimental artillery numbered between six and eight different types of guns for cavalry and a total of six guns and mortars for the infantry. The number of field guns varied from 157 in 1706 to 108 in 1712 and again - 108 in 1724. By 1724 the siege artillery comprised of a total of 360 guns and mortars.91

Peter’s reforms also affected the officer corps. The establishment of military schools, as well as the general desire of Peter to promote as many local officers as possible, led to the “russification” of the officer corps. Nevertheless, some foreigners remained, especially in the infantry and artillery, where they were needed during the rearrangement of these forces. The higher echelon of the

Menshikov, prior to the Battle of Poltava. The highly mobile Russian force was able to check the Swedish movement and to deny them the ability to resupply.
87 Beskrovnyy, Russkaya armiya i flot, 41-2.
89 The first artillery corps was comprised of 4 gunner companies, 4 mortar platoons, bridge and engineer companies and a corps of officers. They numbered 674 men in total. The first regular shchat for the artillery was issued in 1712 and the corps’ numbers were set at 20 staff-officers, 53 officers, 285 non-commissioned officers (NCOs), 984 combatants and 2,217 non-combatants. L.G. Beskrovnyy, Russkaya armiya i flot, 43; This was supplemented by the establishment of a standing horse corps to pull the artillery in 1711. It comprised of 1,986 horses and 1,255 men, see Hellie, “The Petrine Army”, 244.
90 Ibid; the general search for mobility, demonstrated by Peter was utilized in the west as late as Napoleon. Thus, Russia was a step ahead of the West in the beginning of the eighteenth century.
91 Beskrovnyy, Russkaya armiya i flot, 43-4.
officer corps was comprised of Peter’s childhood companions (Sheremetev, Apraksin, Menshikov) or his foreign tutors (Bruce, LeFort, Gordon). While the former were charged with commanding the field army or the navy, the latter were placed as heads of the artillery, since ballistics was still a underdeveloped discipline in Russia. Nevertheless, Peter established the first military school in St. Petersburg in 1704, and it was dedicated to the arts of artillery. By the end of Peter’s reign, artillery’s higher echelon also consisted of officers of Russian origin.

Although on paper any soldier could progress through the ranks, in fact, the highest positions remained a privilege of the nobility. Moreover, progressing officers of unprivileged origins were ennobled after reaching a certain rank. Thus, new military nobility came into being, supplementary to the service nobility, established by Peter through his administrative reform. By 1722 a complicated structure of ranks was developed which was finally systematized in the “Table of Ranks of 1722”. In this chart military, official and civil titles were equalized to define the honors and hierarchy among them.\(^92\)

A major problem of the Petrine army was discipline. Like any other recently reformed force, the army of Peter I was comprised mostly of fresh recruits with little or none combat experience.\(^93\) Most of these soldiers were conscripted men, who had never before left their villages and a substantial part of them served far away from their homes. Furthermore, like any other early modern peasants, Russians were superstitious and placed great emphasis on the balance between known and unknown. Thus, when remote from their home, they were subjected to fear and superstitious beliefs.\(^94\) Apart from the cultural shock, problems with inadequate treatment, low or no payment and shortage of food also contributed to the large number of deserters.\(^95\) Defeats and uncertain

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\(^92\) For the complete table of ranks, see L.G. Beskrovnyy, *Khrestomatiya po Russkoy voennoy istorii* (Moscow, 1947), 143-50.

\(^93\) The same problems could be seen in Western Armies during their formation period in the Thirty Years’ War. As David Parrott notes, desertion and logistics issues were the main enemy of seventeenth century armies and commanders first had to be good administrators and only after that came the importance of their strategic skills. As with Western forces, as soon as soldiers gained experience, general problems with discipline and desertion lessened, see Parrott, “Strategy and Tactics”, 240-6; Duffy, *Russia’s Military Way*, 130-5.

\(^94\) A great gap in early modern Military history lies in the impact of popular culture on the behavior of soldiers. Superstitions, rituals, and remains of pagan practices were common among early modern people, especially those who came from the rural areas. Folklore and pagan mythology, mashed up with Christianity in order to produce a series of myths, tales, and fears, concerning a person, who left home, traveled on uncertain roads and died far away from home. In Eastern Slavonic mythology, most evil creatures and the Devil himself dwelled on roads and crossroads, or in the ruins of old churches, windmills, etc. other evil spirits were related to violent death and inappropriate burial ceremony of a person. Thus, apart from the common reasons of ill-treatment, low or no payment and the low moral after a defeat, belief also had their place in the reasons for desertions.

\(^95\) Beskrovnyy analyzes in depth the problem of desertion due to ill treatment of the recruits. They were placed in barns, locked in small chambers, sometimes a hundred people at a place. Food and clothes were of constant shortage, and diseases were quick to spread. The authorities tried hard to coup with this problem, but the harsh methods (between 1700 and 1708) and the later promises of pardon upon their return were of little help. Tattoos and signs were placed on the recruits’ arms in order to distinguish them in case they deserted, but these were often scratched away by the peasants and some even went so far as to cripple themselves in order not to be recruited.
victories were also part of the problem. To cope with this situation, Peter I issued a strict and harsh military code. Capital punishment and torture were regularly applied to deserters. Another practice was to take relatives as hostages in exchange for loyalty on the field. Nevertheless, general problems with desertion were constant during the first decade of the Northern War. Only after the victory at Poltava and the improvement of supply system after 1711, the overall morale of the troops rose and the level of desertion fell.

The sinews of war

An army, no matter how well trained or experienced would not survive a single day in the field without an adequate logistical support. In Russia, the need to secure the army’s supply was well understood long before the accession of Peter. In general, the three most essential sinews of war are men, supplies, and money. Each of these is related to the others, and none of the three could sufficiently replace the lack of the other two. Peter I was well aware of this interrelation and he did everything he could in order to provide his army with this three main elements of army support.

Logistics

The greatest problem with logistics in Russia was distance. Since Moscow was the center of the state’s supply system, supplies had to be transported from there to any frontline. Unfortunately, most fronts were over a thousand kilometers away. To make things worse, the weather played very negative role in the development of logistics. Contrary to the common belief, it was spring and autumn rather than summer and winter that were problematic for army’s supply.

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96 This medieval practice was generally applied toward nobles and vassal rulers, but Peter expanded it to locals as well. When a deserter from a certain village was not captured, the village had to pay a certain fee.
97 Duffy, *Russia’s Military Way*, 130-5; Beskrovnyy, *Russkaya armiya i flot*, 30-1; Problems still existed, but that was the case in all armies during this period and the Russian was no exception.
98 For example, in 1630 the Russians began a careful preparation for the upcoming Smolensk campaign (1632-1633). Iron and copper were imported from Western Europe, food and munitions were stored in special key points on the future route of the army. Diplomatic support was provided, gaining the neutrality of Sweden and the Crimean Tatars. In the sixteenth century Ivan IV first secured his army’s abundance with arms, provisions and transports and then launched his offensives, see D.L. Smith, “Muscovite Logistics, 1462–1598”, *Slavonic and East European Review* 71, 1 (1993), 35-65; Fuller, *Strategy and Power*, 3-10.
99 There is a millennium old debate between military leaders and writers on the exact nature of the sinews of war. Any great man who deals with war from Cicero onward had his own perception of what was important for the support of war efforts. In general, money, supplies and men are the three most important elements, which are interrelated and comprise the general logistics complex.
100 Money cannot buy everything. A rich (in terms of money) state with small population and poor supplies could not maintain a military effort. A numerous population, deprived of full treasury could not wage war for a long period. An abundance of supplies without a proper army and a considerable amount of money to pay the prices of transport and service is also doomed to failure. The lack of one of the sinews would not hinder the beginning of a war, but it will certainly prevent a decisive victory.
101 LeDonne, *The Grand Strategy*, 16 - for a map, illustrating the distance from Moscow to the main frontlines and operation bases.
movement. The rains and the melting snow transformed the steppes into an enormous muddy swamp, which was impenetrable on foot. Oxen carts constantly stuck in the mud and even horses had problems traversing the knee-deep silt. Roads were scarce and most of them resembled a dirt trail, drawn by the passing carts. The road connecting the new capital Petersburg and Moscow was not in good condition. Apart from threatening the security of the new city, this resulted in a problematic communication between the administrative apparatus, situated in the capital and the supply depots, positioned in Moscow. However, Russia was blessed with navigable rivers which made possible the connections among most parts of the empire. Peter I was very keen on developing river transport and under his direction several canals were dug to enhance mobility and supply on the frontiers.  

However, water transport was not always a possible solution and Russian forces constantly suffered from shortage of particular necessities. 

If distance could be overcome by different means of transportation, the supply of goods and ammunitions brought up other issues. Russia was abundant of all kinds of metals and resources, but most of them were still underdeveloped while others needed a further development to meet state’s needs. First and foremost, Russia needed weapons. Guns, firearms and gunpowder were of a constant shortage during the seventeenth century and had to be imported. Peter decided to solve this problem by developing a substantial military industry, which would transform Russia into a self-sufficient force. The discovery of large deposits of iron and copper in the Urals were crucial for fulfilling Peter’s ambition. Results were fascinating and by 1725 Russia became the leading distributor of high quality iron in the world. Russia’s output surpassed any other state in Europe, including England and Sweden. The supply of high quality iron enhanced the production of weapons, which increased fivefold between 1700 and 1706. By the end of Peter’s reign, however, weapons were still imported from England and the Dutch Republic. Obtaining gunpowder for the Russian army was also problematic, as its production was in the hands of private entrepreneurs, most of whom were of Russian origin. The system of gunpowder

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102 For an exhaustive description of the canal projects and their exact purposes, see LeDonne, The Grand Strategy, 52-60.

103 Fuller, Strategy and Power, 37-56; Fuller is biased, since he fails to note that no early modern administration could handle with the vastness of Russia. If France, England or Austria were challenged by the same distances, their logistics systems would have crumbled. However, regarding the circumstances, Russia preformed surprisingly well. Therefore, Russian logistics should always be evaluated on the basis of conditions, distances and quantities and should never be viewed outside the context of general early modern development. Doing the opposite implies dangerous inaccuracy.

104 For an exhaustive account of Russia’s iron production, see N.I. Pavlenko, “Produktsiya ural'skoy metalurgii v nachale XVIII v.”, in L.G. Beskrovnny (ed.), Poltava: K 250-letiyu Poltavskogo srazheniya; sbornik statey (Moscow: Akademia nauk, 1959).

105 The production of muskets was 6,000 in 1700 and grew up to 30,000 in 1706. In 1709-1710 this figure rose to 125,000, see Konstram, Peter the Great’s Army, 34-5; Hellie, “The Petrine Army”, 240; Beskrovnny presents a concise table of firearms production between 1721 and 1751. In 1721 were produced 26,358 firearms in several different types; 28,089 were forged in 1737 and 35,951 - in 1747. In addition, thousands of old firearms were recast – 14,610 in 1730 and 57,645 in 1737; see Beskrovnny, Russkaya armiya i flot, 86-87.
supply was the following: the state ordered a certain amount of powder; the gunpowder manufactories produced it and delivered it to the state reserves; the reserves distributed the gunpowder to the required locations, following the instructions of the Senate and the Artillery (and later Military) department. Nevertheless, gunpowder producers were always short to meet state’s needs. There are numerous examples of gunpowder shortages due to the inability of private contractors to fulfill state’s orders.  

106 The main reason for the shortage of powder was the lack of saltpeter.  

Throughout his entire reign, Peter sought to fix this problem and to find new sources of saltpeter. In 1712 he issued an order for the increase of saltpeter production and during the following three years several state-owned gunpowder factories were established, most important of which were those in St. Petersburg and Moscow. By 1716 their combined output was 10,800 puda (176.04 tons) yearly. In 1717 a new system of mechanized gunpowder production was introduced, which increased the quality of the Russian powder. There were at least six state-owned gunpowder factories by 1714, which more or less could provide the bulk of the necessary supplies for the army.  

108 Clothing also became a challenge for the Russian state.  

As late as 1722, Russia still had to import 1/3 of the required cloth for the making of army uniforms.  

Textile manufactories were insufficient in numbers and their output was not of the highest quality.  

111 The material was imported from England, the Dutch Republic and even from the Ottoman Empire. Unlike fabric, leather was supplied and manufactured in large numbers and by 1709 Russian leather production was able to meet state’s necessities.  

112 In general, the Russian army was more or less sufficiently equipped with uniforms. However, as W. Fuller notes, there were still occasions when Peter’s troops were dressed in rags putting their tsar and commanders to shame.  

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106 For data-abundant account of gunpowder production in Petrine Russia, see M. Lukyyanov, “Proizvodstvo Porokha v Rossii v pervoy chetveri XVIIIv.”, in L.G. Beskrovnyy (ed.), Poltava: K 250-letiyu Poltavskogo srazheniya; sbornik statey (Moscow: Akademia nauk, 1959); The average supply of gunpowder between 1704 and 1711 was 13 to 30,000 puda (or 489 tons) of gunpowder per year; see Beskrovnyy, Russkaya armiya i flot, 96.  

107 Ibid. Saltpeter was insufficient and on several occasions the state had to requisition large amounts of saltpeter in order to supply the production. On other occasions, producers asked for state funding in order to import saltpeter from Western Europe. Apart from the above-mentioned occasions, saltpeter was imported from Ukraine or the Lower Volga cities. Beskrovnyy Russkaya armiya i flot, 96.  

108 Beskrovnyy, Russkaya armiya i flot, 97.  

109 By 1709, the Russian field army numbered around 120,000. Each soldier had to be provided with a standard set of equipment which cost almost half of his yearly payment; see A.I. Yuht, “Russkaya promyshlennost i snabzhenie armii obmundoirovaniem i amunitsiей”, in L.G. Beskrovnyy (ed.), Poltava: K 250-letiyu Poltavskogo srazheniya; sbornik statey (Moscow: Akademia nauk, 1959), 211.  


111 Yuht, “Russkaya promyshlennost”, 211-5; Yuht provides an exhaustive narrative of the cloth-supply problems and provides an abundant amount of data.  

112 Ibid., 219.  

113 Fuller, Strategy and Power, 50. Nevertheless, Yuht provides information that by 1709, despite the problems with production and transportation, the state was able to provide for the general needs of the army; see Yuht, “Russkaya promyshlennost”, 227.
Another problem with the upkeep of Russia’s army was horse supply. The greater part of Russia’s cavalry was mounted on steppe horses, bred by the Kalmyks and other Central Asian tribes. Unlike Western European breeds, Asian horses were relatively small and could not carry significant loads.\footnote{Konstram, \textit{Peter the Great’s Army}, 9; quoting captain Jeffreyes’ account of the Battle of Holowczyn (1708) “twas seldom that we could overtake them, and never but when by chance they came into a morasses whence their horses being little and weak could not so hastily carry the out as to escape us”\textsuperscript{.}}\footnote{Ibid., 11.} Apart from the desire for better mobility, the lack of bigger horses predetermined the limited numbers of the heavy cavalry.\footnote{Beskrovnyy, \textit{Russkaya armiya i flot}, 125.} In harsh winters and when fighting outside Russian territory, horses were vulnerable to weather conditions as well as to the unknown types of poisonous grass, which often led to the death of hundreds of animals.

According to official numbers, Russia’s cavalry was supposed to have 42,000 horses (33,000 for combat and 9,000 for transportation) in line with the regulations of 1711. As mentioned above, the number of dragoons, serving in the cavalry was 42,820 (34,320 combatants and 9,504 non-combatants) in the same year. These figures mean not only that there were not enough horses per soldier, but also that 1,320 cavalrymen did not possess horses at all. Furthermore, each horse was supposed to serve for ten to twelve years before it was replaced.\footnote{Fuller, \textit{Strategy and Power}, 1-10.} The regulations of 1720 brought few changes into the picture. The number of war horses was raised to 34,000 and the non-combat animals were supposed to be 10,000. However, the number of dragoons was also increased (37,851 dragoons in 1720), which meant that over 3,000 cavalrymen were left without horses. The state tried to establish several “horse factories” in the Volga basin to supplement the number of available mounts, but by 1740 this system had achieved unsatisfactory results. Therefore, the state had to recruit horses from the peasants and the monasteries and also to purchase significant numbers from abroad. Still, by the end of the Russo-Ottoman War of 1736-1739, the problem of insufficient mounts was not overcome.

**Conscription**

The levy of additional recruits is the second crucial element in supporting the war effort. Conscription, rather than hiring mercenaries, was a preferred method in Russia as early as 1630.\footnote{Hellie, “The Petrine Army”, 249. According to the law, the state was divided into sections of 20 households. Each section had to provide 1 soldier fit for battle. This practice was supplemented by additional recruits, levied among a larger portion of households. Hence - the great variety between the numbers of households per soldier; see Keep, \textit{Soldiers of the Tsar}, 103-6; Fuller, \textit{Strategy and Power}, 45-7; For the size of annual recruits, see Table 2 in the Appendix for the current chapter.} The drafts were based on a system of recruiting one soldier from every 10 to 95 households.\footnote{Ibid., 11.} Initial recruitments provided fewer people than Peter had hoped and in 1705 was introduced a new recruiting
system, demanding one soldier from every 20 households. One mounted soldier had to be provided from every 80 families. In reality, these figures varied due to additional levies, corruption and the practice of payment for a substitute. Numbers vary between 250,000 and 350,000 for the entire reign of Peter. If we accept Beskrovnyy’s extensive examination of documents, a total of 5,528,742 this figure meant that Peter managed to mobilize 6.2 per cent of Russia’s male population. If by 1724 the total number of soldiers was 253,000, then Peter was able to mobilize over two per cent of Russia’s population. As Keep notes, twentieth-century countries with the same population as Russia had in 1700 were capable of supporting no more than 65,000 soldiers. Therefore, despite the setbacks and problems of transportation and recruitment, Russia achieved exceptional success in mobilizing its war potential during the reign of Peter I.

It was not so much the size of the recruitment but the conditions of service that were problematic and led to the high rates of desertion. According to the Military Code, recruits had to anticipate in a life-term service in the army. Even after this term was reduced to twenty-five years of service, things did not change for common soldiers. In general, Russian commoners believed that a soldier could only leave the army if he was killed. Moreover, many of the recruited soldiers were loosing any hope of seeing their families again. This trend led to high levels of desertion that are acknowledged even by Russian historians.

Since punishment and other measures of preventing desertion were unsuccessful, the only way to compensate was by carrying out new recruitments,

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119 Keep, Soldiers of the Tsar, 103-6; The recruiting system of 1705 was rearranged in 1708-1709, after the administrative reform and the new census of households. Until then, the recruitment was based on the old household data, gathered in 1678; V.N. Avtokratov, “Voennyy prikaz (u istorii komplektovaniya i formirovaniya voysk v Rossii v nachale XVIII v.),” in L.G. Beskrovnyy (ed.), Poltava: K 250-letiyu Poltavskogo srazheniya; sbornik statey (Moscow, 1959), 232-3.
120 Keep estimates over 300,000 people for the entire reign of Peter; see J. Keep, Soldiers of the Tsar, 107; Fuller mentions “at least quarter of a million”; see Fuller, Strategy and Power, 47; Avtokratov estimates that for the 1705-11 period, 150,000 were recruited; see Avtokratov, “Voenny Prikaz”, 233; According to Beskrovnyy, at least 342,770 recruits were enlisted during Peter I’s reign; see Beskrovnyy, Ruskaya armiya i flot, 23-35.
121 For a complete summary of all recruitments between 1700 and 1740, see Table 2 in the Appendix for the current chapter.
122 Duffy, Russia’s Military Way, 127.
123 Brian Davies, accepting J. Keep’s figures, estimates a total of 289,000 soldiers in 1725. Davies, Empire and Military Revolution, 161; Keep, Soldiers of the tsar, 138; The figures in the current dissertation are based on Beskrovnyy’s account, since the numbers seem more plausible and are generally accepted by modern Russian historiography.
124 Keep, Soldiers of the Tsar, 90.
125 Duffy, Russia’s Military Way, 130-6.
126 Avtokratov quotes a case from 1707 in which out of 23,000 dragoons, only 8,000 remained at their position, while the others deserted; see Avtokratov, “Voennyy prikaz”, 244.
sometimes on several occasions per year.\textsuperscript{127} The government resorted to taking hostages among soldiers’ families in order to secure their presence in the rank and file. Harsh corporal punishment was also issued in order to cow the recruits into submission. These measures were not uncommon among contemporary armies, and as with their western counterparts, in the consecutive decades Russian officers would slowly abolish the harshest forms of punishment.\textsuperscript{128}

The cost of recruitment over the general population was staggering. Although Peter managed to provide enough men for his forces, this was achieved at a great price. The census of 1710 demonstrated that over 20 per cent of Russia’s households, that were extant in 1678, no longer existed while in particular provinces this percentage reached 40 per cent.\textsuperscript{129} Peter ordered this new data to be neglected, and further drafts were carried out according to the old lists. When censuses were conducted between 1719 and 1723, usually the aristocracy hid the exact number of serfs they owned and by doing that - greatly hindered the work of the Senate. In addition, the peasants used different means to trick the authorities in order to evade conscription.

\textit{Money}

While the supply of men and the logistics were matters of organization, the provision of funds was an entirely different story. State revenues during the early modern period were bond tightly with war expenditures. Like his Western European counterparts, caught up in series of wars between 1700 and 1718, Peter had to find a solution to the increasing financial burden of his aggressive policy.\textsuperscript{130} In this sense, the Northern War, with its financial and administrative needs, served as the main catalyst for the governmental and fiscal reforms in Russia. Peter developed a new system of dividing his territories – the governorships (\textit{guberniya}). These military-administrative units served to accelerate the mobilization of funds, supplies and recruits for the war effort. Furthermore, Peter established the Senate and its relative Colleges to ease the legislative burden on the old bureaucracy and to achieve a better and more efficient administration.\textsuperscript{131} The new system helped for the better utilization of state’s resources and the higher administration served as Peter’s substitute when the tsar was on a campaign. Apart from these liabilities, this new administrative apparatus had to elaborate and enact the particular laws and ordinances which implied Peter’s further reforms. Thus, apart from the ruler, the Senate and the

\textsuperscript{127} As mentioned above, after 1711 desertion levels lessened in general, but remained an issue until the end of the eighteenth century.
\textsuperscript{128} A. Stoyanov, \textit{Velikata Severna voyna – Triumfat na Petar I}, (Sofia: Millennium, 2015), 42.
\textsuperscript{129} These 20 per cent can be split as follows: 4 per cent were taken in the army and fleet; 7 per cent escaped their lands; 6 per cent perished; 3 per cent were killed due to different reasons. Beskrovnyy, \textit{Russkaya armiya i flot}, 113.
\textsuperscript{130} For war expenditure of Petrine Russia, see Table 4 in the Appendix for the current chapter.
\textsuperscript{131} For an exhaustive narrative of Peter’s administrative reforms, see Hughes, \textit{Russia in the Age}, 92-135.
War College were also responsible for creating and applying the new taxation and recruitment methods.

When it comes to war economy, Peter’s reign is distinctive in two aspects – the increase in both state revenue and war expenditures. Russia’s income under Peter increased almost three times while military spending grew six-fold.\(^{132}\) Several fixed and extraordinary taxes were imposed to cover the expenses and to balance the budget. However, by 1723 it became apparent that even the new census of 1722 was not sufficient to regulate the Treasury’s problems.\(^{133}\) In 1724 the new soul tax (\textit{podushnaya podaty}) was introduced, replacing the previous household tax. Whether this tax was additional burden on the Russian population or was a form of relief as it was imposed per person, not per household is still a matter of debate. Though the tax became a main string in the state budget, it also raised widespread resentment toward the empire. Furthermore, over eighteen provinces suffered from money shortages due to the new tax.\(^{134}\)

Although the extraction of more and more funds was supposed to balance the books, a deficiency in the amount of payment was present, especially in the last years of Peter’s reign, as well as during the rest of the 1720s.\(^{135}\) The great burden to the state was due not so much to costs related to combat, but to expenses related to maintenance. Since Peter wanted to establish a standing force, he did not disband his troops after the end of the campaign season, but garrisoned them in different regional quarters around Russia.\(^{136}\) In comparison to military expenditure under Aleksey, the standing army of Peter, which was roughly the same size, cost almost five times more.\(^{137}\) Partly, these expenses were due to the state's obligation to provide uniforms and armament for the troops and partly because the regular soldiers were forbidden to plunder and did not have any rights to the spoils of war.\(^{138}\)

By imposing extraordinary taxes in difficult years and by using free serf labor, the state was able to keep up with the growing expenditures and by the end of Peter’s reign the situation seemed stable. However, as the reigns of his successors demonstrate, the burden of the Petrine army was too heavy for Russia

\(^{132}\) See Table 5 in the Appendix for the current chapter.


\(^{134}\) In 1724, the soul tax comprised over 51 per cent of the state income; see S.M. Troitskiy, “\textit{Istochniki dochodov v byudzhete Rossii v sredine XVIII veke}”, \textit{Istoriya SSSR, vol. 3} (1957), 176-98.

\(^{135}\) Between 1724 and 1733 a shortage of over 3,200,000 rubles was present on the artillery and the navy. Beskrovnyy, \textit{Russkaya armiya i flot}, 122.

\(^{136}\) For a map of garrison arrangement of the regiments during the reign of Peter I, see J. LeDonne, \textit{The Grand Strategy}, 45.

\(^{137}\) G. Parker claims that it was cheaper to keep a standing army, rather than reassemble the regiments for each new season. However, Parker studies Western armies only, where the percentage of foreign mercenaries was quite bigger and reorganizing regiments each year was indeed more expensive, than it was in Russia, where the rank and file was comprised exclusively by natives. Therefore, it was cheaper for seventeenth century Russia to keep an irregular force. This was another reason why the “standing army” innovation was postponed in Russia until the eighteenth century; see Table 5 in the Appendix for the current chapter.

and some of Peter’s military enterprises were dismissed or significantly reduced.\textsuperscript{139}

\textit{Russian tactics and strategy in the age of Peter I}

The development of tactics under Peter continued the pattern set by his predecessors.\textsuperscript{140} The development of strategy, however, was brought to a whole new level. Indeed, Peter was quite different from his father and grandfather. Both of them were able rulers but were not soldiers. Peter, on the other hand, sometimes seemed more of a soldier than a ruler. His constant participation in campaigns, staff meetings and his personal intervention in the army reform made a significant impact on the development of Russian strategy and tactics.

The Northern War greatly influenced Russian tactics during the reign of Peter. In the course of this conflict, Russia faced one of the most formidable military powers in Europe – Sweden. While the quantity of Sweden’s army was far from the massive forces mustered by France, its quality was unquestionable.\textsuperscript{141} Years of combat experience, a well-organized system of recruitment and maintenance, and the constant alert against foreign incursions had transformed the Swedish force into a formidable adversary.\textsuperscript{142} Any illusions for easy victory against Sweden were dispersed after Narva and Peter understood that he had to create a strong force to break the enemy. As described above, recruitment provided a sufficient amount of soldiers and Peter was able to form field armies of around 40,000 for each campaign season.\textsuperscript{143} With numbers secured, it was time to concentrate on quality. After the battles in Estland and Livonia in the period 1703-1707, it became apparent that Russian arms were victorious only when the superiority of numbers was evident. Therefore, Peter advised his generals to meet the Swedes only if Russian forces were superior in numbers to the enemy. Furthermore, defensive field tactics were introduced, to break the aggressive gå på offensive, used by the Swedes. After the enemy attack had been faced, the counter-attack was led with bayonets and by the mobile dragoon cavalry. In that way, firstly, the Swedish infantry was flanked and then the enemy was chased off. To counter the Swedish cavalry Russian dragoons dismounted, formed lines and used volleys to disrupt the enemy’s attack. Similar tactic was applied while mounted. The firing took place when the enemy was 30 ft. away, after which, the sabers were drawn, and a hand-to-hand combat was fought.\textsuperscript{144} In large-scale tactics, the Russians preferred

\begin{footnotesize}
\begin{enumerate}
\item[140] Hellie, “The Petrine Army”, 240.
\item[141] For a comparative growth of forces in Europe; see Table 3 in the Appendix for the current chapter.
\item[142] This system was established by Charles XI and was a continuation of earlier practices, issued by Gustav II Adolf and Oxenstierna. The new organization established a standing, regular army that was well-equipped and well-trained; Denmark and Russia were always looking for an opportunity to strike Sweden during the entire seventeenth century.
\item[143] Hellie, “The Petrine Army”, 247.
\item[144] Konstram, \textit{Peter the Great’s Army}, 11-2.
\end{enumerate}
\end{footnotesize}
to draw the enemy deep into their territory, harass his army and cut his lines, using their mobile dragoons and the Cossacks. Scourged-earth tactics were also applied, a famous example being the Poltava Campaign in 1708-1709.

Peter’s overall strategy was concentrated on mobility and offense, though on the battlefield he often preferred to wait for the enemy’s attack and to carry out the combat in a defensive manner. After destroying or weakening the enemy, a counter-attack was carried out, which was aimed at eliminating the opponent. After Poltava, due to the Ottoman intervention, Russia failed to apply this strategy against Sweden. Nevertheless, the Pruth Campaign (1711) itself was an example of Peter’s desire to achieve a decisive victory and eliminate the Turks as fast as possible. The defeat by the Turks did not change Peter’s attitude. He launched offensive against the Swedish domains in Finland and at the same time began to clean Poland-Lithuania from the pro-Swedish forces of Stanisław Leszczyński. Russian troops continued their advance, reaching as far as Tönning. After the allied territory was secured, Russia launched a final offense against Sweden’s mainland and in 1721 finally achieved a victory and signed the Treaty of Nystad (1721). The same aggressive offensive was later applied against Persia. As it will be analyzed in one of the following chapters, Peter planned to penetrate deep into Persian territory and to compel the Shah to secede the provinces that Peter desired.

An essential element in the application of offensive strategy was Peter’s intensive use of amphibious warfare. Unlike his predecessors, Peter understood the importance of naval superiority and he did a lot to establish and promote Russian naval power within all seas accessible by Russia. The secession of Azov (1711) to the Turks and the disbandment of the Black Sea navy did not discourage him and he continued to position his fleets in the Baltic and Caspian Seas. By 1722, Russia possessed a powerful and experienced fleet, capable of supporting land forces with both supplies and military assistance.

1.5. The Post-Petrine Era (1724-1739)

Following the death of Peter the Great, Russia entered a period of dynastic crisis. The government was focused on the internal policy and foreign policy was limited at least until the reign of Anna Ivanovna (r. 1730-1740) who managed to consolidate her power at the beginning of the 1730s. The overextended size of the army, which placed a major constraint on the state finances, had to be reduced and in 1729 one third of the entire army was

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146 He was Sweden’s candidate for the Polish-Lithuanian crown. When Charles XII conquered Warsaw in 1706, he proclaimed Leszczyński king. After Russian forces invaded Poland-Lithuania in 1709, Leszczyński was deposed and August II of Saxony was restored to the throne. During the War of the Polish Succession, Leszczyński once again became a candidate for the Polish-Lithuanian crown, but he lost to August III of Saxony. He became the last duke of Lorraine in 1733, but lost his title, after the duchy was annexed by France in 1735.
147 In the present-day province of Schleswig-Holstein.
disbanded. Furthermore, the upkeep of the Nizovoy corps on the southern Caspian coast increased the expenses to an unprecedented level. To cope with popular unrest, the government under Catherine I (r. 1725-1727) and Peter II (r. 1727-1730) continually decreased the amount of the soul tax. They were, however, unable to limit the size of annual conscription, since the Nizovoy corps consumed more and more recruits each year.

With the accession of Anna Ivanovna in 1730, a change began not only in the internal affairs of the empire but also in the military. Anna’s reign witnessed a reversal in the ratio of Russian and foreign officers since the new empress attracted a substantial number of generals and high-ranking officers from the German states to secure her position against the influence of the powerful Russian families of Dolgorukov and Golitsyn. These new figures brought change to the overall structure of the army and their reforms (especially those, initiated by Marshal Minikh) sought to establish a “German” manner in the structure of the forces.

The question regarding the post-Petrine army has been analyzed in both Western and Russian historiography. B. Davies, C. Duffy, W. Fuller and J. Keep, together with L. Beskrovnyy and N. Petrukhintsev define the main trends in Russia’s post-Petrine military development. While the reign of Peter I is a subject of several debates, historiography, as a whole, has reached a consensus on the evaluation of the time of his successors. The lack of funds, the rise of social pressure and the need for reforming, rearranging and limiting the army and its expenditure were the primary issues of St. Peterburg’s policymaking process during the tough years between 1725 and 1739. Apart from the internal matters, during this period, Russia took part in two major conflicts and continued to maintain a contingent in northern Persia and the Caucasus up until 1735. The disbandment of the majority of Nizovoy regiments lightened the burden on the treasury, but that was not enough and further rearrangements were required.

Army

Following the death of Peter I a slow, but constant process of limiting the size of the army began. As it was mentioned above, in 1729 one third of the troops were

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148 Beskrovnyy, Russkaya armiya i flot, 34.
149 The Nizovoy corps is a term used to describe all Russian troops stationed south of the Terek River. They were used as garrison forces for the new territories, acquired by Peter I after 1722. The establishment of Russia’s “overseas” territories in the Caspian region will be discussed in detail in the chapter regarding the Persian campaign (1722-1724); A. Kurukin estimates that between 1724 and 1735 a total of 40,511 men perished from battles, diseases and other non-combat reasons. I.V. Kurukin, Persidskiy pokhod Petra Velikogo. Nizovoy korpus na beregakh Kaspiya, 1722-1735 (Moscow, 2010), 207.
150 Over 15,000 recruits were sent to the Caspian coasts between 1726 and 1730. This is over 11 per cent of the total recruits, taken in the same period; see Ibid., 209.
151 N.N. Petrukhintsev, Tsarstvovanie Anny Ioannovny: formirovanie vnutropoliticheskogo kursa i sudyby armii i flota (Aleteyya, 2001).
disbanded and by 1732, when the War of the Polish Succession broke out, Minikh had to enlist large numbers of serfs in order to reinforce the army’s strength. With the wars against Poland, the Tatars and the Ottoman Empire at hand, the levels of recruitment rose. The number of men taken into service was comparable only to the period around the Pruth Campaign (1711) when almost the same amount was taken into service. Only in 1733 a total of over 50,000 recruits were enlisted.\(^{152}\)

In the context of 1730s conflicts Russia’s military élite had a ground to experiment with new tactics, armament and even unit types. Minikh tried to reintroduce the cuirassiers as a leading cavalry force but met the resentment of aristocracy. Another obstacle for the implementation of his ideas was the lack of good mounts, which could carry the heavy cavalry into battle. From the planned ten regiments only three were created and their functions remained limited.\(^{153}\) Dragoons remained the main type of cavalry, supporting the infantry, while grenadier and fusilier companies continued to comprise the backbone of the army.\(^{154}\)

The Tatar and the Ottoman threat in the northern Black Sea Steppe was countered by increasing the size of the Ukraine land militia. It doubled its strength in 1730 and increased twofold once more in 1733. Most of its regiments were mounted to cope with the Tatar light cavalry. To fund this new force, the military administration settled half of the regiments, granting additional land for their upkeep.\(^{155}\)

As a military engineer, Minikh concentrated on the development of engineer corps in the Russian army, as well as on the upgrading of the artillery with emphasis on siege and mobile field units. These changes led to the establishment of separate engineering corps and to the improvement of Russian artillery performance during the Russo-Ottoman War of 1736-1739. Along with the expansion of the engineers and artillery, a series of fortification improvements were made on the zasechnoy cherty, which protected Russia’s borders in the south and in the east. In addition, several fortresses were erected or upgraded on the western borderline.

Finally, Minikh’s reforms dealt with the officer corps and the military administration. Admission into the officer corps was restricted only to literates and promotion of Russian officers was implemented in contrast to the early years of Anna’s reign. Higher military education was expanded and by 1737 Minikh had personally developed a “professional portrait” for each of the leading officers in the army. These characteristics were to facsilitate Anna’s

\(^{152}\) See Table 2 in the Appendix for the current chapter.


\(^{154}\) A major change in infantry disposition was the disbandment of grenadier regiments and their distribution as companies for the fusilier regiments, as was the case during Peter’s early years. Duffy, *Russia’s Military Way*, 46.

\(^{155}\) While under Peter there were 6 regiments of Ukrainian and militia, their number grew to 10 in 1730 and to 20 in 1733. From these 20, 16 were mounted and 11 were “settled”. Davies, *Empire and Military Revolution*, 171.
decision when promoting different generals and colonels on particular field or administrative position.

In terms of size and unit distribution, the army underwent several changes during the 1730s. While in 1730 there were a total of 226,000 soldiers (61,100 guards; 60,988 infantry; 41,580 dragoons; 66,761 garrison infantry; 4,788 garrison cavalry; 10,842 land militia; 10,198 artillery; 41,580 Nizovoy corps; 319 generals) their number slightly increased and in 1732 there were a total of 230,354 soldiers in service. It is interesting that in 1736, on the eve of the Russo-Ottoman War (1736-1739), the number of troops differed little in comparison to the “peacetime” army of 1729. The total strength of the army was 240,405 soldiers in both field forces and garrisons. The field forces were generally decreased in comparison to 1732 due to the disbandment of part of the Nizovoy regiments in 1735. However, the Land Militia almost tripled in size: from 10,842 in 1729 to 27,693 in 1736.\(^\text{156}\)

Regarding conscription, a total of 308,000 men were enlisted between 1731 and 1740. This number was roughly equal to the number of men, recruited during the Great Northern War.\(^\text{157}\) The difference is that the war against Sweden continued for 21 years while the conflicts during Anna’s reign went on for only 8 years. A simple calculation defines that the average annual recruitment was of 38,500 men which is 2.5 times more than the average yearly conscription during the Northern War (14,862 men per year). Therefore, though Russia was unable to expand its forces in the scale from the previous decade, the Tsardom was able to mobilize its human resources at a greater scale. Hence, the Military Chancellery’s recruiting efficiency under Minikh surpassed the levels from the previous decades.

**Logistics and funding**

The main logistical issues during Peter’s reign continued to trouble the Empire during the 1730s. During this decade gunpowder production increased but was still on the edge of the minimum required.\(^\text{158}\) Funding was also problematic, especially for the Nizovoy corps and the irregular contingents of Cossacks and Asian tribesmen. On the other hand, the reforms of Minikh were able if not to decrease army expenses, at least to prevent further increase in the cost of maintenance. The soul tax was reduced and even the wartime rates of the takings were less than the initial amount of money acquired per person. As a whole, the army of 1736 cost almost as much as it did in 1729.\(^\text{159}\)

As mentioned above, the state was able to recruit a larger proportion of men than it did ten years before and this system was further improved due to the

\(^{156}\)Ibid., 161 – 75.
\(^{157}\) That is - 312,000. See Table 2 in the Appendix for the current chapter.
\(^{158}\) On paper the army required 60,000 puds. In order to fill in shortages, the state expanded smaller factories or relied on contractors. Beskrovnyy, *Russkaya armiya i flot*, 97-8.
\(^{159}\) Davies, *Empire and Military Revolution*, 175; see Table 5 in the Appendix for the current chapter.
better training, received by the recruits. An ordinance of 1730 forbade the usage of recruits for any purpose different than military training. This regulation was a significant step forward since one of the main reasons for desertion during the first decades of the eighteenth century was the unregulated use of soldiers for non-combat duties. In addition to the better treatment of troops, which after 1711 was a constant matter of concern to the state, the ability to muster soldiers for the field demonstrated the overall improvement of Russia’s capability to mobilize its human potential for war purposes.

1.6. Conclusion

Within regard to Russia’s military development before 1740, several trends could be pointed out. First and foremost, Peter’s reforms and the policy of his successors established a regular standing army, the size of which was impressive, compared to European standards. This army was still in a transitional condition - from a standing, yet semi-regular, force of the “old formation” to an entirely regular army of “new formation”. However, following the army regulations of 1720, the amount of “settled” units was insignificant compared to the overall number of state-funded troops. This trend can be clearly seen in the 1730s when only the Ukrainian militia was still more or less funded through land grants. While garrison troops received remuneration in land and goods, this was done only to overcome shortages in funds and was not an official state policy as it was during Aleksey’s reign. All in all, Russia was able financially to support on a regular basis the bulk of its forces and the size of its army surpassed most of that of its counterparts.

In relation to size, the army of 1736 was the same proportions as the one mustered in 1681. The differences laid in the quality of the troops, the improvements made in armament, artillery support and overall uniformity of the unit types, as well as in the regular army upkeep, training and quartering. The army of Minikh was seven times more expensive than the one, which Golitsyn started to reform in 1681. At the same time, its performance was better in the same proportion. While the old army was defeated in Crimea and at Narva, the new one was able to outmatch Sweden, conquer northern Persia, suppress uprisings along the Southern steppes and finally push back the Ottomans from their positions in the Northern Black Sea and the Dnieper basin. Though there were many setbacks and misfortunes, mostly due to logistical issues, in the end, Russia achieved its goals.

The other side of the coin was that Russia’s establishment of a regular army came at a great price. Over 720,000 men were recruited over the period in question to fill in the vacancies due to combat casualties, diseases, shortages of food, clothes, clean water and medical care. It is hard to estimate the total number of soldiers, who perished or were injured between 1700 and 1739, but
they were at least 150,000. In addition, in comparison to 1678’s figures, the conflicts brought a significant decrease of 20 per cent of Russia’s households (calculated in 1710). On the other hand, to some extent these numbers can be misleading since it was a common practice for both landlords and serfs to hide the actual number of people in one household in order to evade conscription and taxes. Nevertheless, the toll of wars was high while population growth was rather low. The lack of money and the periodical outbursts of impoverishment were a scourge for common Russians, who were also affected by harvest failure and disease.

Unlike Britain or the Dutch Republic, who had developed a banking system back in the late seventeenth century, such a system remained underdeveloped in Russia even after the Seven Years War (1756-1763). B. Davies evaluates that Russia was rather a military-fiscal and not a fiscal-military state, which used its natural resources to compensate the lack of liquid assets. However, production output increased in comparison to the seventeenth century, though it was still barely sufficient to cover army’s minimal necessities. Transportation and logistics were also problematic due to the great distances, which had to be covered during campaigns. A magazine system was established during the reign of Peter, but it could only cover a certain area of operation and proved inadequate when the army marched outside Russian territory. On the other hand, the trends of combining state-organized logistics and the application of private enterprises in order to cope with the material needs of the army, indicates a significant number of similarities in comparison to contemporary western countries. While the Tsardom was far from completing what D. Parrott has labeled the “second stage of a fiscal-military state”, Peter certainly managed to transform Russia’s military establishment into a state-dominated army with structure and organization, similar to those of France, Britain and Austria. Therefore, Davies’ general assumption that Russia was still struggling to organize the waging of war only as a sole response to overwhelming wartime circumstances in the manner of late sixteenth-century states, is rather inaccurate. Instead, in order to trace the trends of state’s evolution in early modern Russia, a more flexible approach for understanding the specifics of Petrine fiscal and military transition is needed.

The question of whether Russia’s drive toward army reform was indigenous or modeled after the trends, developed in Western Europe in the seventeenth century has dominated historiography for over fifteen decades.

160 B. Ts. Urlanis, Voyny i narodonaselenie Evropy (Moscow, 1960), 55.
161 Davies, Empire and Military Revolution, 176-9; For a comprehensive debate on the subject of military-fiscal and fiscal-military states; see C. Storrs (ed.), The Fiscal-Military State in Eighteenth-Century Europe (Farnham: Ashage, 2009).
163 For a balanced outline of the fiscal and military features of eighteenth-century Russia, see J. Hartley, “Russia as a Fiscal-Military state, 1689-1825”, in C. Storrs (ed.), The Fiscal-Military state in Eighteenth-Century Europe (Farnham: Ashage, 2009), 125-45
While western historiography and Russian imperial historians share the notion that Peter was inspired by his grand tour in the west, Soviet-era historians tend to emphasize on the “native” element in Russia’s military evolution. As it was already noted, a certain trend of continuity is evident between what Aleksey tried to achieve with the introduction of the “new model” regiments and what Peter did by reforming the army, inherited by his father and older brother. Although Russia’s first emperor was undoubtedly influenced by what he saw in France, the Netherlands and Britain, suggesting that Russia would not have made the next step in its military evolution without western influence would be imprecise. As discussed in the section on Muscovite military development, Russia developed its own unique approach toward the introduction of the latest European trends in military development. To put it in other words, western military innovations strongly influenced the development of the Petrine army, but they were transposed in a specific way in order to answer Russia’s needs. Thus, Russia’s army reforms during the first half of the eighteenth century were rather a unique element of early modern military transformation.

Until now, historiography has mainly dealt with numbers and idle figures on paper and has seldom diverted more attention on the actual performance of the Russian field armies during campaigns. Although general data points out that the military machine of the tsars needed further development and constantly had to be adjusted with funds, reforms and recruits, the campaigns themselves present a different story as it will be further analyzed in the main part of this dissertation. After calculating the potential of Russia and outlining its military evolution, the following chapter will deal with Peter’s main opponents in the course of his ambitious “march south”.

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