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MACHINE GUNS IN THE OTTOMAN ARMY AND BALKAN WARS EXPERIENCE[3]

ABSTRACT: Since they first came into being, firearms have had a continuous development. This development can be seen in methods of production as well as use. In this process, most nations supported the production of new weapons technology in order to use it for their own defense. On the other hand, nations with limited production opportunities tended to import these weapons. The Ottoman Empire, which followed the developments in weapons technology, tried to strengthen its army with advanced weapons beginning in the second half of the nineteenth century. The Ottoman Empire first imported early machine guns that had been used in American Civil War and later proved their importance in the Russo-Japanese War. In due course, the German Maxim became the main machine gun in the Ottoman army. Despite possessing different models of machine guns during the Balkan Wars, the Ottomans lost the war in all fronts and were not able to put this weapon technology into use. In this study, the entrance of modern machine guns into Ottoman inventory and the use of these weapons will be examined, this review will be evaluated within the framework of the Balkan War experience.
Keywords: Ottoman Army, Balkan Wars, Firearms, Machine Guns, Maxim Machine Gun

INTRODUCTION

The use of the firearms began with the discovery of gunpowder and the prototypes of modern firearms moved from China to Europe by various means, after which they developed over time. The first firearms were cannons, followed shortly by rifles. There were few material changes to the firing and loading mechanisms until the 19th century. However, new applications were applied to barrel structures and loading systems during the Ottoman-Russian War (Crimean War) (1853-1854) and the American Civil War (1861-1865). Rifles were loaded through the tail instead of the muzzle. Further, rifling was developed that accelerated the ammunition in the barrel to increase the range and accuracy. These rifles, which previously had a capacity of one bullet, became repeating rifles following the development of magazines and loading mechanisms. These innovations, on the other hand, were followed by the 'quick fire' property. This term, which means that a gun can fire continuously according to the frequency of feeding, also pointed to the emergence of machine guns.[4]

The Ottoman Empire used beneficially the firearms, especially during the periods of Mehmet II, Selim I and Suleyman I. It was the Empire' superiority in the use of firearms that lay behind the many military and political successes that the Empire achieved within these periods.[5] However, the Ottoman army began to

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3 This study is revised and extended form of the article previously published in *Journal of Turan-Sam* with the Turkish title of "Osmanlı Ordusunda Makineli Tüfekler ve Balkan Savaşı Tecrübesi" in 2018

4 Alfred W. Crosby, *Ateş Etmek,* (Translated by Aybek Görey), (Kitap Publishing House: İstanbul 2003), p. 41-43; Reinhold Gunther, *Allegemeine Geschichte Der Handfeuerwaffen,* (Verlag von Johann Ambrosius Barth: Leipzig 1909), p. 12-15. For detailed information about firearms, refer to J. Emerson Tennent, *The Story of the Guns,* (Longman, Roberts & Green: London 1864), Kenneth Chase, *Firearms A Global History to 1700,* (Cambridge University Press: Cambridge 2008) and August Demin, *An Illustrated History of Arms and Armour from the Earliest Period to Present Time,* (George Bell & Sons: New York 1894).

5 For information about cannon casting, gunnery and rifle manufacturing in the Ottoman Empire, refer to Halil İnalcık, "Osmanlılar'da Ateşli Silâhlar", *Belleten*, vol. XXI/83(1957), p.508-512; Salim Ayduz, *Tophâne-i Âmire ve Top Döküm Teknolojisi,* (TTK: Ankara 2006); Zafer Gölen, *Osmanlı Devleti'nde Baruthâne-i Âmire,* (TTK: Ankara 2006); Giray Fidan, *Çin'de Osmanlı Tüfeği,* (Yeditepe Publishing House: İstanbul 2011) and Kazuaki Sawai, "Japon Teknolojisine Karşı: XVI. Yüzyılda Doğu Asya'da Osmanlı Tüfeği", *Eskiçağ'dan Modern Çağ'a Ordular,* (Ed. Feridun M. Emecen), (Kitabevi Publications: İstanbul 2008)

decline and was often defeated by enemy armies. Although many arrangements were made for the army to return to its former potency, these attempts proved futile.[6] Selim III, who acceded to the throne towards the end of the 18th century, tried to modernize the Ottoman army along Western lines with his New Order (Nizâm-ı Cedîd) practices. However, he paid for these innovations with his life.[7] Mahmud II, who followed his reformist path, disestablished the Guild of Janissaries in 1826. A new army, called Asâkir-i Mansûre-i Muhammedîyye (The Victorious Soldiers of Muhammad), was established. In order to organize this army in the European style, the French procedure was adopted at first. The educators led by the French experts, who were in the employ of Husrev Pasha, one of the powerful actors of the period, assumed the task of organizing and training the new army. Eventually, military consultants from Prussia replaced the French experts.[8] These experts, who came to İstanbul in 1835 and who were known as the *Moltke Committee*, had important effects on the Ottoman army. The army was reorganized according to the Prussian system. The number of the German officers in the Ottoman army also increased with every passing year.[9] With the influence of the Prussian school over time, the Ottoman army preferred German weapons such as Krupp cannons and Mauser rifles. The dominance of German weapons in the Ottoman army, which started during the reign of Sultan Abdulmecid, increased during the reign of Abdulhamid II. Thus, Krupp cannons and Mauser rifles gradually became the cadre weapons of the Ottoman army. Excessive attention in the supply of modern firearms was also felt in the supply of machine guns. Machine guns, which came to the war field after the gun and rifle, entered into the import items in the last period of the Ottoman Empire.[10]

The first use of machine guns, which were accepted as predecessors of machine guns, occurred during the wars of the second half of the 19th century. The successful performance of the Gatling Gun during the American Civil War increased the interest in machine guns.[11] Afterwards, Hiram Maxim developed the first fully automatic machine gun. This rifle, which was qualified as the "Perfect Weapon" in those years, was named the "Maxim Machine Gun". Machine guns with different names such as

6 For information about the firepower of the Ottoman army, refer to Gabor Agoston, "Military Transformation in the Ottoman Empire and Russia, 1500-1800", *Explorations in Russian and Eurasian History,* vol. 12/2, (2011) p. 281-319; the same author, *Guns for the Sultan Military Power and Weapons Industry in the Ottoman Empire,* (Cambridge University Press: Cambridge 2005); Jonathan Grant, "Rethinking the Ottoman 'Decline': Military Technology Diffusion in the Ottoman Empire, Fifteenth to Eighteenth Centuries", *Journal of World History,* vol. 10,/1(1999), p. 179-201; Virginia Aksan, "Breaking the Spell of the Baron de Tott: Reframing the Question of Military Reform in the Ottoman Empire, 1760-1830", *The International History Review,* vol.24/2 (2002), p. 253-277; Müçteba İlgurel, "Osmanlı İmparatorluğunda Ateşli Silâhların Yayılışı", *İstanbul University History Journal*, vol. 32, (1979), p.301-318 and *The Oxford History of Modern War,* (Ed. Charles Townshend), (Oxford University Press: Oxford 2000).

7 Kemal Beydilli, "III. Selim: Aydınlanmış Hükümdar", *Nizâm-ı Kadim'den Nizâm-ı Cedîd'e,* (Ed. Seyfi Kenan), (ISAM Publications: İstanbul 2008) and Fatih Yesil, "Nizâm-ı Cedîd Ordusu'nda Tâlim ve Terbiye (1790-1807)", *Tarih Dergisi,* vol. 52, (2011), p. 27-85.

8 Yüksel Çelik, "Asâkir-i Mansure Ordusu'nda Talim Sisteminin Değişmesi ve Avrupalı Uzmanların Rolü (1826-1839)", *Türk Kültürü İncelemeleri Dergisi,* vol. 19, (2008), p. 87-118; the same author, *Şeyhü'l-Vüzerâ Koca Hüsrev Paşa II. Mahmud Devrinin Perde Arkası,* (TTK: Ankara 2013), p. 272-275; Veysel Şimşek, "The First Little Mehmeds: Conscripts for the Ottoman Army 1826-1853", *Osmanlı Araştırmaları,* vol. XLIV, (2014), p. 265-311 and Veli Şirin, *Asâkir-i Mansûre-i Muhammediyye Ordusu ve Seraskerlik,* (Tatav Publications: İstanbul 2002), p. 40-44.

9 Reinhold Wagner, *Moltke und Mühlbach Zusammen Unter dem Halbmonde 1837-1839 Geschichte der Sendung Preussischer Offiziere Nach der Türkei 1837, des Kurdenfeldzuges 1838 und des Syrischen Krieges 1839,* (Verlag von A. Bath: Berlin 1893), p. 16-25; Ömer Subhî, *Feld Mareşal Fon Moltke,* (Istepan Printing House: İstanbul 1308), p. 33-36; Kazım Karabekir, *Türkiye'de ve Türk Ordusunda Almanlar,* (Prepared by Orhan Hülagu–Ömer Hakan Özalp), (Emre Publishing House: İstanbul 2001), p. 21 and Fahrettin Tızlak, "Helmuth von Moltke İsmi Etrafında Gelişen Osmanlı Alman İlişkileri", *Türk Alman İlişkilerine Farklı Disiplinlerden Bakış*, (ed. Mehmet Altunkaya-Kemal Demir-Diren Çakılcı), (Konya: Palet Publishing 2019), p. 13-45.

10 Holger H. Herwig, "The Prussian Model and Military Plannig Today", *JFQ*, v .42, (1998), p. 67-75; Mesut Uyar and Hayrullah Gök, "Modern Alman Ordusunun Temelini Teşkil Eden Prusya Askeri Sisteminin Gelişmesi ve Olgunlaşması (1640-1871), *Kara Harp Okulu Bilim Dergisi*, v 13/1, (2003), p. 1-28; for detailed information about the German effects on the Ottoman Army, refer to İlber Ortaylı, *Osmanlı İmparatorluğu'nda Alman Nüfuzu,* (İletisim Publications: İstanbul 1998) and Jehuda L. Wallach, *Anatomie einer Militaerhilfe, "Die preussisch-deutschen Militaermissionen in der Türkei 1835-1919",* (Droste Verlag: Düsseldorf 1976).

11 For detailed information about the machine guns, refer to James H. Willbanks, *Machine Guns,* (ABC-CLIO Inc.: Santa Barbara 2004), p. 28-33 and Stephan C. Small, "Hiram Maxim and His Machine Gun: A Great Force Harnessed to a Useful Purpose", *NDIA International Small Arms Symposium, Exhibition and Firing Demo*: 2008. For more information of Sir Hiram S. Maxim and his designs refer to P. Fleury Mottelay, *The Life and Work of Sir Hiram Maxim,* (John Lane, The Bodley Head: London 1920).



the Schwarzlose (Austria-Hungary) and the Hotchkiss (French) were manufactured as well as Maxim.[12] Machine guns achieved their actual reputation during the Russian-Japanese War (1904-1905). This war clearly demonstrated the effect of serial, intensive and successful firepower in battles on the outcome of the war.[13] After this war, machine guns were named the 'gun of the future' by military experts and started to be included in the supply list of almost all state armies.

The development in the production of machine guns led to the emergence of fully automatic machine guns. The most important feature of these weapons; automatic ignition with the power of gunpowder gas and the resulting series fire after firing once, not through a mechanical intervention. The experience gained by the use of machine guns in wars led these weapons, which were previously perceived as artillery weapons, to be considered as infantry weapons, especially after the Russian-Japanese War. In parallel with its course in the world, modern machine guns began to be used in the Ottoman army before the Balkan Wars. However, the name of the mitrailleuse, which was given the previous multi-barreled and mechanical weapons, continued to be used for machine guns. The fact that this war ended with great defeat also showed how important it is to use the weapons properly and effectively. This was also highlighted in publications that examined the status of machine guns and the troops using them in the war in question.[14]

This article will focus on the start of the use of machine guns in the Ottoman army, and evaluate the situation in the Balkan War, when these weapons were first used. The pre-war arrangements for the use of machine guns will be examined, and the errors affecting the performance of the weapons in the war will be emphasized. For this purpose, the negative effect of the errors observed in many issues from the selection of the personnel to use the weapons to the diversification of the fire on the position of the Ottoman machine gunner in the war will be evaluated. In these reviews and evaluations, besides the archive sources, machine guns and works related to their use will be used by the Ottoman officers as the main sources.

Machine Gun Supply in the Ottoman Army

The Ottoman Empire, which aimed at establishing a new and modern army in the first half of the 19th century, closely followed the developments in the weapon industry. Especially after its heavy defeat by the Russians in the 1877-1878 War, important efforts were made in this field and leaders tried to supply modern weapons quickly. Many methods were tried to purchase arms for the Ottoman army. For instance, officers stationed in relevant Ottoman embassies in major states used to immediately inform İstanbul about new weapons or new models. Likewise, staff of the foreign embassies in İstanbul or representatives of weapon companies used to rapidly notify their counterparts in the capital about new products and new models. Sometimes even the company owners used to contact directly the palace in order to sell weapons. Afterwards, competent army officers were assigned to acquire arms and these officers performed the duty in the 'Committee of Purchasing'

12 (Major) F. V. Longstaff and A. Hillard Ateridge, *The Book of The Machine Gun*, (Hugh Rees Ltd.: London 1917), p. 23-28; J. Willbanks, *ibid,* p. 54-56 and Jack R. Nothstine, "The Development of the Machine Gun and its Impact on the Great War", *Infantry*, vol. 1/105 (2016), p. 52-58.

13 William Hammac, *The Russo-Japanese War of 1904-1905 and the Evolution of Operational Art,* (School of Advanced Military Studies United States Army Command and General Staff College: Kansas 2013), p. 4-6; *History of Machine Guns and Automatic Rifles*, (Small Arms Division Office of Army Ordnance: Washington 1922), p. 11-13 and 26-38; John Ferris, "Turning Japanese: British Observation of The Russo-Japanese War", *Rethinking The Russo-Japanese War, 1904-05, Volume II:The Nichinan Papers*, (ed. John W. Chapman–Inaba Chiharu), (Kent: Global Oriental 2007), p. 119-135. Also refer to (Lieutenant) A. Fuad and (Lieutenant) O. Senâi, Musavver *1904-1905 Rus-Japon Seferi,* (Kitabhâne-i İslam ve Askerî: İstanbul 1321).

14 BOA, I.MMS 70/3271; BOA, HR.SFR.3 295/97; BOA, HR.SFR.3 299/62 ve BOA, Y.PRK.ASK 15/49; Mehmed Arif, *Makineli Tüfenkler*, (Kitabhâne-i İslâm ve Askerî: İstanbul 1327), p. 8. [The author of the book is Mehmed Arif Bey. His nickname is Ayıcı (bear-leader) Arif and he is one of the famous figures of the Turkish War of Independence. He studied machine guns in the German army between 1909 and 1911 and specialized in these weapons. After returning to İstanbul, he was assigned as a Machine Gun Trainer at Maltepe Endaht (Shooting) School. He conveyed his experiences in writing, and booked Ottoman Army's machine gun experiences during the Balkan Wars. In addition to being Mustafa Kemal Atatürk's classmate, his physical resemblance to Atatürk is also a remarkable detail. His last rank was Colonel and he was the Eskişehir Deputy in the Turkish National Assembly. On the other hand, Ayıcı Arif was judged on the grounds of his involvement in failed İzmir Assassination Attempt against Mustafa Kemal Pasha and was executed in 1926. For more information refer to (Eskişehir Mebusu) Mehmed Arif, *Anadolu İnkılâbı Mücâhedât-ı Millîye Hâtırâtı 1335-1339*, (İkdâm Mat'bası: İstanbul 1340), Also refer to Nazmi Eroğlu, Ayıcı Ârif, *Atatürk'ün Okul ve Silah Arkadaşı Miralay Mehmed Ârif Bey, Hayatı, Konuşmaları ve Eseri*, (Yeditepe Yayınevi: İstanbul 2015)]

responsible for the purchase of new products or latest model weapons. They performed quality and standard controls of the weapons on site, and then prepared their reports on whether or not the weapon would be purchased.[15]

Indeed, these soldiers were active mostly in the purchase of machine guns. Mechanically operated machine guns were purchased first. [16] Following the invention of the fully automatic machine gun by Hiram Maxim, the Ottoman Empire was among the first customers for this rifle, and the 1893 and 1895 models were purchased first.[17] Afterwards, the German Maxim, which had the best ballistics and mechanical systems and which also made a burst in the most proper manner, was preferred.[18] Another important reason that the Ottoman General Staff preferred the German Maxim was that this weapon could be produced with the same diameter as the Mauser rifles at 7.65 mm.[19] Since machine guns were weapons that had a rapid and quick fire capability, ammunition consumption was significant.[20] With this preference, the Ottoman General Staff wanted to supply these weapons from already available ammunition. Although the Ottoman military government preferred the German Maxim, it also imported the French Hotchkiss Machine Guns both to try out and possibly to establish diversity and redundancy.[21] Soldiers

15 BOA, Y.PRK.ASK 104/48 and BOA, Y.MTV 286/53; Uyar and Erickson, summarize the efforts of Sultan Abdülaziz in providing modern weapons and the effect of this effort on the war as follows: *Thanks to the attention and efforts of the late Sultan Abdülaziz, the Ottoman military was better equipped and armed in this war than in previous wars. The Ottoman infantry used rapid-fire modern rifles such as the American Martini-Peabody (a close copy of the British Martini-Henry) and the British Snider, which were far superior to the Russian Krnk and Berdan rifles. Similarly, cavalry was armed with the Winchester Model 73 and Martini-Peabody carbines. However, not all units were able to make use of them effectively, especially reserve units that were called up at the very last minute. The imported Krupp steel cannons especially showed their worth during Siege of Plevna in 1878. Abdülaziz's decisions to improve the Tophane artillery foundry and other military industrial institutions by acquiring steam machinery, to hire British and American engineers and foremen, and to introduce the British Woolwich system turned out to be very wise decisions. These improvements paid off during the war years when both Britain and France enforced a semi-official embargo of military related merchandise to the Ottoman Empire. Additionally, the quality of gunpowder and cartridges produced by these factories was of superior quality. The Ottoman rifle factory converted thousands of old rifles to the Snider design, which were then distributed to newly recruited third-line Redif battalions. Finally, the baggy-looking Ottoman uniforms were more functional and sturdy than Russian ones, and winter clothing, backpacks, and blankets were of higher quality as well.* Mesut Uyar and Edward J. Erickson, *A Military History of the Ottomans*, (ABC-CLIO, LLC: Santa Barbara 2009) p. 200-201.

16 ATASE, ORH 117/ 81/74 and ATASE, ORH. 316/750. Producers informed the Ottoman administration in various ways in order to sell their newly developed systems and weapons. The embassies and officials working abroad played an important role in delivering this information to the Palace. The situation was the same for machine guns. Mr. Kristof, who claimed to be the inventor of the Mitrailleuse and Mister Burton, who claimed that he produced the Martini-Henry rifles with repeated fire, were two good examples. BOA, Y. PRK. BŞK. 59/33; BOA, HR.SFR.3. 405/77.

17 Sir Hiram S. Maxim was awarded for his contribution to the Ottoman firepower with the systems he developed. It is known that the owners and employees of Mauser and Krupp were rewarded in this way from time to time. This indicates that the importance given to the firearms by the Palace also shows that the efforts to maintain good relations with the producers. BOA, İ.TAL, 40/7, 62/23 and 502/38.

18 Mehmed Arif, *Makineli Tüfenkler*, p. 8. The water-cooled system, which was discovered by Hiram Maksim, was used also by different weapon manufacturers and named the Maxim-Vickers, Maxim-Nordenfield and German Maxim (BOA, Y.PRK.ASK 222/99 and 252/47). These weapons, which were purchased from England within the initial periods, were supplied from Germany upon the start of their production in Germany. For detailed information about the German Maxim machine guns, refer to Martin Pegler, *The Vickers-Maxim Machine Gun*, (Osprey Publishing: Oxford 2013), p. 17 and Stephen Bull, *German Machine Guns of World War I*, (Osprey Publishing: Oxford 2016). Also, refer to Bülent Durgun, "Turkish-German Military Relations and the Balkan Wars", *Tarih ve Günce*, vol.I/1, (2017), p. 217-238 and Fahri Türk, *Türkiye ile Almanya Arasındaki Silah Ticareti (1871-1914),* (IQ Publications: İstanbul 2012).

19 BOA, BEO, 3002/225132 and 2590/221192; BOA, İ. HUS. 151/35; The original diameter of German Maxim was 7.92 mm. For more information refer to Thomas Buchholz-Thomas Brüggen, *Deutsche Maschinengewehre Entwiklung, Taktik und Einsatz von 1892 und 1918*, (Wien: Verlag Militaria, 2019), Also refer to *7,9 Milimetrelik Alman Makineli Tüfenlerinin Sûret-i İsti'mâline Dâir Risale*, (Müt. Hüsnü – Mustafa Hamdi), (s.n. / nd.).

20 In line with the general perception in the world, the first examples of machine guns in the Ottoman army were perceived as artillery weapons. The use of the phrase "Gatling Guns" for the weapons of different manufacturers is also the expression of this perception. BOA, H. SFR.3. 291/64, İ.HUS. 44/95, İ. ML. 10/52.

21 BOA, Y.A.HUS 506/40; BOA, BEO, 2680/220907 and BOA, Y.MTV 310/6. For information about Hotchkiss Machine Gun, refer to Refik, *Hoçkis Makineli Tüfenkleri Ta'rifnâmesi,* (Askerî Matba': İstanbul 1926). While clones of cannons and rifles -purchased from abroad- are produced in Ottoman military facilities, there is no such production information about machine guns. This may be due to the fact that the need for these weapons remains secondary to the cannons and rifles, with machine guns coming to the warfare field later. The other possibility is that foreign manufacturers have fulfilled the need in the provision of machine guns. For detailed information about manufacturing in Ottoman military production facilities, refer to Fatih Tetik, *Sultanın Silahları II. Abdülhamid Dönemi Savunma Sanayii ve Silah Teknolojisi (1876-1908)*,



were sent abroad, especially to Germany, in order to learn how to use the machine guns. The Ottoman General Staff subjected the soldiers in the country, on the other hand, to training in the use of both weapon types. The Ottoman General Staff, which was aware of the importance of machine guns and the troops equipped with these weapons, added 'Machine Gun Companies' to the army order and these companies were assigned to support the infantry with machine gun fire. It also included issues related to the proper use of machine guns in its infantry instructions.[22]

Towards the War

The weapons held by the states which participated in the Balkan Wars were generally of German, French, Austro-Hungarian or Russian origin. Although these weapons had basically the same characteristics, there were certain changes in their usage procedures. Krupp cannons, which were available in the Ottoman army, were also used in the Bulgarian, Greek and Montenegrin armies. Maxim machine guns were usedin the Bulgarian, Serbian and Montenegrin armies. And Mauser infantry rifles were used in the Serbian army.

Table-1: Warring Factions in the Balkan Wars and their Weapons

Weapon	Ottoman Empire	Bulgaria	Greece	Serbia	Montenegro
Infantry Rifle	Mauser (German)	Mannlicherr (Austria)	Mannlicherr (Austria)	Mauser (German)	Gra (France) Berdan (Russia)
Machine Gun	Maxim Gun (German) Hotchkiss (France)	Maxim Gun (German)	Schwarzlose[1] (Austria)	Maxim Gun (German)	Maxim Gun (German)
Cannon	Krupp (German) Schneider (France)	Krupp (German) Schneider (France)	Krupp (German) Schneider (France)	Schneider (France)	Krupp (German)

1 The Ottoman administration, which purchased machine guns from Germany and France, was closely following the developments in the weapon systems. Schwarzlose Machine Gun, a successful Maxim clone that was released later on, was also purchased in this context. BOA, Y. PRK. BŞK. 59/33, BOA, İ.AS. 75/14. For technical details of Schwarzlose Machine Gun refer to *Instruktion Uber die Einrichtung und Verwendung der Maschinengewehre*, (k.k. Hof. und Staatdruckerei: Wien 1913).

During the Balkan Wars, the Ottoman army's main machine gun was the 7.65 mm M1909 model German Maxim. Before the war,[23] 97 machine gun companies were established in the Ottoman army, each of which was composed of 4 machine guns and 388 rifles in total. It was planned that 57 such companies would campaign and that bullets for 40,000 shots would be supplied for each rifle in a possible Balkan War. However, such plans could not be realized and 48 machine gun companies with a total of 192 rifles were able to participate in the Balkan Wars. 6 of these companies were assigned in the defense of Edirne, 23 were in the Eastern Army and 19 were in the Western Army.[24]

(Dergâh Publication: İstanbul 2018), also refer to Serdar Soyluer, "Tüfekhane-i Âmire'yi Mamur Kılmak: Osmanlı Tüfek İmalatında Avrupalı Uzmanların Rolü", *Ottoman Studies*, v. LII, (2018), p. 267-309.

22 Refer to "Edirne'de Makineli Maksim Toplarının Endâht Tecrübesi", "Edirne'de Hotchkiss Mitralyözlerinin Endâht Tecrübesi", *Şehbâl,* 1 August 1325 and "Makineli Tüfek Kursunu Tamamlayan Osmanlı Subayları", *Şehbâl,* 15 September 1328. For information, refer to *Makineli Tüfenk Bölüklerine Mahsus Endâht Nizamnâmesi,* (Matba'-ı Askerîye: İstanbul 1325). Also, refer to (Commander of the Machine Gun Company of the Gunnery School) Mehmed Arif, *Balkan Harbinde Makineli Tüfenkler,* (Terkos-Darbogaz: 1329), p.5-6.

23 Although the Machine Gun Companies were established lately compared to other troops, the Ottoman General Staff is aware of the importance of these troops. As the danger coming from the West is thought to be the Bulgarian Army. For this reason, the condition of the machine gun troops of the armies IInd and IIIrd -which were located in Rumelia- was carefully monitored. Making the necessary arrangements to supply the needs of the machine gun troops and make them ready for the war was also among the important topics that were followed. BOA, Y.PRK.KOM. 15/41; Y.MTV. 309/99; İ.HUS.155/46; BEO 3426 /256919; İ.AS.88 /29; BEO 3704/277734.

24 Rıdvan Taşkaya, *Osmanlı Ordusu'nda Makinalı Tüfek Kullanımına Geçiş (1908-1918),* (Unpublished Master Thesis, İstanbul University, Institute of Social Sciences, 2016), p. 56-58; Serkan Er, "Balkan Harbi'nde Osmanlı Ordusunun Seferberlik Planı", *Tarih Dergisi*, vol 59 (2014), p.137-188; T. Nejat Eralp, *Tarih Boyunca Türk Toplumunda Silâh Kavramı ve Osmanlı İmparatorluğunda Kullanılan Silâhlar*, (TTK: Ankara 1993), p. 136; Edward J. Erickson, *Büyük Hezimet Balkan Harpleri'nde Osmanlı Ordusu,* (Translated by Gül Cağalalı Güven), (İş Bankası Publications: İstanbul 2013), p. 82-83 and Bülent Durgun, "Sefer Planlarında ve Balkan Harbi'nde Osmanlı Ordusunda Menzil Teşkilatı", *Çağdaş Tür-*

The number of machine guns held by Bulgaria during the war was 232. 144 of these machine guns were M1908 German Maxim and they were purchased in 1908. Greece had 84 Schwarzlose M1907 model machine guns. The Serbian army had 230 Maxim M1909 rifles, while Montenegro had only 12 Maxim machine guns.[25]

Considering the weapon preferences of the fighting armies, it is revealed that the Balkan Wars is a war in which modern weapons compete. As a result of the arms race, it is understood that the Balkan armies modernized their weapons to a great extent, and the machine guns were included in the modernization. [26] Another remarkable point was that it was noticed that Germany, which was in close contact with the Ottoman Empire in those years, did not take sides in the sale of weapons. [27]

War and Use of the Machine Guns in the Ottoman Army

The Balkan Wars started on 8 October 1912 when Montenegro declared war against the Ottoman Empire. The war ended with the London Treaty signed on 30 May 1913 as a result of the unexpected defeat of the Ottoman army along all fronts despite its modern military. Many cannons and machine guns were abandoned to the enemy forces during retreats and surrenders. This heavy defeat, which was called "The Great Defeat" by the Ottoman soldiers, had many military and political reasons.[28]

Political instability, weak management and the division of the army into political camps were essential reasons. In the operations carried out by the three allied armies against the Ottoman army, on the other hand, the Bulgarian army was superior than its allies in terms of soldiers and weapons. Thus, the outcome of the war was determined by the invasion of Edirne by the Bulgarian army.[29]

Machine guns and machine gun troops provided many benefits for the fighting forces and their importance was understood after the Russian-Japanese War. These benefits were the superiority of firepower, mobility and the psychological support advantage. The most important one of these benefits was the firepower of the machine gun troops. They could fire 400 to 600 bullets per

kiye Tarihi Araştırmaları Dergisi, XIV/29, (2014),p 57-99. Also, refer to "Sirkeci İstasyonu'nda Süvari ve Mitralyöz Nakliyatı", *Şehbâl*, 1 Teşrîn-i Sâni 1328.

25 Philip S. Jowett, *Armies of the Balkan Wars 1912-13*, (Osprey Publishing: Oxford 2011), p. 33- 34; K. Adaridi, *Tecârib-i Harbîyeye Müstenid Ağır ve Hafif Makineli Tüfenkler Tab'iyesi*, (Müt. Fâik İsmail), (İlhâmi – Fevzî Matba'sı: İstanbul 1926), p.12-13. The weapons seized during the battles are not included in these numbers.

26ATASE, ISH 38/ 3954 / 21; (Major) Hakkı, *Balkan Hükûmetlerinin Kuvve-i Hazarîye ve Seferîyesi,* İstanbul 1326, *Bulgar Ordusu Hakkında Muhtasar Risâle,* (Karargâh-ı Umûmî İstihbârât Şu'besi: s.l. 1331; *Yunan Ordusu Hakkında Muhtasar Risâle,* (Karargâh-ı Umûmî İstihbârât Şu'besi: s.l. 1331; *Sırb Ordusu Hakkında Muhtasar Risâle*, (Karargâh-ı Umûmî İstihbârât Şu'besi: s.l. 1331; *Karadağ Ordusu Hakkında Muhtasar Risâle*, (Karargâh-ı Umûmî İstihbârât Şu'besi: s.l. 1331 and Ragıb Rıfkı, *Balkan Hükûmetlerinin Teşkilât-ı Askerîyesi*, (Şems Matba'sı: Ders'âdet 1328-1330).

27 Pegler, p. 17; Roy M. Marcot, "The Development of the Gatling Gun", *American Society of Arms Collectors Bulletin*, vol.65, (1991), p.26-35; W. Hammac, *age,* p. 4-6.

28 Fevzi Çakmak, Batı Rumeli'yi Nasıl Kaybettik?, (Published by Ahmet Tetik), (İş Bankası Cultural Publications: İstanbul 2012), p. 13; Lieutenant İzzeddin (Çalışlar), "Yenilginin Başlangıcı Hezimetin Nedenleri", Yüz Yıl Sonra Balkan Savaşları Tarafların Gözüyle Büyük Yenilginin Eleştirisi, (Published and Prepared by Mesut Yaşar Tufan and İzzeddin Çalışlar), (İş Bankası Cultural Publications: İstanbul 2014), p. 25; Ali İhsan Sabis, Balkan Harbinde Neden Mağlup Olduk?, (Published and Prepared by Hasip Saygılı), (İlgi Kultur Sanat: İstanbul 2014), p. 32-34.

29 Birinci Ferik Zeki, *Bazı Osmanlı Seferleri Hakkında Mütâla'tım*, (Matba'-i Askerîye: Ders'âdet 1339), p. 64; Güney Dinç, *Mehmed Nail Bey'in Derlediği Kartpostallarla Balkan Savaşı (1912-1913),* (YKY: İstanbul 2013), p. 39-40 and *Osmanlılar Muhârebelerini Nasıl Kaybettiler? Şimdi Nasıl Telâfi ve Terakkî Edebilirler?: Von der Goltz ve Imhoff Paşaların Mütalaatı,* (Published and Prepared by Adil Nâmi), (Cemiyet Kitabhânesi: İstanbul nd.); Uyar and Erickson point to the importance of Balkan War defeat of Ottoman Army in their study as emphasize the importance of the subject by giving the relevant section in the title: "Balkan Wars: Losing the Core Regions". According to them, the impact of the Balkan defeat is summarized as follows: *The Ottoman military was clearly defeated in a series of mostly independent and unconnected battles. Seemingly, the only bright spots were the stubborn defenses of the three fortress cities (Edirne, Yanya, and İşkodra) and the Çatalca line. For many western observers of the war, it confirmed European prophecies of decadence and the inevitable collapse of the empire. In fact, most of them merely witnessed the flight of the southern wing of the Eastern Army after Kırkkilise and Lüleburgaz, or they witnessed the long convoys of refugees fleeing from the wrath of Balkan conquerors. They did not observe or understand how the Ottoman military functioned before and during combat. Consequently, they were unable to identify the real reasons behind the defeats. However, despite this serious limitation, their portrayals of the Ottoman military strengthened the already well-established European stereotype and biased view—that of a notoriously corrupt and degenerate army commanded by untrained, ignorant, and incapable officers. This view affected western political and military decision-makers before and during World War I and, surprisingly, still persists today*. Uyar and Erickson, ibid, p. 232.



minute. The machine gun troops deployed on-site, making maximum use of the field conditions, detained the enemy forces with the serial and dense firepower they provided, and in this way, they were able to ensure that infantry and cavalry forces which they took under protection could proceed safely even over long distances. The second benefit was the mobility of the machine gun troops. These troops, which were quick moving, became a powerful piece against enemy infantry and cavalry and prevented them from advancing. The third benefit was the psychological support advantage. Indeed, the combination of successful machine gun fire with artillery fire brought the soldiers into a fervor and caused confusion and fear in the enemy positions, so the course of the war was changed. Likewise, in the event of possible indiscipline and turmoil, the machine gun could also prevent the soldiers from escaping from the battlefield with harassment fire.[30]

Despite these advantages of the machine guns and machine gun troops, the Ottoman army did not benefit from them during the Balkan Wars for many reasons. The first reason was that some officers, especially some senior commanders, did not have sufficient knowledge about machine guns. Hence, they did not know that machine guns were an infantry weapon and they compared these weapons to their mountain artillery. These deficiencies at the command level, on the other hand, caused the troops performing machine gun fire to not be able to fulfill their duties properly.[31]

Another reason for the failures in the use of machine guns during the Balkan Wars was the absence of machine gun personnel who were both adequately trained and had sufficient physical strength. Since machine gun troops were technical troops, many precise controls and important works had to be carried out together. A machine gun team serving in the Ottoman army was composed of 5 or 6 soldiers and a sergeant called "*tufenkçibaşı*". The "marksman", who was assigned to use and fire the weapon, performed the most important task. However, for the success and continuous course of fire, other soldiers in the team also had to fulfill their duties completely. It was the duty of the other soldiers in the team to handle the animals carrying the weapon, to make preparations in order to properly place the weapon in the field, to carry the necessary ammunition and to feed the ammunition while the weapon was fired. For this purpose, the soldiers who served in the machine gun troops had to be selected very carefully and well trained because these soldiers performed many of the duties included among the services of the cavalry, infantry, artillery and purpresture classes concurrently. Talented, strong and nimble soldiers had to be selected for duties such as digging holes, leveling the field, loading animals, installing the gun and calculating the target correctly, if necessary. Since every soldier was not suitable for machine gun service, if necessary the soldiers had to work with digging tools and make the weapon ready for fire. In this context, the personnel in the machine gun troops had to be stronger than the common soldiers. As a matter of fact, in the places such as the field conditions where animals could not walk, soldiers were required to carry the weapons for miles. However, due to the lack of such soldiers, Ottoman machine gun fire which did not become organized during the battles and represented little more than a loss of ammunition. Essentially, the number of the soldiers in these teams had to be increased to 10 in order to ease the load on the machine gun troops. Likewise, fresh soldiers required training of at least 4 months, 6 or 8 weeks of which was process specific to infantry training, and the rest to machine gun training.[32]

Another reason for the failure was that Ottoman troops could not take advantage of the field conditions sufficiently during the battles and could not hide their machine gun

30 Capt. Mehmed Arif who says *"Makineli tüfenkler kendi piyadeleri için hakikî bir hâmî, düşman piyadelerine karşı ise bir cânîdir"* expresses that the Ottoman infantry was very glad from machine gun support, when cover shooting began infantry become courageous, even some infantry rise up and lit smokes (refer to *Balkan Harbinde Makineli Tüfenkler* p. 9-18).

31 Hence, Capt. Mehmet Arif expressed this situation as follows: "*Most of the officers and especially the commanders in our army did not see the machine guns as infantry weapons, they thought they had a great range like their effects, more precisely, they would compare it to the Cebel balls because they had an observation*". And "*Whereas, machine guns are a serial 'and a repeated firing infantry weapons. Its diameter, range, sight… is no different from a Mauser. Consequently, machine guns fight only within the scope of the opposition, where infantry can open fire. Otherwise, they will not provide any benefit other than spending ammunition. The value and importance of the machine guns arise from the fact that due to the tightness of the beam and the speed of firing, they form an intense firepower on a small front and, in addition, provide a serial and precise effect at the desired point.*" (*Balkan Harbinde Makineli Tüfenkler*, p. 7, 8).

32 M. Arif, *Balkan Harbinde Makineli Tüfenkler,* p. 34-51. Also, refer to *Şehbâl*, 15 September 1328.

emplacements. These Ottoman troops were quickly detected by enemy forces and were eliminated in short order by counter artillery and machine gun fire.

The last reason for the failure of the Ottoman forces to effectively use machine guns during the Balkan Wars was that some difficulties were encountered during the use of the German Maxim. In the Maxim, water was needed to cool the barrel and other parts. The system was cooled by means of water in a basin called the 'water jacket', and thus the effective use of the weapon was ensured. However, such water requirements made the rifle heavy and the overheating of the water made the water requirement permanent. In addition, the steam that occurred as a result of heating the water prevented the effective shooting of the marksman. In this context, the Ottoman soldier, who hardly attained his need for drinking water during battles, had to carry kilos of water. This situation, which made transportation difficult and the load heavy, prevented the efficient use of the Maxim.[33]

Another problem encountered in Maxim was that these weapons were quite useless in the trenches. It was not possible to shoot on foot when the gun was installed in the trench, so the portable chair added to the weapon was quite useless. Another difficulty encountered in the Maxim was that the trigger system of the weapon was very hard. The trigger had to be kept pressed continuously during the battle. This caused the gunner to get tired and to have a focus problem. Consequently, Ottoman forces did not sufficiently benefit from the German Maxim machine guns.[34]

CONCLUSION

Before the start of the Balkan Wars, the Ottoman military had the appearance of a modern army, with the support of external military experts and the application of innovations into practice. Modern firearms, one of the most important indicators of the modernity of the army, were also included in the purchase list of the Ottoman General Staff. In this context, machine guns which were recently included into army systems and were purchased along with the newest guns and rifles. Nevertheless, the Ottoman army, which was equipped with the most modern weapons and was superior to its enemies in terms of equipment and ammunition, was surprisingly defeated in the Balkan Wars. Political and military control weaknesses, indiscipline, logistics problems and mobilization problems were crucial in this defeat. Apart from the exceptions, the fighting officers and soldiers had no more duty conscious. Under these conditions, the machine guns, which were also called the "Gun of Future", could not be used effectively. Vital problems, such as lack of trained and qualified soldiers, logistics problems and even lack of knowledge about the machine gun, were effective in this situation. However, it was understood that the defeat of the Ottoman armies in a short time that other alliance forces, especially the Bulgarian army, were better equipped and trained in terms of preparation for war, military order and command of military equipment. The Balkan defeat showed the Ottoman General Staff that all its soldiers, from foot soldiers to senders, and the entire army system, must work in coordination for the success of the army. The Ottoman military government, which took lessons from this heavy defeat, tried to improve the army by taking the necessary measures over a short time period. In the front lines of the First World War, this newly prepared army fought.

33 M. Arif, *Balkan Harbinde Makineli Tüfenkler,* p. 19-28. Hall highlights the impact of new practices in the Battle of the War, including the widespread use of machine guns, on war history: *The experience of the Balkan Wars singularly failed to enlighten the military establishments of the other European states about the nature of modern warfare. These soldiers would undergo many of the same experiences that Balkan soldiers had endured, facing each other moldering in trenches, massing infantry attacks in the face of heavy artillery fire, charging into the maws of machine guns. One reason other states did not learn from the Balkan Wars was the brief time between the cessation of fighting in the Balkans at the end of July 1913 and its renewal precisely one year later. The European military establishments did not have time to assimilate the lessons of the fighting.* Richard C. Hall, *The Balkan Wars 1912-1913 Prelude to First World War*, (Routledge: London & New York 2000), p.133-143.

34 M. Arif, *Balkan Harbinde Makineli Tüfenkler,* p. 29-33.

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H. SFR.3. 291/64; 295/97; 299/62; 405/77
İ. HUS. 44/95, 151/35; 155/46;
İ. ML. 10/52
İ.AS. 75/14; 88 /29.
İ.MMS 70/3271.
İ.TAL, 40/7; 62/23; 502/38.
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ادرنه‌ده ماکسیم طوپلرینك اتداخت تجربه‌سی
Andrinople — L'essai des Canons Maxim.

Appendix-1: Test Shooting of Maxim Machine Guns in Adrianople (*Şehbâl,* 1 August 1325 [1909])



ادرنه‌ده هوچکیس میترالیوزلرینك اتداخت تجربه‌سی
L'essai des Mitrailleuses Hotchkiss à Andrinople.

Appendix-2: Test Shooting of Hotchkiss Mitrailleuses in Adrianople (*Şehbâl*, 1 August 1325 [1909])



Appendix-3: Ottoman Officers Completing the Machine Gun Trainings (*Şehbâl*, 15 September 1328 [1912])



Appendix-4: The Cavalry and Mitrailleuse Transportation at Istanbul Sirkeci Station (*Şehbâl*, 1 October 1328 [1912])



Appendix-5: Turkish Mitrailleuses Ready to the Attack of the Bulgarian Army (*Şehbâl*, 1 October 1328 [1912])



Appendix-6: One of the Mitrailleuses Captured from the Bulgarians in Adrianople (*Şehbâl*, 15 September 1329 [1913])