When Communications Entered the War

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Abstract—**One of the first military applications of the telegraph, for tactical purposes, took place during the war between Brazil and Paraguay, from 1864 to 1870. General Solano Lopez managed to command his troops from his campsite using a telegraph system. When Brazil declared war against Paraguay, attention was turned exclusively to the south, and a line connecting Rio de Janeiro to the province of Rio Grande do Sul was built in only six months. This paper discusses the first use of electrical communication for military purposes in Latin America from a historical perspective.**

Keywords— **Telegraphy. Triple Alliance War, War between Brazil, Argentina Uruguay and Paraguay. Communications during the war.**

I. Introduction

The XIX century was prodigious in terms of technological ingenuity. Several instruments and knowledge based processes appeared which allowed to break the long-standing inertia of the previous centuries and set the stage for an unprecedent era of creativity. The Industrial Revolution began and, for the art of war, the period brought great innovations [1].

The invention of canned beef, dried milk (powder) and margarine, between 1840 and 1860, solved difficult problems of feeding the troops, which permitted them to operate at greater distances and with less limitation in time and duration of the battles. Command and control improved with the improvement in communication systems and new ships and weapons were developed. In order to illustrate the type of weapons used at that time, Figure 1 shows an example of the Brazilian artillery, commanded by Colonel Mallet, during the Triple Alliance War.

Fig. 1. Brazilian artillery, commanded by Colonel Mallet.

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In the communication area, the novelty was the invention of the telegraph, which substituted the semaphore, created in France in 1794, and employed by Napoleon Bonaparte in a network that included Venice, Amsterdam and Mainz. That communication system permitted the transmission of messages from Paris to Lille (a distance of 270 km) in five minutes.

One of the first military applications of the telegraph, for tactical purposes, took place during the war between Brazil, Argentina, Uruguay and Paraguay, from 1864 to 1870. After a trip to Europe, in order to acquire equipment and hire personnel with expertise in electricity and communications, General Solano Lopez managed to command his troops from his campsite using a telegraph system.

When Brazil declared war against Paraguay, attention was turned exclusively to the south, and a line connecting Rio de Janeiro to the province of Rio Grande do Sul was built in only six months. This paper discusses the first use of electrical communication for military purposes in Latin America from a historical perspective.

II. Previous Conflicts

During the Crimean War, the telegraphic network, already installed in Europe, was improved to allow Napoleon III to strategically intervene in the allied operations. That improvement also permitted William Henry Russell, the most famous war correspondent from The Times, to send reports from the front at that time.

Several new equipments and weapons, developed during the Second Industrial Revolution, were first used, in large scale, during the Crimean War. That was considered the first technological war, and opened the path to the concept of *total war*, according to the seminal theory of the Prussian General and military strategist Karl Von Clausewitz (1780-1831), published in his famous book *On War* [2].

Several technological resources used in the Crimean War were later used in other wars, which succeeded it, including the two major wars that hit the Americas: the American Civil War (1860-1865) and the War of the Triple Alliance against Paraguay, the bloodiest conflict in Latin-American history, fought between Paraguay and the allied countries of Argentina, Brazil, and Uruguay. Figure 2 displays a Brazilian blood hospital in Paso de la Patria, Paraguay.

The exigencies and experiences of the Civil War demonstrated the vast utility and indispensable importance of the electric telegraph both as an administrative agent and as a tactical factor in military operations. In addition to the utilization of existing commercial systems, there were built and operated more than fifteen thousand miles of lines for military purposes only.

The technical work of Bates, Chandler, and Tinker was im-

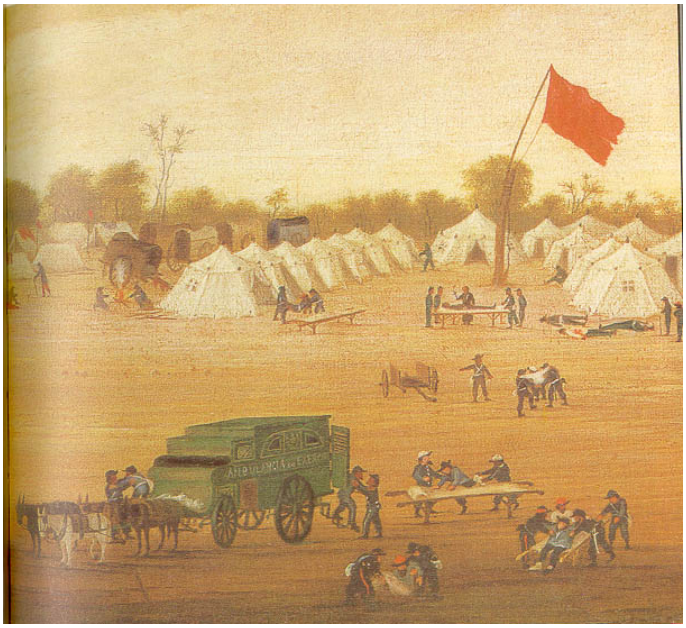

Fig. 2. Brazilian blood hospital in Paso de la Patria, Paraguay.

portant in enciphering and deciphering important messages to and from the great contending armies, which was done by code. Stager devised the first cipher, which was so improved by the cipher-operators that it remained untranslatable by the Confederates to the end of the war. Specially important service was rendered by the cipher-operators of the War Department in translating Confederate cipher messages which fell into Union hands.

A notable incident in the field was the translation of General Joseph E. Johnston's cipher message to Pemberton, captured by Grant before Vicksburg and forwarded to Washington. More important were the two cipher dispatches from the Secretary of War at Richmond, in December, 1863, which led to a cabinet meeting and culminated in the arrest of Confederate conspirators in New York city, and to the capture of contraband shipments of arms and ammunition. Other intercepted and translated ciphers revealed plans of Confederate agents for raiding Northern towns near the border. Most important of all were the cipher messages disclosing the plot for the wholesale incendiarism of leading hotels in New York, which barely failed to succeed on November 25, 1864.

The necessity of efficient field-telegraphs at once impressed military commanders. In the West, Fremont immediately acted, and in August, 1861, ordered the formation of a telegraph battalion of three companies along lines in accordance with modern military practice. Major Myer had already made similar suggestions in Washington, without success. While the commercial companies placed their personnel and material freely at the Government's disposal, they viewed with marked disfavor any military organization, and their recommendations were potent with Secretary of War Cameron. Fremont was ordered to disband his battalion, and a purely civil bureau was substituted, though legal authority and funds were equally lacking. Efforts to transfer quartermaster's funds and property to this bureau were successfully resisted, owing to the manifest illegality of such action.

The military telegraph was absolutely essential to successful operations in the valleys of the Cumberland and of the Tennessee, where very long lines of communication were laid. Apart from train-dispatching, which was absolutely essential to transporting army supplies for hundreds of thousands of men over a single-track railway of several hundred of miles in length, an enormous number of messages for the control and cooperation of separate armies and detached commands were sent over the wires. Skill and patience were necessary for efficient telegraph work, especially when lines were frequently destroyed by Confederate incursions or through hostile inhabitants of the country.

Other than telegraphic espionage, the most dangerous service was the repair of lines, which often was done under fire and more frequently in a guerilla-infested country. Telegraphic duties at military headquarters yielded little in brilliancy and interest compared to those of desperate daring associated with tapping the opponent's wires. At times, offices were seized so quickly as to prevent telegraphic warnings.

Grant used the military telegraph for grand tactics as well as for strategy in its broadest sense. From his headquarters with Meade's army in Virginia, May, 1864, he daily gave orders and received reports regarding the operations of Meade in Virginia, Sherman in Georgia, Sigel in West Virginia, and Butler on the James River. Later he kept under direct control military forces exceeding half a million soldiers, operating over a territory of two million square kilometers in area. Through concerted action and timely movements, Grant prevented the reinforcement of Lee's army and so shortened the war. Sherman said, "The value of the telegraph cannot be exaggerated, as illustrated by the perfect accord of action of the armies of Virginia and Georgia." [3–10].

Under all aspects the American Civil War and the Triple Alliance War were, with no shadow of a doubt, the two greatest conflicts of the Americas, and they marked the evolution of the countries which were involved, mainly because of the use of technological inventions, such as the telegraph. This article explores the use of the telegraph as a tactical and strategic factor in the Triple Alliance War (Paraguayan War).

III. Portrait of a Dictator

Francisco Solano López was born in 1826 and became the second and final ruler of the López dynasty. He had a pampered childhood. His father raised him to inherit his mantle and made him a brigadier general at the age of eighteen. He was an insatiable womanizer, and stories abound of the cruel excesses he resorted to when a woman had the courage to turn him down. His 1853 trip to Europe to buy arms was undoubtedly the most important experience of his life. His stay in Paris proved to be a turning point for him. There, Solano López admired the trappings and pretensions of the French empire of Napoleon III. He fell in love with an Irish woman named Elisa Alicia Lynch, whom he made his mistress. Figure 3 shows a portrait of López.

"La Lynch," as she became known in Paraguay, was a strong-willed, charming, witty, intelligent woman who became a person of enormous influence in Paraguay because of her relationship with Solano López. Lynch's Parisian manners soon made her a trendsetter in the Paraguayan capital, and she made enemies as quickly as she made friends. Lynch bore Solano López five sons, although they never married. She became the largest landowner in Paraguay after Solano López transferred most of

Fig. 3. General Solano López.

the country and portions of Brazil to her during the war, yet she retained practically nothing when the war ended. She buried Solano López with her own hands after the last battle in 1870 and died penniless some years later in Europe.

Solano López consolidated his power after his father's death in 1862 by silencing several hundred critics and would-be reformers through imprisonment. A controlled Paraguayan congress then unanimously elected him president. Yet Solano López would have done well to heed his father's last words to avoid aggressive acts in foreign affairs, especially with Brazil. Solano López' foreign policy vastly underestimated Paraguay's neighbors and overrated Paraguay's potential as a military power.

Observers sharply disagreed about Solano López. George Thompson, an English engineer who worked for the Solano López (he distinguished himself as a Paraguayan officer during the War of the Triple Alliance, and later wrote a book about his experience) had harsh words for his ex-employer and commander, calling him "a monster without parallel." Solano López's conduct laid him open to such charges. In the first place, Solano López's miscalculations and ambitions plunged Paraguay into a war with Argentina, Brazil, and Uruguay.

The war resulted in the deaths of half of Paraguay's population and almost erased the country from the map. During the war, Solano López ordered the executions of his own brothers and had his mother and sisters tortured when he suspected them of opposition. Thousands of others, including Paraguay's bravest soldiers and generals, also went to their deaths before firing squads or were hacked to pieces on Solano López's orders. Others saw Solano López as a paranoid megalomaniac, a man who wanted to be the "Napoleon of South America," willing to reduce his country to ruin and his countrymen to beggars in his vain quest for glory.

In 1954, Francisco Solano López was sent to Europe as plenipotentiary minister to buy weapons and establish commercial contacts. In England, Solano López contacted Blth & Co., one of the more advanced companies at the time. Through that company, Paraguay began to import weaponry and train young soldiers. The company also recruited 250 European technicians, between 1850 and 1870 – including 200 British – to modernize the country. William K. Whitehead became Chief-Engineer of the Paraguayan State, William Stewart became Chief-Surgeon and George Thompson was named Chief-Engineer of the Army.

IV. The Conflict

The war can be divided into four phases. The first phase includes the Paraguayan offensive, the naval battle of Riachuelo and ends when Uruguaiana was re-taken. The second one is characterized by the counter-offensive of the allies. In the third phase occurs the takeover of Humaitá and concludes with the conquest of Asunción, the capital. The Campaign of the Cordilheira was the fourth and last phase of the conflict.

Paraguay had been involved in boundary and tariff disputes with its more powerful neighbors, Argentina and Brazil, for years. The Uruguayans had also struggled to achieve and maintain their independence from those same powers, especially from Argentina.

In 1864 Brazil helped the leader of Uruguay's Colorado Party to oust his Blanco Party opponent, whereupon the dictator of Paraguay, Francisco Solano López, believing that the regional balance of power was threatened, went to war against Brazil. Bartolomé Mitre, president of Argentina, then organized an alliance with Brazil and Colorado-controlled Uruguay (the Triple Alliance), and together they declared war on Paraguay on May 1, 1865. Figure 4 shows Bartolomé Mitre, President of Argentina.

López' action, following his buildup of a 70,000-man army, then the strongest in Latin America, was viewed by many as aggression for self- and national aggrandizement; but, as the war wore on, many Argentinians and others saw the conflict as Mitre's war of conquest.

At the opening of the war, in 1865, Paraguayan forces advanced northward into the Brazilian province of Mato Grosso and southward into the province of Rio Grande do Sul. Logistical problems and the buildup of the allied troop strength, which soon outnumbered Paraguay's by 10 to 1, then forced the Paraguayans to withdraw behind their frontiers. Figure 5 shows a map, which illustrates the invasion of Mato Grosso by the Paraguayan forces.

Figure 6 shows Fort Coimbra, the first fortification attacked and taken by the Paraguayan Army during the invasion of Mato Grosso. Figure 7 shows a recent picture of the same fort.

In June 1865 Brazilian naval forces defeated a Paraguayan flotilla on the Paraná River at Riachuelo, near the Argentina city of Corrientes. By January 1866 the allies had blockaded the rivers leading to Paraguay. In April Mitre led an allied invading

Fig. 4. Bartolomé Mitre, President of Argentina.

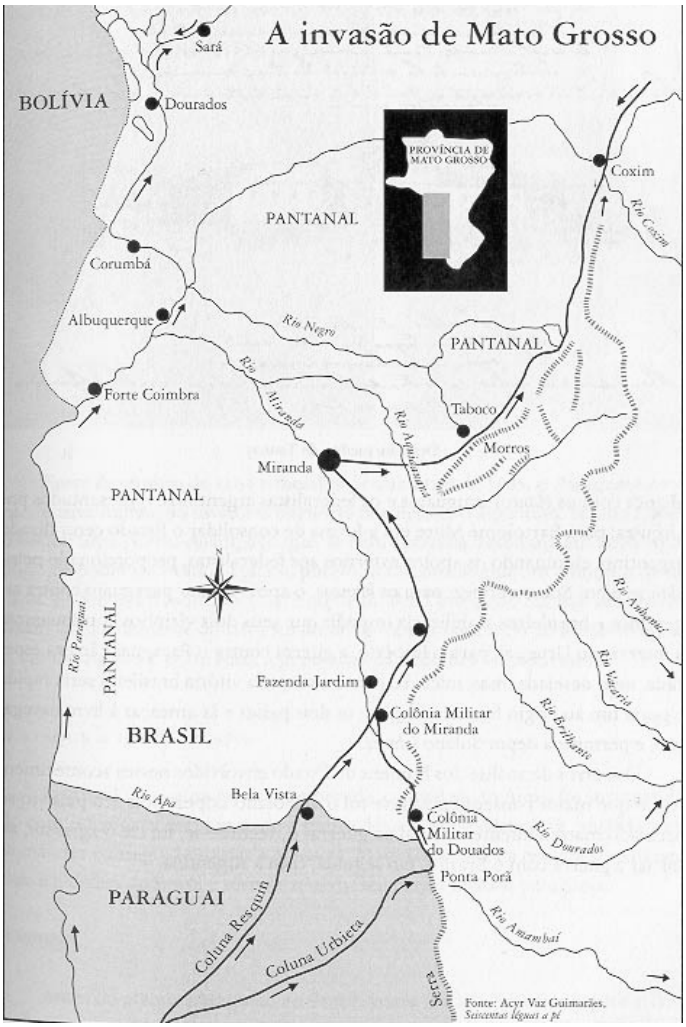

Fig. 5. Invasion of Mato Grosso by the Paraguayan forces.

force into southwestern Paraguay but was prevented from advancing for two years. Fierce battles were fought. The most notable, won by the Paraguayans at Curupayty in September 1866, inhibited any allied offensive for nearly a year. Both sides suffered heavy losses in the campaign. Figure 8 displays the assault of the 3rd Column of the Argentinian Army at Curupayty.

In January 1868 Mitre was replaced as commander in chief by the Brazilian Luís Alves de Lima e Silva, Marquis (later Duke) of Caxias, which is shown in Figure 9. In February Brazilian armored vessels broke through Paraguayan defenses at the river fortress of Humaitá, near the merging of the Paraná and Paraguay rivers, and pressed on to bombard Asunción, the capital. In the Campaign of Lomas Valentinas in December, the Paraguayan army was annihilated. López fled northward and carried on a guerrilla war until he was killed on March 1, 1870.

The Paraguayan people had been fanatically committed to López and the war effort, and as a result they fought to the point of dissolution. The war left Paraguay devastated. Its prewar population of approximately 525,000 was reduced to about 221,000 in 1871, of which only about 28,000 were men. During the war the Paraguayans suffered not only from the enemy but also from malnutrition, disease (cholera), and the domination of López, who tortured and killed countless numbers. Figure 10 displays the attack of the Brazilian Navy at Curupayty.

Argentina and Brazil annexed about 140,000 square kilometers of Paraguayan territory: Argentina took much of the Misiones region and part of the Chaco between the Bermejo and Pilcomayo rivers; Brazil enlarged its Mato Grosso province from annexed territory. They both demanded a large indemnity (which was never paid) and occupied Paraguay until 1876. Meanwhile, the Colorados had gained control of Uruguay, and they retained that control until 1958. The war opened the way for a development of constitutional government in Paraguay.

V. Use of the Telegraph during the War of the Triple Alliance versus Paraguay

The telegraph was invented in 1844 by Samuel Morse, eight years later, at the end of the XIX th century it became a powerful instrument of national integration, in Brazil, when Cândido Mariano da Silva Rondon, patron of Communications in Brazil, personally issued, from 1892 to 1912, the installation of over six thousand kilometers of telegraphic lines, integrating the country's capital, Rio de Janeiro, to the Amazon.

Brazil was one of the first countries in the world to use electricity. The first practical experiences in the country were contemporary to the initial applications of that new form of energy in the United States and Europe. The several improvements and new applications of electricity that appeared throughout the world were promptly tested in Brazil. A large share of that pioneering work was due to the Emperor's own intervention.

In 1851, the Minister of Justice, Eusébio de Queiroz Mattoso,

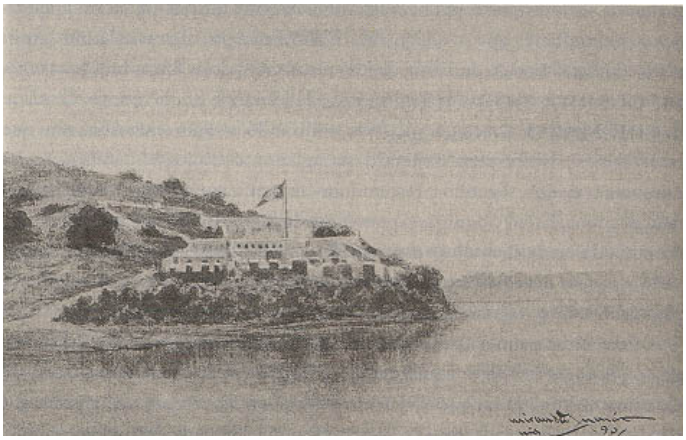

Fig. 6. Fort Coimbra, the first fortification attacked and taken by the Paraguayans during the invasion of Mato Grosso.

Fig. 7. A recent picture of Fort Coimbra.

author of a Law which blocked the slave traffic in Brazil, concerned about how to build a fast link to obtain information on the download of slaves, asked Dr. Paula Cândido, professor of Physics from the College of Medicine of Rio de Janeiro, to construct a telegraph line. An experimental line was constructed, using copper wire involved with silk and resin. The lower part of glass bottles were used as isolators, because no adequate material was found in Rio de Janeiro at that time. The experiment was not successful, due to the lack of transmitters and receivers. After that, Colonel Polydoro Quintanilha Jordão (the future Viscount of Santa Tereza) tried, also with no success, to transmit between the Police Headquarters (on Evaristo da Veiga street) and Morro do Castelo (Castle Mount), using Bréguet devices, which were taken from the Physics Department of the College of Engineering (then Military School), offered by Professor Guilherme Schuch de Capanema, the future Baron of Capanema.

A few days later, Professor Capanema and Cel. Polydoro were able to realize the first transmission between two rooms, located far apart, at the Military School, and they became, as noted Cel. Raul de Albuquerque, "the first telegraphers in Brazil". Because of that result, the Minister asked Professor Capanema to build the first telegraphic line in Brasil.

In the same year, Professor Capanema occupied the position of Director of the Brazilian Telegraph, which he held for almost forty years, until the end of the Empire. Professor Capanema

Fig. 8. Assault of the 3rd Column of the Argentinian Army at Curupayty.

was always a pioneer, and under his guidance the Brazilian Telegraph remained as one of the leading offices in the world.

The first Brazilian telegraphic line was inaugurated in May 11, 1852. The line was underground and had an extension of 4,300 meters, between the Emperor's Palace of Quinta da Boa Vista and the Army General Headquarters, located in Campo de Santana (Santana Grounds), in Rio de Janeiro. The line was constructed under the direct supervision of Professor Capanema, with a great help from the students of the Military School, which became the first official telegraphers. The inmates of the House of Detention were also used in the construction.

In 1854, an order from the Minister of Justice instructed the construction of another telegraphic line, to link the City and Boa Vista Official Buildings, the Navy and War Arsenals, the Police Headquarters and the Petropolis Palace, in the mountains of the Rio de Janeiro State. The newspaper *Correio Mercantil*, dated February 18, 1854, published that "the telegraph line between the Secretary of Justice and the Police Headquarters entered into service yesterday" and that "students from the military school worked on it, proving that we have no need for foreign engineers." The line to Petrópolis was only concluded in January of 1857; it measured 50,600 meters, of which 15,000 meters were of submarine cables, and the aerial portion consisted of galvanized iron wires.

Little by little the telegraphic lines continued to extend. With the appearance of the railroads, the telegraphic net also increased, because the ministerial acknowledgment of June 6th of 1872 compelled all the concessionaires to construct and maintain telegraphic lines parallel to the roads.

As part of the effort of preparation for the war, Paraguay promoted one of the first military applications of the telegraph, for tactical intentions, during the war against Brazil, from 1864 to

Fig. 9. General Caxias.

Fig. 10. Attack of the Brazilian Navy at Curupayty.

1870. With the support of technicians from Germany, General Solano Lopez managed to control the movements of his troops from his encampment. This gave Paraguay a certain initial competitive advantage, partly due to the work of the Director of the Telegraphs, Herr von Fischer Treuenfeld, nominated by Lopez [11].

The Brazilian Empire had also invested in telegraphy for military purposes. In 1863, as consequence of the Christie Question, the submarine lines for the Fortalezas of Santa Cruz and Villegaignon were launched in Brazil and, in 1864, a line to Cabo Frio, to inform of the arrival of ships. In 1865 since the beginning of the Triple Alliance War it was essential to improve communications with the South of the Country. Engineer Capanema himself directed the construction of a telegraphic line to Porto Alegre. Also several other lines had been constructed in Rio Grande do Sul, at the headquarters in Argentina and Paraguay [12] [13].

The first telegraphic devices were complicated and were manufactured by Bréguet, they operated with Leclanché batteries. Simple devices, for Morse code, had only been introduced in 1867, when Brazil joined the international convention of Saint Petersburg. Since 1865, the General Distribution of the Telegraphs had a workshop where telegraphic devices and other equipment were repaired and manufactured.

In Brazil, since January of 1857, year when the telegraphic station that linked Petrópolis was inaugurated, the expansion of communications was guided northward of the Country. However, as the war against Paraguay was declared it became a necessity to make a change in orientation [14]. The attention turned exclusively toward the south, and the line that linked Rio de Janeiro to the province of the Rio Grande do Sul, passing through Saints, Paranaguá, San Francisco, Itajaí, Deportation, Lagoon, Porto Alegre, Pellets, River Great and other less important localities of the coast had been constructed in only six months [15]. Due to the rapidity of the work, many defects had occurred, that were later corrected little by little [16]. In the end of the 1860´s, there was a telegraphic line extending to the south of the country.

Curitiba was connected to the general network in October 30th, 1871, from a branch that came from Morretes. In October of 1872 the Jaguarão station was inaugurated, from which later on were established communications with the Uruguayan lines due to an agreement celebrated in Montevidéu in August 9th of 1879 between the Brazilian Minister and Santiago Bottini, entrepreneur of a telegraphic line in the Eastern Republic (Uruguay), who had received permission to extend it to the neighboring areas of the Brazilian line of Jaguarão for 10 years due to decree number 5,895, of April 3rd, 1875.

The company Siemens & Halske was funded in 1847, to make and sell telegraphic equipment. The company came to Brazil in 1867, when it fabricated and installed, in only six months, the first long haul telegraphic line, between the Emperor D. Pedro II residence, in Rio de Janeiro, and the Province of São Pedro, in the State of Rio Grande do Sul. A portrait of D. Pedro II is shown in Figure 11. The electromagnetic devices, that used Siemens displays and mechanical driving, were employed in the battlefield, during the Paraguayan campaign. Since 1866, experiments were conducted with Double-Morses, which became quite common at the time [17].

After the war, the telegraphic system continued to improve, reaching Bahia, in 1874, Paraíba, in 1875, Rio Grande do Norte, in 1876, Ceará, in 1881, Piauí, Maranhão, Ouro Preto e Diamantina, in 1884, and Pará, in 1886, covering, then, the whole Atlantic border of the Country, and including several branches to the countryside. The first international terrestrial line was installed in 1879, linking Uruguay, and, in 1883, a line was deployed to link Argentina. The first international submarine cable was inaugurated in June, 1974, to Europe, through Lisbon. The first telegram was dispatched from the Emperor to his nephew, D. Luis, King of Portugal. The cable was financed by Irineu Evangelista de Sousa, Baron, and later, Viscount of Mauá.

VI. Consequences of the War

The war ended three centuries of conflicts, inherited from the past disputes of Portugal and Spain. Despite the revisionist ideas, published by some authors in the past century, which pointed England as the major interested in the war and López as the incarnation of the Latin-American nationalist, it is well recognized today that this theory is completely wrong and has several historic errors. The war was provoked by López, which wanted to create a Major-Paraguay, annexing Brazilian, Argentinian and Uruguayan territories, to gain a path to the Atlantic

Fig. 11. D. Pedro II, Emperor of Brazil.

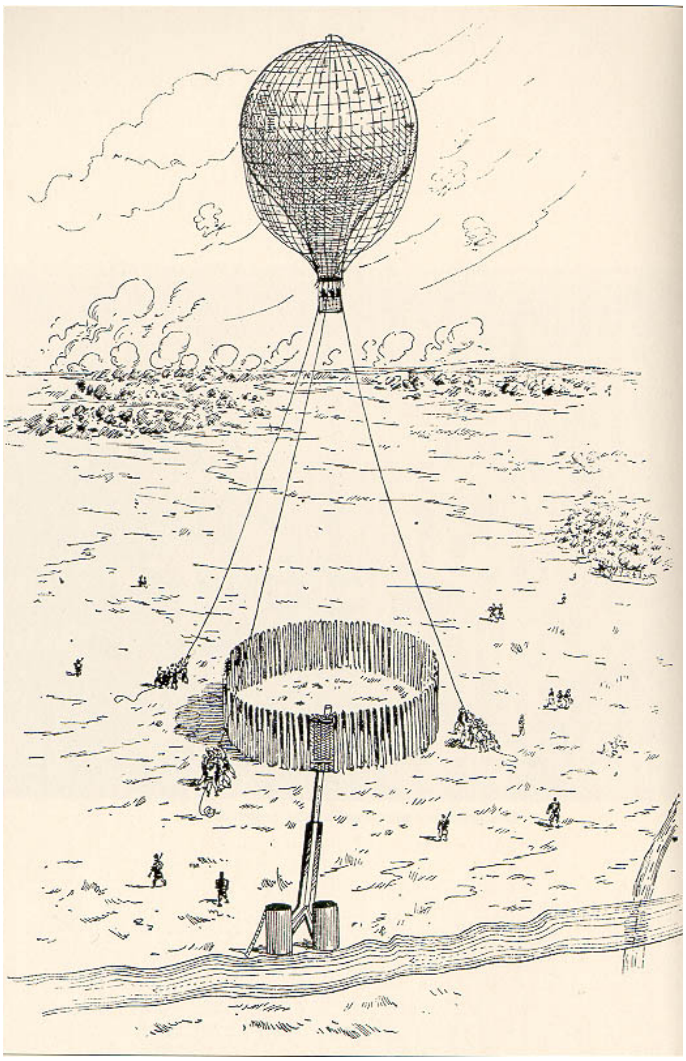

Fig. 12. Air balloon used to recognize the terrain in Tuiuti.

Ocean [9].

At the beginning of the war, Brazil had only 18 thousand troops, spread throughout the Country and Paraguay had 70 thousand men in arms, some of them well prepared by foreign experts [18, 19]. But, the Brazilian Army was very professional and had a tradition and accumulated experience from previous conflicts. Several Brazilian officers had been instructors for the Paraguayan Army and also military Engineers, who constructed part of the Paraguayan fortifications, including Humaitá.

The Triple Alliance War was a modern conflict, transitional between the Napoleonic Era and the First World War, and compared to the American Civil War in the usage of technology. Combined operations, between the Navy and the Army were planned, which anticipated the amphibious operations of the Second World War. Air balloons were used to recognize the terrain in Tuiuti, which covered the lack of detailed maps of the region, as depicted in Figure 12.

Engineering was used also to construct roads, bridges and to transpose natural obstacles. The press was used by the parts to spread information and indoctrination. On the Brazilian side, the Army Mobile Typography published a newspaper called *A Saudade*. The Paraguayan troops received the newspaper *El Semanário*, official paper of the Paraguayan government, and also edited the newspapers: *El Centinela*, *Cacique Lambaré* and *Cabichui*, which started a campaign against the allied enemies, particularly the Brazilians. The war also improved the Brazilian capacity to construct large vessels.

VII. Conclusions

The war ended López tyranny, but left Paraguay completely devastated and claimed a large portion of its population. On the other hand, the borders between Brazil, Argentina and Paraguay were finally defined and the question of navigation along the Paraguay River was solved.

Among the allied countries, Argentina obtained larger economic advantages and, aside from that, the country solved its border problems and took over the Martin Garcia Island.

Even though Uruguay played a major role to ignite the war, its losses were minor in terms of personnel and equipment. After the war, the country kept its independence and remained as a buffer state between Brazil and Argentina.

Brazil solved its border problems with Paraguay and the navigation problem on the rivers of the Prata Basin, specially the Paraguay River, improved its foreign policy, not allowing the reconstruction of the Vice-Kingdom of the Prata, and gave more attention to connections to the State of Mato Grosso, ensuring

the free navigation of the new steam boats along the Paraguay River. The armed forces acquired considerable prestige because of the victory and the battles and heroes that emerged from the war now name several army and navy related organizations. The truth is, although, that Brazil suffered larger losses, in personnel and equipment, than the other allies.

VIII. Acknowledgments

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Appendix

I. Telegrams Dispatched During the War

The Cordilheira campaign was documented by Taunay, who was in charge of writing the Army Diary. In the following some passages, which shed light on the importance of the telegraph for the war, are presented. Figure 13 displays the Viscount of Taunay and military Engineers, responsible for the construction of telegraphic lines, roads and bridges during the war [12] [13].

Fig. 13. Viscount of Taunay and military Engineers.

Friday, April 16, 1869

O Comandante da praça de Assunção enviou um telegrama ao quartel -general comunicando achar-se pronto para seguir para o Rosário o vapor Paysandu, que leva um oficial, alguns praças, um resto de cavalhada e, a reboque, um navio carregado de alfafa. Teve ordem para zarpar, devendo tomar a bordo o engenheiro polaco Tenente-Coronel Chodasiewic, encarregado de ir fortificar a posição e fazer um relatório sobre suas condições de defesa.

Sunday, 18

O Ajudante-de-Ordens Salgado foi também àquela cidade para tratar de regularizar a linha de correios com a capital de Mato Grosso e dar ordem ao vapor Alice a fim de que descesse a buscar material em Humaitá.

Monday, 19

Outro telegrama anuncia ter ontem entrado no Rio Manduvira a expedição que vai em perseguição dos vapores inimigos ocultos nas voltas daquele rio depois da ocupação de Assunção pelos aliados. Compõe-se ela dos monitores Ceará, Piauhy, Santa Catharina, das lanchas a vapor João das Botas, Jansen Muller e Couto, aos quais posteriormente deverá reunir-se a vapor Voluntário da Pátria, depois de uma viagem ao Cerrito.

Friday, 23

De Assunção mandaram diversos telegramas, anunciando: um a chegada de duas peças Withwort de calibre 2 que serão enviadas com a possível brevidade; outro a vinda do chefe Elisiário do Alto Paraná, e um terceiro a partida dos ajudantes-de-ordens, Capitão-de Fragatas Salgado e Tenente-Coronel Luiz Alves, que seguem para Buenos Aires a ativarem o mais possível a remessa de cavalos, sobre a qual tanto se tem instado.

Sunday, 25

Da vanguarda, recebeu o quartel-general um telegrama participando que, na exploração da manhã até Patino-cuê haviam-se adiantado algum tempo imprudentemente do grosso da cavalaria doze homens comandados pelo Capitão Fonseca Ramos, os quais, envolvidos logo por infantaria inimiga, tiveram que abrir caminho a espada, perdendo quatro homens e quatro cavalos, e ficando ferido aquele oficial e um soldado mais.

Saturday, May 1, 1869

Por telegrama de Assunção, recebeu Sua Alteza notícia de ter descido a expedição do Manduvirá. O inimigo em número superior a 1.000 homens tentará cortar a retirada dos navios com correntes, torpedos, vigas e trincheiras artilhadas. Ficaram prisioneiros dois oficiais paraguaios, um dos quais ajudante-de-ordens, e alguns soldados, além da perda que parece entre eles ter sido considerável. Do lado brasileiro houve alguns feridos e tão-somente um morto.

Sunday, 2

De Assunção anunciou-se a chegada do vapor Annicota, que conduz de Humaitá 1.000 praças saídas do hospital e trem bélico, assim como a do Presidente, que trás de Buenos Aires uma locomotiva, seis vagões e fios elétricos para o telégrafo.

Friday, 7

A telegrafia tem prestado excelentes serviços e trabalha incessantemente, sendo raros os desarranjos nas máquinas eletromagnéticas ou na linha de fios que a atividade do oficial engen-

heiro imediatamente dispõe utilizando-se dos postes deixados pelos paraguaios no seguimento da estrada de ferro.

Quinta-feira, 13

Retiraram-se as recomendações precisas para a cessação das irregularidades que existem no movimento postal para Cuiabá, devendo os vapores que vão ao Fecho dos morros receber aí a mala da capital da província e de Corumbá.

Saturday, 15

O comandante de Assunção, em telegrama, anunciou que na altura de S. Lourenço fora uma ponta de gado de João Apollinário, vinda do Passo da Pátria e destinada à Esquadra, atacada por um bando armado ou inimigo ou formado de desertores, o qual, entretanto, viu-se frustrado em seus intentos pela resolução do capataz e de sua gente.

Monday, 17

De Assunção vem parte de haver-se dado principio aos trabalhos de fortificação que Sua Alteza determinara, fazendo-se em diversas ruas, tranqueiras com plataformas para artilharia num perímetro que compreende os depósitos, ficando porém fora dele o hospital e a estação da estrada de ferro que hão de ser defendidos por obras acessórias. As trincheiras abertas de princípio e não revestidas tinham-se abatido depois de forte temporal acompanhado de chuva de 13, de modo que encetaram-se outras feitas com mais regularidade e cuidado.

O Chefe do Estado-Maior da Esquadra comunica, relativamente ao embarque da expedição destinada ao Rosário que os vapores, transportes e chatas carregaram a cavalaria; o Silvado, a Infantaria, e o Henrique Martins, a Artilharia, devendo ficar tudo à bordo hoje de tarde, para que parta amanhã ao alvorecer.

À noite, um telegrama de Assunção transmitiu, a pedido do General Castro, a notícia de que o Tenente Coronel Coronado, à frente de 80 homens, dirigira-se ao estabelecimento de fundição de ferro em Ibicuy, onde chegara com felicidade, fazendo aí cento e tantos prisioneiros, resgatara oitenta e tantos homens de diversas nacionalidades, e trouxeram para cima de cem mulheres e crianças. Anuncia ele, porém, que forças maiores vêm ao seu encalço, obrigando-o a pedir reforço, ao qual, na verdade, foi-lhe dado pelo Batalhão oriental número 24 e 80 homens nossos de cavalaria, que logo seguiram ao seu encontro para ao lados de Santo Antonio, saindo também de Luque a brigada comandada pelo Coronel M. de Oliveira Bueno.

Wednesday, 27

Os fios telegráficos foram tirados: entretanto quase todos os postes haviam ficado, de modo que com brevidade foi pelo hábil engenheiro Álvaro Joaquim de Oliveira corrida nova linha, estabelecendo-se a imediata comunicação com a cidade de Assunção.

Wednesday, June 2, 1869

Chegou a Pirayu um telegrama da Esquadra, o qual anuncia os felizes resultados da expedição do General Câmara: Galeano derrotado, 16 bocas-de-fogo tomadas, os paraguaios dispersos depois da perda de 500 homens e o aprisionamento de 300 outros. Esta notícia enche de júbilo o nosso acampamento, vindo as músicas tocar à porta de Sua Alteza, que recebeu os cumprimentos de toda a oficialidade.

Thursday, 3

De Assunção receberam-se telegramas comunicando haver desembarcado naquele dia o Sr. Visconde do Herval e ter chegado de Humaitá o vapor Itapicuru, trazendo a bordo quatro companhias desmontadas do Corpo 12 de Cavalaria, muita munição e duzentos animais muares. Confirmado ficou o telegrama da véspera: mais de 500 paraguaios foram mortos, 300 aprisionados, 3 bandeiras e a artilharia todas tomadas, muitas famílias libertadas do jugo de Galeano e duas mil cabeças de gado arrebanhadas.

Friday, 4

De Assunção comunica-se haver chegado do Alto Paraná o vapor Payssandú trazendo 120 cavalos, caixões de granadas pertencentes à Bateria de Artilharia e 145 cunhetes a cargo do 12o Batalhão de Infantaria. Daquela cidade vem também a notícia de haver o Brigadeiro Portinho transposto, no dia 24 do mês próximo passado, o Rio Paraná, notícia que o vapor Íris vinha trazendo do Cerrito e que, por ter encalhado aquele navio, chegou a Assunção por meio de estafetas.

Tuesday, 8

Um telegrama de Assunção comunica ter-se descoberto um importantíssimo estrago feito na grande ponte do Ibiray entre a Trindade e aquela cidade: consta de seis esteios cerrados transversalmente, alguns completamente, outros em parte; esteios de comprimento considerável que repousam em pegões de alvenaria. Apesar da importância dos cortes, o trem de ferro passou quatro ou cinco vezes por cima da ponte sem que se desse sinistro algum.

Wednesday, 9

Sua Alteza, considerando a possibilidade de ser a coluna do General Portinho ajudada em suas operações por alguns encouraçados, ordenou ao Chefe-de-Esquadra que mandasse explorar o Rio Tebicuary o mais longe possível, recebendo por telegrama daquele chefe participação de que tal ordem fora logo dada a navios ancorados no Cerrito, por isso que no porto de Assunção não existe nenhum em disponibilidade, estando todos os pequenos empregados no transporte da expedição do Jejuy.

Tuesday, 29

Depois de ouvir missa às 7 1/2 horas da manhã, visitar a guarda do Exército e tomar diversas providências com o Comandante de Assunção, embarcou Sua Alteza no trem de ferro às 8 1/2 horas, e, sem parar em ponto algum mais do que para tomar-se água em Juquery e em Areguá, foi, em 2 horas, até o Taquaral, donde, depois de demora de 1/2 hora, chegou a Pirayu pouco depois de meio-dia. Em viagem foi recebido um telegrama anunciando ter passado de Ascurra um paraguaio que se apresenta com 5 mulheres e algumas crianças, formando sua família, a qual com ele combinara fuga, empreendendo-a de outro ponto.

Wednesday, 30

Às 8 horas da noite veio, com efeito, daquele ponto, um telegrama anunciando que se apresentara às linha argentinas e depois às brasileiras o Ministro dos Estados Unidos, General Mac-Mahon, e que ele pedia permissão para vir falar com Sua Alteza. Foi-lhe feita essa concessão e às 9 horas era ele recebido, em presença de muitas pessoas do Estado-Maior, no Quartel-General de Pirayu.

Tuesday, July 6, 1869

Um telegrama anunciou a Sua Alteza que à tardezinha embarcara no vapor Eduardo Eweret o General Mac Mahon, tendo tido ordem a corveta Belmonte para seguir aquele vapor até o Cerrito. As irregularidades que o diplomata americano praticara em Assunção iam provocar qualquer medida, por isso não pouca satisfação causou a sua retirada. O dinheiro que ele levava na bagagem foi convertido em letras, passadas por Lesica, Lanus e Molina e montava no valar de 25.000 patacões.

Wednesday, 21

O Capitão-de-Fragata Salgado telegrafa que Lanus lhe assegurava deverem hoje entrar no acampamento de Pirayu 350 reses, não tendo ido mais por causa de novos desarranjos em vapores. Diz mais que existem no fecho dos morros mantimentos para mais dois meses e que por isso cessava por enquanto suas remessas. É certo que as faltas no fornecimento têm se multiplicado e empecido completamente as determinações as mais insignificantes sobre deslocações de frações de força.

Thursday, 22

O Conselheiro Paranhos declara em telegrama ter ficado ciente dos embaraços com que lutava o Exército por causa da escassez de víveres e que tratava de dar a isto pronto remédio. Esses embaraços têm subido a tal ponto que a carne verde, durante dias seguidos, não tem sido fornecida, impossibilitando os desarranjos contínuos de vapores e locomotivas e a distribuição regular dos outros mantimentos. As reses de Angustura chegam sempre muito magras e cansadas, e o Capitão-de-Fragata Salgado teve ordem de ir até lá, a fim de verificar o número que contém o depósito.

Sunday, 25

Não cessando o quase estado de crise no fornecimento de víveres, Sua Alteza por telegrama exigiu que de Assunção fossem os mantimentos mandados em costas de animais, para livrar a remessa regular dos desmanchos contínuos nos trens de ferro. A resposta de que os caminhos entre aquela cidade e Pirayu achavam-se péssimos e que era considerada a distância, nada mais representa do que pretextos com que os fornecedores tentam encobrir a sua falta de meios de locomoção, não estando ainda com o número de bestas precisas para os próximos movimentos. Ordens enérgicas foram expedidas.

Wednesday, 28

O Chefe de Estado-Maior do Exército, que fez nova viagem a Assunção para ir cuidar em negócios de cavalhada, mandou um telegrama pelo qual diz ter recebido, dos animais vindos ultimamente, 150 que estavam em boas condições.

Saturday, August 7, 1869

Em seguida, uma partida forte de cavalaria dirigiu-se ao povoado de Itacuruby que achou ocupado por numerosa gente. Ali havia uma estação telegráfica e uma estância da mãe de Lopez, em cuja casa estavam acumulados imensos tesouros de prata maciça pertencente aos despojos de todas as igrejas do Paraguai, a dificuldade de transportar aquele depósito fez com que fosse entregue à repartição fiscal tão-somente a porção que os soldados puderam vir conduzindo até Valenzuela.

Thursday, 12

Todas as casas continham móveis, caixas, livros etc.; havia uma estação telegráfica e uma tipografia.

Thursday, 26

O fornecimento ainda chega escasso em Caraguaty. Pelo telégrafo, que já vem até Caacupê, reiteram-se as ordens para que sejam despachados carros com víveres uns atrás dos outros.

Wednesday, October 13, 1869

Ao General Polydoro oficiou Sua Alteza que, pelo fato da ocupação de Santo Estanisláo, tornava-se desnecessário a presença de tropas entre Caraguatay e Assunção, convido que se dirijam à margem do Paraguai as forças do 2^0 Corpo de Exército, o 2^0 Regimento de Cavalaria, presentemente em Nhuguaçu, o 16^0 de Cavalaria em Cerro Leon, o 17^0 de Infantaria existente em Ascurra e o 1^0 de Artilharia que guarnecia Pirayu e que se retirara, efetuada a remoção de todas as bocas-de-fogo tomadas em agosto. Para Angustura poderão ir essas forças, a fim de não acumular em Assunção mais gente, quando é de necessidade e desde já removendo a que lá se acha, podendo também ser encaminhadas para Humaitá ou outro qualquer ponto julgado conveniente. A linha telegráfica de Assunção a Caraguatay será desmanchada e o seu material transportado para o Rosário para novamente ser estendida em direção a Santo Estanisláo.

Sexta-feira, 24 de Dezembro de 1869

Da estação telegráfica de Ihu, a três léguas de Santani, foi remetido o seguinte telegrama do Marechal Victorino. O Capitão de Cavalaria Orlando, que mandei até o Rio Jejuy, foi a Vila de São Pedro e de lá trouxe 42 paraguaios que se apresentaram e mais o italiano de nome Abrahão Sertorio, cujo depoimento será brevemente enviado para Curuguaty.

Ao Comandante-em-Chefe interino da Esquadra que, a 15 do corrente, comunicara haver assumido o Comando interino da Esquadra pela retirada do Chefe-de-Esquadra Elisiário Antônio dos Santos, declarou Sua Alteza que devem ser mensalmente remetidas as notas dos vapores fretados pelo Estado, com especificação do destino em que cada um deles se acha. As explorações da barra do Rio Jejuy serão semanalmente repetidas até conseguir-se a subida de lanchas a vapor até a Vila São Pedro.

Tuesday, January 11, 1870

De manhã, Sua Alteza deixou Santani: parou junto ao Arrojo Ihu, a duas léguas e três quartos do povoado, para examinar a estação telegráfica e foi acampar além da Estância Carolina,

completando quase seis léguas. Os caminhos, embora encharcados das chuvas passadas, mostram os trabalhos feitos pelo ativo engenheiro Capitão Antônio de Sena Madureira, encarregado do melhoramento da estrada compreendida entre Santo Estanislau e a Vila do Rosário. (p.256)

Wednesday, 12

Às 11 horas do dia entrou Sua Alteza na Vila de Itacurubi, a quatro léguas do pouso e aí foi recebido pelo Comandante do Batalhão número 9 de Infantaria Major Floriano Vieira Peixoto e sua oficialidade, indo parar na estação central telegráfica, cuja linha toda está entregue aos zelosos cuidados do engenheiro Capitão Catão. Depois de alguma demora, foi o príncipe acampar no fim do campo ocioso, a légua e meia de Itacurubi.

Wednesday, February 2, 1870

Ao Comandante da Esquadra oficiou Sua Alteza, declarando que tem de embarcar com toda a brevidade nos vapores Galgo, São José e Cuiabá uma brigada composta dos batalhões de Voluntários números 17, 40 e 53, achando-se os dois últimos na Vila do Rosário e o primeiro em Humaitá. Do comandante desta brigada deverão receber ordens os comandantes de vapores, que pararão em Santa Catarina para, pelo telégrafo, pedirem-se as ordens do Governo.

Wednesday, March 2, 1870

O General José Auto da Silva Guimarães participa por telegrama que amanha deve ele chegar, com a força de Curuguati, à Vila do Rosário.

Sua Alteza, por esta circunstância, adiou a viagem que, por necessidade de saúde, pretende fazer pelo rio até a Vila da Conceição.

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