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TRACE OF OIL:

THE SEARCH FOR THE INITIATING FACTOR OF THE CHACO WAR

by

Geoffrey D. LaCasse

B.A. (Honours), Simon Fraser University, 1986

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

in the Department
of
History

Geoffrey D. LaCasse 1987

SIMON FRASER UNIVERSITY
August, 1987

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Name: Geoffrey David LaCasse

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Examinimg Committee:

Chairman: Dr. I. Little

Dr. R. Newton, Senior Supervisor

Dr. R. Boyer, Supervisory Committee

Dr. M. Kitchen, Supervisory Committee

Dr. J. P. Harrison, External Examiner
Professor Emeritus
University of Miami

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ABSTRACT

The Chaco War, Bolivia versus Paraguay, 1932-1935, ultimately occurred because of decisions taken by President Daniel Salamanca in 1931-32. However, the initial factor responsible for this war has never been clearly defined. The war is little known outside the two combatant nations; its literature lacks critical historical analysis.

The fragmentary nature of primary source material plus the clutter of jingoistic phrases and haphazard research in the literature that is available has caused me to take a dual analytical approach in this thesis. In the first half of the thesis I examine and eliminate previously formulated theories on the origins of the war; in the second half I postulate that the discovery and subsequent exploitation of oil in Bolivian lands bordering the Chaco Boreal was the initiator of the events which led to the Chaco War. Commercial deposits of oil were first discovered in Bolivia in 1898, but the larger 1906 finds constituted the first serious Bolivian national interest in oil. Subsequently, in an effort to find additional oil fields, Bolivia began to encroach upon Chaco lands controlled by Paraguay.

This conclusion is tentative; it needs additional research before it can be said to be wholly convincing. But the available evidence supports no other known theory to the same extent.
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CHAPTER I

INTRODUCTION

The Chaco War, 1932-35, was fought between Bolivia and Paraguay (Map 1), after a long and futile period of diplomatic negotiations. Elsewhere, the war is a nearly forgotten incident (except for the decade of fighting, 1927-35)—in part, because Bolivia and Paraguay are two of the least known countries in the world. Chapter II presents the background to the war.

The reasons for the outbreak of full-scale war between Bolivia and Paraguay in 1932 have never been addressed satisfactorily in the literature. Historians have postulated nine primary theories. These are: The War of the Pacific; Bolivia's Search for an Alternative Port; Military Postures; the 'Merchants of Death'; The 1929 Depression; President Daniel Salamanca of Bolivia; Foreign Imperialism; Argentine Links to Paraguay; and The Exploitation of Oil Fields Along the Periphery of the Chaco. After 1920. Chapter III analyzes and discards as unsatisfactory the first eight theories. The ninth is discussed (and discarded) separately, in Chapter IV.
The discussion of previous theories is important to this thesis because the Chaco War literature is cluttered with works which incorporate at least one of the nine theories named above. Few of the theories have substantial supporting evidence; nevertheless, they are quoted at great length by historians.

Chapter IV incorporates the results of my analysis, supplemented by additional research into the early period of the Bolivia-Paraguay Chaco dispute. I conclude it by postulating a circumstantial case that the Chaco War occurred as a result of Bolivian assertion of its national interests in oil before 1920—a factor rarely given consideration previously.

In this thesis I have utilized official documentation from Bolivia and Paraguay, League of Nations material, and—in decreasing proportion—works by historians from Bolivia, Paraguay, the United States, Great Britain, France, and the U.S.S.R.

In this paper, the term "Chaco Dispute" will be defined as the period leading up to the outbreak of full-scale war in 1932. The term "Chaco War" will denote hostilities from 1932 to 1935.
CHAPTER II

BACKGROUND TO CONFLICT:

GEOGRAPHY AND HISTORY

Geography: The Chaco Boreal, Paraguay, Bolivia

The zone disputed by Bolivia and Paraguay comprises most of the area of the Chaco Boreal (Map 2), an area which, in turn, gave its name to the war which would be fought between the two nations.

The Chaco Boreal (hereafter the Chaco) is the northern sector of the Gran Chaco, a geographical region which stretches from the Brazilian-Bolivian border in the north to Argentina in the south. The Chaco Boreal has an area of approximately 300,000 square kilometres, and is shaped like an inverted triangle. The extreme north-south distance is about 900 kilometres. The Paraguay and Pilcomayo rivers form the Chaco's eastern and southern boundaries, respectively. Its northern limits are defined by the low mountains that run from Santa Cruz to Puerto Suárez; its western limits by the foothills that border the Bolivian Altiplano in a line running from Villa Montes to
The Chaco is nearly flat. It gradually rises in altitude as one moves to the north and west (from 100 metres above sea level at the Paraguay-Pilcomayo confluence to 450 metres in the extreme north-west corner). The dominant vegetation is subtropical forest, although large stretches of dry grassland abound. Chaco temperatures are hot in the summer (January daily temperatures are >29°Celsius) and comparatively cool (July averages 18-20°C) in the winter. Precipitation is highly seasonal: summer rains—October to March—flood a large part of the land; winter drought—April to September—causes the majority of the rivers to dry up. In the winter only a limited number of wells contain drinking water. Poisonous snakes, scorpions, and malarial mosquitoes present further problems. Not surprisingly, the Chaco has the epithet 'Green Hell'.

Nevertheless, the Chaco possessed a number of positive features which attracted pioneering groups to the region. Although soil depth is limited by the underlying clay base (which results in substantial summer flooding and a lack of water in the winter) the soil is rich. The Chaco's grasslands can support large cattle herds. Wood from the quebracho tree, found in large stands along the western bank of the Paraguay River, can be processed to extract
tannic acid (tannin) for use in the leather tanning industry, or cut into rail ties. Neither precious metals nor other valuable resources are found within its confines.

At the time of the Chaco War most non-natives confined their activities to an approximately one hundred kilometre wide strip of land adjacent to the Paraguay River, from Puerto Suárez--in Bolivia--in the north, to Asunción--in Paraguay--in the south; this zone had easy access to outside markets. In 1927, the Chaco's population was estimated at 37,500 of whom 30,000 were Indians.

Paraguay bordered the Chaco, its access only hampered by the Paraguay River. Most of Paraguay's major cities, including Asunción--capital, main port, and largest city--were located only a few kilometres from the borders of the Chaco (Map 4).

The northern and western boundaries of the Chaco lie within the present borders of Bolivia. However, Bolivia's largest population centres (Table 1), with the exception of Santa Cruz, lie on the Altiplano (the 3000-metre-high plain situated between the main cordilleras of the Andes Mountains), and are therefore a long distance from the disputed zone. La Paz, one of two capitals of Bolivia, lies 800 kilometres distant from the nearest point of the Chaco; Cochabamba is over 500 kilometres distant; Sucre, the other
capital, is 400 kilometres away (Map 5).

**Historic Claims to the Chaco**

The origins of the Bolivia-Paraguay Chaco dispute can be traced back to the ill-defined administrative divisions of the Spanish Empire.

In 1810, General Simon Bolivar decreed *Possidetis de Jure* whereby, "the major administrative divisions then obtaining were to provide the blueprint of the newly independent States after the Revolutionary wars." The larger Spanish political entities, which included Audiencias, Captaincies General, and Viceroyalties, were to form the basis for the new South American national boundaries. Unfortunately, Bolivar had no opportunity to clarify where these boundaries lay; at best between the entities of the the Spanish Empire lay frontiers.

In 1558, the Audiencia de Charcas was created as a political and judicial unit of Spanish control over the important mining district of the Altiplano what is now Bolivia. This area was nominally under the control of the Viceroyalty of Peru, but, in practice, Charcas was considered independent of the latter. At inception Charcas consisted of the area within one hundred leagues of the city of Chuquisaca (now Sucre, Bolivia). Unfortunately, in the next two and one
half centuries the Audiencia's official borders were revised many times. At one time they included the city of Buenos Aires.  

In August 1776 Spain, in recognition of the growing economic strength of that area created the Viceroyalty of the Rio de la Plata. In 1783, Paraguay was transferred to this new entity. In 1785 and 1787, the Audiencias of Buenos Aires and Cuzco, respectively, were fashioned from older Spanish divisions. These changes directly affected the area comprised by the Audiencia of Charcas. When the Spanish Empire broke up after 1810 there could be no consensus as to where national boundaries should run.  

Spaniards from Asunción had originally settled the western banks of the upper Paraguay River and inland along the northern fringes of the Chaco. Concepción was settled in 1773, Fuerte Borbon (now Fuerte Olimpo) in 1792, and Santa Cruz in 1561. After 1810, Paraguayans continued their consistent, albeit small-scale, exploitation of the fringes of the Chaco bordering the Paraguay River. Bolivia made an early, futile, attempt to settle pioneers along the fringes of the Chaco in the Department of Santa Cruz, but this area proved unpopular for immigration because of its isolation and lack of effective transportation.  

On 15 July 1852 Argentina and Paraguay signed the
Varela-Derqui Treaty. Article 4 stated that "the Paraguay River shall belong from bank to bank in full sovereignty to the Republic of Paraguay down to the confluence of the Paraná." Article 5 guaranteed Paraguay (and Argentina) free access to the Bermejo River (Map 2). Article 12 allowed Paraguay to build a port on the upper reaches of the Pilcomayo River. This treaty precipitated the first diplomatic clash between Paraguay and Bolivia over the Chaco. Bolivia protested the three clauses cited above, but to no avail. Both Paraguay and Argentina were stronger militarily than Bolivia.

In 1854, Paraguayan President Carlos Antonio López established a "special zone" at Nuevo Burdeos, a site ten kilometres north of Asunción on the west bank of the Paraguay River. French immigration to Nuevo Burdeos (now Villa Hayes) failed in 1855, but it was the first conscious effort by Paraguay to incorporate the Chaco into the government's sphere of influence.

In 1864, The War of the Triple Alliance, which pitted Paraguay against Argentina, Brazil, and Uruguay, began. By its conclusion in 1870 Paraguay had suffered total defeat; its economy was ruined and most of its male population were dead. Just before the outbreak of war, Bolivia had tried to interest Paraguay in diplomatic discussions concerning the
Chaco. After the fighting began, however, Bolivia attempted to profit from Paraguay's misfortunes. Under the terms of the 1865 Treaty of Offensive and Defensive Alliance, signed between Argentina, Brazil, and Uruguay, Argentina claimed all the Chaco. Argentine diplomats privately agreed, however, that once Paraguay had been defeated, Bolivia would receive the Chaco from the Bermejo River north as far as Bahia Negra (Map 3). This point was clarified in an Argentine-Bolivian treaty signed in 1868. Unfortunately, squabbles between Brazil and Argentina after 1870 over division of the Chaco resulted in Bolivia being excluded from a final settlement.18

Paraguay was not divided amongst the allies. In 1876 Paraguay signed a peace treaty with Argentina, ceding to the latter the region between the Pilcomayo and Bermejo rivers (the Chaco Central) while asserting Paraguay's claims to the region from the Verde River north to Bahia Negra.19 Under one of the treaty's clauses, United States President Rutherford B. Hayes arbitrated a disputed zone between the Pilcomayo and Verde rivers (Map 3). On 12 November 1878, Hayes ruled in favour of Paraguay (and became a Paraguayan hero) despite objections from Bolivia concerning the legality of arbitration over lands whose ownership had never been determined.20

In November 1875 Paraguay began to sell off government
land, including areas in the Chaco, as a means of generating revenue prior to the re-establishment of a sound economy. These land sales were halted in 1876, pending the negotiation of a treaty with Argentina, but were resumed again in 1883 (Table 2); land sales did not end until 1900. By this time most of the eastern Chaco, and a large percentage of Paraguay's total land surface were in the hands of private—mostly Argentine—investors. The largest Argentine investor was Carlos Casado, who bought approximately six million hectares in the Chaco. With a few years of the opening of land sales a number of small communities—Puerto Casado, Puerto Cooper, Puerto Pinasco, Puerto Sastre—had been established on the west bank of the Paraguay River (Map 4).

The 1879 Quijarro-Decoud Protocol

After the end of the War of the Triple Alliance, Argentina attempted to seize the Chaco as far north as the Otuquis River from Paraguay, as payment for war debts. This Argentine initiative, together with the 1876 Argentina-Paraguay treaty, moved Bolivia, in 1878, to open formal diplomatic negotiations with Paraguay regarding the division of the Chaco. On 15 October 1879 envoys from Bolivia and Paraguay signed the Quijarro-Decoud Protocol. This protocol established the boundary between the two nations along the 20°05' parallel, a boundary which apparently began where the
Apa River met the Paraguay River (Map 6). Paraguay possessed strong *de facto* claims to the upper Paraguay River but lack of interest, which stemmed from its economic woes after the War of the Triple Alliance, caused the nation to give them up. However, in 1881, just prior to final approval of the draft treaty by the National Congresses of both countries, Bolivia demanded changes in the protocol. The major revision demanded would have allowed Bolivia to build a port on the Pilcomayo River below the Esteros de Patiño, south of the protocol limits. Paraguay was unwilling to make such concessions; indeed, because of Bolivia's attitude the Paraguayans even refused to ratify the original draft.  

Paraguayan belief in the revenue potential of the Chaco also may have played a significant role in their refusal to sign.  

The revisions demanded by Bolivia could not have been implemented. In any case, in 1879 the country became embroiled in a war against Chile. The War of the Pacific, which would last until 1883, occurred because large deposits of natural nitrates—important ingredients in fertilizers and gunpowders—in the form of guano and caliche, had been discovered in Bolivia's Department of Atacama in the area around Mejillones (guano) in the 1840's, and Salar de Carmen (caliche) in the 1860's (Map 7). These discoveries attracted large numbers of Chilean merchants, who gradually assumed political as well as economic control over the area.
When, in 1878, Bolivia tried to impose a mining tax on the operations in the area, the Chilean merchants appealed to their government. In 1879 Chile declared war on Bolivia and Peru (which was also affected by Chilean exploitation). 25

Bolivia was decisively defeated in The War of the Pacific. The nation's loss of its Department of Atacama, which included all its Pacific coastline, was confirmed in the indefinite truce signed with Chile in April, 1884. More importantly, the loss of Atacama threatened the movement of goods between the mines on the Altiplano and the Pacific ports in the Department. To reach the Pacific, ore shipped from the Altiplano mines--vital to Bolivia's economy (Table 3; Table 4)--had to cross what was now Chilean territory. The losses in the War of the Pacific, therefore, were more important to Bolivia's welfare than its ambitions in the Chaco.

The 1887 Tamayo-Aceval Protocol

The War of the Pacific focussed Bolivian interest on the country's western border. Nevertheless, once the shock of the loss of the Pacific coastline had diminished, Bolivia re-opened discussions with Paraguay on an equitable division of the Chaco.

On 16 February 1887 the Tamayo-Aceval Protocol was
signed. Similar to the 1879 protocol, this agreement divided the Chaco into three sections, one each to be given to Bolivia and Paraguay, the third to be arbitrated by the King of Belgium (Map 6).

Unfortunately, in late 1887 Paraguayan troops stormed Puerto Pacheco—which had just been established by a Bolivian entrepreneur a few kilometres south of Bahía Negra—hauled down the Bolivian flag which had been raised over the town, and declared the region to be Paraguayan. Nonetheless, despite Paraguay's flagrant attack, Bolivia ratified the protocol in November 1888, but Paraguay's Congress, in opposition to the ruling Colorado Party, violently opposed and therefore rejected the protocol.

Over the next seven years, Bolivia continued to push for a settlement of the Chaco dispute, occasionally with the aid of neighbouring South American nations. Paraguay, for the most part, ignored Bolivia's entreaties.
Uti Possidetis de Jure

The failure of the 1887 Protocol, and the resulting animosity between Bolivia and Paraguay, created an unusual situation in which both sides in the dispute began to subsidize research into their legal claims in the Chaco. In 1892 Paraguay published the first work on its legal claims, and soon 'doctores en Chaco' were combing Spanish archives for evidence to prove their government’s rights over the Chaco. The volume of such writings peaked once in the first decade of this century, and again in the five years prior to the outbreak of war in 1932.

Initially, Bolivia's claims to the Chaco was based upon the formula, *Uti Possidetis de jure*; i.e. it derived from the boundaries of the Audiencia de Charcas. However, the difficult and unclear language of the Spanish documents meant that neither side could prove its case to the satisfacion of the other. Paraguay’s claim, instead, lay in possession, *Uti Possidetis de facto*, rather than on legal grounds (although its historians continued to comb archives containing documents on the political divisions of the Spanish Empire). Cecilio Báez, a leading Paraguayan diplomat and historian and a participant in many of the Chaco discussions with Bolivia, stated Paraguay's case simply in 1904: the country in possession (of the Chaco) owns it.
The 1894 Benitez-Ichazo Protocol

In 1894, under Uruguay's guidance, Bolivia again pressed for a settlement of the Chaco dispute; the result was the Benitez-Ichazo Protocol. This divided the Chaco into two sections, the boundary running from just above Fuerte Olimpo diagonally to the Pilcomayo River (Map 6). Neither side approved the protocol: Paraguay because of opposition in Congress and the press; Bolivia because its President, Mariano Baptista, refused to send the final draft to his Congress.

In the following decade Chaco negotiations would be hampered by political upheaval in Bolivia and Paraguay. In 1898, Bolivia experienced a bloody golpe when the Liberal Party replace the Conservatives. In 1904-6, 1908, 1909, and 1911, Paraguayan citizens endured the series of vicious civil wars, which followed from the Liberal Party's seizure of control of the government from the Colorado (Conservative) regime in 1904.

The 1907 Pinilla-Soler Protocol

Despite the political troubles in both countries, Bolivia continued negotiations with Paraguay over the Chaco. On 12 January 1907 the Pinilla-Soler Protocol was signed. This divided the Chaco into two sections, one to
belong to Paraguay, the other to be arbitrated (Map 6).

Paraguay immediately approved the protocol, but Bolivia's National Congress hesitated, and before it could render a decision, Argentina, which was to be the arbitrator, supported Peru's position in a boundary dispute against Bolivia. Therefore, Bolivia quickly rejected the proposed agreement.35

Bolivia Expands in the Chaco

Bolivia compounded tensions with Paraguay over the Chaco by implementing two administrative actions between 1905-1911. On 27 December 1905, ostensibly because of the great distances between the city of Tarija and the eastern reaches of the confluence of the Paraguay and Pilcomayo rivers, the Chaco became a self-governing Territorio, with its own delegación nacional, separate from the Department of Tarija. The Territory of the Chaco included the region from Villa Montes south-east to Esteros de Patiño as well as the interior zone of the Chaco. Villa Montes became the nominal capital.36

On 11 January 1911, Bolivia created the Territorio del Oriente as an area separate from the Department of Santa Cruz. The Oriente enclosed the area west of and parallel to the Paraguay River from San Matias, near the Brazilian border in the north, to the Pilcomayo River in the south; and from
the Paraguay River westward to approximately the 61°
meridian; there it bordered the Territory of the Chaco.
Puerto Suárez was the territorial capital. Soon after
the establishment of both these territories, Paraguayan
civilians in the Chaco began to run afoul of Bolivian
military units.

1913-21

Despite the failures of 1907 and of prior protocols,
both countries continued to discuss solutions to the Chaco
problem. On 5 April 1913 their respective diplomats signed
the Ayala-Mujía Protocol which voided the terms of the 1907
agreement, agreed to maintain the status quo for the next
two years, and disposed that if no final agreement had
occurred by the end of that time, the Chaco dispute would be
put to arbitration. Protocols to postpone a final arbitration
were signed by both nations in 1915, 1916, 1917, and 1918.
Further talks in 1919 and 1921 produced no agreement.

Save for one occasion, Bolivia was the aggressor,
after 1913, in the penetration of the Chaco. The exception
was Paraguay's settlement of two large groups of Mennonites
(totalling 3200 men, women, and children) in the central
area. The Mennonites had chosen Paraguay on the advice of
their advance scouts, and apparently against the wishes of
the Paraguayan government. The immigrants began negotiations
to buy 60,000 hectares of land from the Casado Company (originally formed by Carlos Casado) in 1921, arrived in Paraguay in late 1926, and settled on their new lands in 1927-8 (Map 8). The Mennonites immediately became a source of irritation between Bolivia and Paraguay, particularly as the immigrants had settled very close to areas where Bolivian military incursions had occurred, recently.

From 1900 to 1932, Paraguay, with the aid of the Mennonite settlements and considerable Argentine economic investment (in land, cattle, and quebracho industries), consolidated its economic control of the narrow strip of land bordering the west bank of the Paraguay River. By 1932, investments in land, quebracho, and cattle in the Chaco totalled perhaps $150,000,000 (gold pesos); these industries provided a third of Paraguay's national revenue. Narrow gauge privately owned rail networks, perhaps 250 kilometres in length (one-third of Paraguay's total), moved the goods to the Paraguay River transportation network.

Fortín Sorpresa

In the 1920's Bolivia and Paraguay rearmed their military forces with new weapons bought in Europe and North America. At the same time, military commands in both countries were instructed to take a more active role in their nation's efforts to control the Chaco. Inevitably, military
clashes occurred. Most of these skirmishes were insignificant, but two, at Fortín Sorpresa and Vanguardia, caused serious diplomatic and political repercussions within Bolivia and Paraguay, and almost led to war.

On 25 February 1927, a small Paraguayan military unit was captured near Fortín Sorpresa (Map 8, Map 11). In the ensuing struggle, the Paraguayan officer in charge was killed while trying to escape. The Paraguayan government immediately protested the Bolivian army's actions, and, for the first time, large scale public demands for military mobilization arose in both countries.  

The 1927 Gutiérrez-Díaz León Protocol

After the Sorpresa incident, Argentina was able to attract Bolivia and Paraguay back to the bargaining table in a last minute effort to avert a situation which looked as though it was going to develop into full-scale war. On 22 April 1927, in Buenos Aires, the two countries signed the Gutiérrez-Díaz León Protocol. Unfortunately, the diplomatic discussions which followed failed miserably, and Bolivia and Paraguay were left to continue their respective policies in the Chaco.

Fortín Vanguardia.

With the failure of Argentine mediation, Bolivia and Paraguay resumed their explorations, military
construction, and occasional clashes. On 5 December 1928, a large Paraguayan army unit destroyed Fortín Vanguardia, a site located just to the north of Bahia Negra. Bolivia retaliated by overrunning the Paraguayan fortines of Boquerón and Mariscal López (Map 8). Bolivia and Paraguay immediately severed diplomatic relations, and war was averted only because the attempt at full-scale mobilization proved a dismal failure in both countries. Neutral nations, led by the United States, arranged a ceasefire and issued an invitation to Washington, D.C. to resume discussions for a settlement of the Chaco dispute.

Military Expansion

By this time it had grown extremely difficult for Bolivia and Paraguay to solve their differences peacefully. This conclusion is reinforced by the decisive failure of diplomatic discussions in Washington in 1929, and by the rapid expansion of Bolivian and Paraguayan military forces, installations, and communications networks in the Chaco, which followed.

In 1930, Bolivia was forced to suspend secret mobilization plans when Paraguayan cryptographers broke its codes and published the results in local and international media. Despite this setback, Bolivia pressed on forward, gradually moving its line of fortines eastward, and, more
significantly, into the central Chaco (see Chapter III-
Military: Bolivia).

War and Settlement

On 15 June 1932, a Bolivian military unit captured
Fortín Carlos Antonio López from its Paraguayan garrison.47
This incident touched off a string of events which led
directly to war (although Paraguay did not officially declare
war until 10 May 1933 and Bolivia officially acknowledged
it). Within a few weeks Bolivia forces quickly overran a
section of the Paraguayan front lines. However, Paraguay's
armed forces, once fully mobilized, exploited their shorter
supply lines to push the better equipped, but less
effectively led, Bolivian forces back to the foothills of
the Andes Mountains. Bolivia was finally able to stabilize
its military front in June 1935 just to the east of Villa
Montes and just short of Bolivia's main oil fields.48

At this point, on 12 June 1935, concerned neutral
nations were able to impose a ceasefire on the exhausted
combatants. On 21 July 1938, after three years of difficult
negotiations and a near resumption of hostilities, Bolivia
and Paraguay signed a definitive peace treaty.49 Paraguay
was awarded approximately eighty percent of the Chaco
Boreal (Map 8).
The Chaco War cost the lives of nearly 100,000 soldiers (36,000 Paraguayan and 57,000 Bolivian). The continual mobilization and expenditures on weapons created serious inflation and social dislocations in both countries, and destabilized their political systems.
CHAPTER III

CHACO CAUSATION:

PREVIOUSLY INADEQUATELY DEFINED

The eight theories of Chaco causation analyzed below are (with the exception of Oil, discussed in Chapter IV) the important ones found in the historical literature. They are presented in an approximate chronological sequence.

Alternative Port

Proponents of the Alternative Port theory believe that Bolivia recognized from independence onward a need for a major port on the Pilcomayo or Paraguay rivers for the movement of goods to the Atlantic Ocean. By complementing ports on the Pacific, this Chaco port would reduce economic pressures being brought to bear by Bolivia's neighbours.

As Kain states, "The recent conflict in the Chaco ... was directly caused by Bolivia's search for a port on deep water."51 Peñaloza maintains that Bolivia had long wanted this option, "Desde los primeros tiempos de la República se había acariciado el proyecto de unir al Oriente boliviano con el Atlántico."52
Nevertheless, these statements are contradicted by the facts. After independence, Bolivia's orientation lay with its western frontiers. The country could not overcome transportation difficulties on land and the poor navigability of rivers in the Chaco. Bolivia's government neither systematically searched for nor developed a port on the Paraguay or Pilcomayo rivers. Until as late as 1952 successive governments initiated little development in the Department of Santa Cruz and Chaco. Three examples, discussed below, illustrate my point.

To The West: Rail Links et al

Bolivia's historical western orientation is evident in the rail system which Tinked the Altiplano to the Pacific Coast, and in the economic orientation of the political parties in power from 1880 to 1932.

Rail Links

Prior to 1900, Bolivia's economic strength lay in its silver mines (Table 3); export duties on silver provided the majority of government revenues. Other minerals—gold, tin, lead—were also economically important. Almost all this mining activity was centred on the Altiplano, at sites such as Potosí and Oruru.
Bolivian governments realized, early on, that transportation costs for the movement of the ore presented one of the nation's most severe problems. The movement of ore could only be to the west, to ports on the Pacific coast -- as this represented the easiest and cheapest route. As an example, even in the most difficult of times (the years after the War of the Pacific) Bolivia continued to move its mineral exports through ports in the west. Only during the period 1879-1884, when Chile blocked Bolivian exports through its old ports, was a small tonnage of ore (primarily silver) sent south by mule, on the long and arduous journey to the Argentine port of Rosario de Santa Fés (a long and arduous journey).

In 1883, under Conservative Party auspices, construction was begun on a rail network designed to link the ports of Antofagasta and Mejillones with the southern Altiplano silver mining district (Map 9). When the network was completed to Oruru in 1892 transportation costs for silver ore were reduced substantially. Another line, a rail-water network completed in 1905, moved goods from La Paz to Mollendo on Peru's Pacific coast. In addition, in 1904 Chile began construction of a rail line from Arica to La Paz (this line was part of a final adjustment to the truce concluded in April 1884 between Chile and Bolivia). Essentially complete in 1908, this line opened up a much
shorter and faster route to the Altiplano. By 1911, with the completion of a line to Potosí, all major sites on the Altiplano, with the exception of Sucre (which was bypassed for political rather than financial reasons) and Tarija, had been linked.

There were few exception to the western orientation of the rail network. In 1907, Bolivia began construction of a rail line between Uyuni and Villazón. This rail line was Argentine inspired. The Argentines constructed the section from Villazón to Tupiza, from 1912 to 1925, Bolivia only the section from Uyuni to Tupiza.56

The government had plans to build rail lines to other regions, but with the exception of the stretch to Cochabamba (discussed below), these did not materialize.57

Political Parties.

The initiation of the rail network occurred under the aegis of a number of individuals in the Conservative Party (1884-98). It is not a coincidence that three Conservative Presidents of Bolivia--Gregorio Pacheco (1884-8), Aniceto Arce (1888-92), and Severo Fernández Alonso (1896-9)--owned large silver mines (Table 5), and the fourth--Mariano Baptista (1892-6), was a lawyer for one of the mine owners. (For a complete listing of all Bolivian and Paraguayan
The Liberal Party (1899-1920) completed the project of linking all the important economic areas of the Altiplano with the western outlet to the sea. Ironically, the Liberals had come to power as a Federal party—with substantial support in the eastern lowlands—but once in power they reverted to a centralized political stance similar to that of their predecessors.59

The Liberals' policy decision were based on expediency. Bolivia's economic strengths in the decades prior to the Chaco War lay with the export of minerals. An efficient transportation system reduced the costs of production and as a result strengthened Bolivia's ability to compete in the international market.

To The East: Santa Cruz de la Sierra

The early settlers of Santa Cruz received enormous land grants and, from that time to the present, have maintained a form of rural aristocracy in virtual isolation from the rest of the world.60

If proponents of the Alternative Port theory are correct, then Santa Cruz—250 kilometres by air from Sucre, 300 kilometres from Cochabamba, and directly astride the
main route from the Altiplano to the Paraguay River—should have become an important agricultural and transportation centre. Nothing of the sort occurred.

Routes

Aside from ports on the Pacific, Bolivian goods had only three potentially usable routes of access to world trade, lanes (Map 2). The first Spanish explorers and settlers pioneered two routes between Bolivia’s Altiplano and the Atlantic Ocean. The first began at Cochabamba, crossed over to Todos Santos, then followed down the Mamoré River to the Amazon River, and the Amazon to the Atlantic Ocean. The second also began in Cochabamba: it crossed over to Santa Cruz, ran past San José and Roboré, and ended at either Gaiba or Corumbá. Ships then carried travellers down the Paraguay River to the Atlantic. Both these routes declined in importance after 1776. Instead, most travellers went by a third, more southerly, route to Buenos Aires, via the Argentine cities of Salta and Tucumán. After independence this route also declined in importance, as movement to the west increased.\(^1\)

Movement from the Altiplano into the Chaco followed three natural tracks. The first led from Tarija to Villa Montes, the second began at Sucre and extended to Lagunillas, the third originated at Cochabamba and ended on
the plains near Vallegrande (to the southwest of Santa Cruz). The centre route was considered the easiest for travellers, but after 1900 political considerations (Sucre was the Conservative seat of government until 1899 and remained staunchly Conservative after this date) consigned it to disuse.

The transportation network in the east had improved very little by 1932. In 1931, Bolivia completed a road between Cochabamba and Santa Cruz, but it was designed to aid the movement of troops to the Chaco front, not to aid civilian development. In the south there was only a single 419 kilometre road between Villazón and Villa Montes, often out of service because of climatic conditions. Prior to 1925 (when the airline Lloyd Aéreo Boliviano was established by two German-Bolivians), east-west travel was either by foot or by mule; travel was inhibited by the steep 3000 metre gradient between the eastern lowlands and the Altiplano. Santa Cruz was twelve days by mule from Cochabamba (presumably given good travelling weather); at times, the movement of goods between the two centres was extremely difficult.

East of Santa Cruz roads were in worse condition. In 1928, Julian Duguid travelled from Puerto Suárez to Santa Cruz and on to Tarija. On many occasions, he was shocked
by the primitive state of the roads over which his party travelled, the lack of population in the region, and the obvious false designation of 'towns' found on his official Bolivian maps. San Lorenzo, for example, was described as a town: its population, he discovered consisted of one family totalling five members. Routinely, mail carriers travelling between Santa Cruz and Puerto Suárez were killed by natives.66

Because of the difficult road conditions official plans were developed to build a rail system to aid development of the eastern lowlands and to provide another outlet from Bolivia, apart from the Pacific ports. Iturralde, a Bolivian Senator during the 1910's and 1920's, has provided historians with a clear picture of the political discussions surrounding attempts to establish an eastern rail system.67 Ultimately, however, Bolivia developed its western transportation network at the expense of the eastern lowlands; the eastern rail network was never built because of high cost estimates and political ramifications.

In the east, only Cochabamba was linked by rail (completed in 1917) to the economic centres of the Altiplano (Map 9). An extension of this line to Santa Cruz, to be completed by 1926, was abandoned a few kilometres outside of Cochabamba, ostensibly because of a lack of funds. At the
time, Bolivia was experiencing serious monetary problems caused by its large accumulated foreign debt, but the immediate cause of lack of funds was most likely due to the extraordinary proportion of public funds being funnelled into the military (a process that had begun in 1921; see Chapter III; Military, Bolivia) and the western rail network. Cochabamba won rail service because of the political and rhetorical skills of some highly regarded members of Congress (these included a later president of Bolivia, Daniel Salamanca), the formation of an offshoot of the Liberal Party in Cochabamba—the Republican Party (ruling party from 1920-34—Table 6), and the proven economic importance of the area's agriculture.

Climatic conditions compounded the problems of the eastern transportation systems. The winter rains could at times make it impossible to travel anywhere. Rains caused the rivers to swell, and travellers might have to overcome a series of these natural obstacles. In 1913, a military unit on temporary duty in Santa Cruz was forced to wait eight months until the roads between Santa Cruz and Cochabamba became passable.

Geography and Agriculture

Santa Cruz sits amid low hills, on fertile, well-drained soil. Most of the region surrounding the city is
thickly wooded, with large stands of deciduous trees. There
are large stretches of natural grassland and low
vegetation. These factors, plus the low altitude (five
hundred metres) and moderate precipitation (1250 millimetres
per year), contributed to a relatively pleasant, if somewhat
hot, climate.

The Department of Santa Cruz contains some of the
finest agricultural land in the country, rivalling the
region around Cochabamba and the Yungas. Sugar cane,
cotton, rice, coffee, corn, oils, and fruits grow abundantly
in the area. Cattle were raised in huge herds on the
grasslands to the north and the east. If it were not for the
lack of transportation, the Department could theoretically
have supplied nearly all Bolivia's agricultural needs. But
this agricultural development did not occur, as a short
historical sketch of the region shows.

History.

Bolivian official interest in developing the economic
potential of the Department of Santa
Cruz can be traced back to the beginnings of the Republic
in the 1820's. A decade later, in 1836, the first colony
in the Chaco was established -- in the area of the Otuquis
River (Map 3) -- by Miguel Luis Oliden. In 1843 an official
expedition sailed down the Pilcomayo River in an attempt to
find a route to the Atlantic Ocean. The three sailing ships which carried the exploration team were lost at the Esteros de Patiño—a huge, totally unnavigable swamp. A similar expedition in 1844 also ended in failure, although the village of Magariños was established on the north bank of the Pilcomayo. There were further journeys down the Pilcomayo River in 1863 (accompanied by Bolivian soldiers), 1882 (by a French explorer, Dr. Julio Crevaux), and 1884-1890.

Bolivian historians also point to legislation as proof of their government's interest in developing the eastern lowlands. Simón Bolívar's first presidential decree, on 14 December 1825, included a plan to distribute land to individuals to attract population to the eastern lowlands. A more substantial law was passed on 6 August 1842 to encourage Bolivian immigration into the area.

Nevertheless, these gestures and similar legislation in 1861 and 1878 failed to aid the development of Santa Cruz and parts east. Concessions to private entrepreneurs suffered the same fate. For example, in July 1905, the government let a huge colonization and navigation concession to a syndicate of Bolivian entrepreneurs. The concession changed hands three times in the next seven years before being abandoned as impractical.
In 1912 Santa Cruz' position as a potential large-scale agricultural producer was undermined with the completion of the Mamoré-Madeira Railway (Map 9). The original railway project, had been planned and begun in 1870 under the auspices of George Church, but was abandoned soon after because of the lack of capital and of sufficient markets to provide the line with goods to move. However, when the rubber boom began in the Beni after 1880, the project was resurrected. The railway, completed in 1912, allowed cheap Brazilian manufactures and agricultural products to be imported into the Department of Beni, which was at that time Santa Cruz' only large external market for its agricultural products.

Between 1913 and 1925 the Santa Cruz economy remained stagnant. This was due not only to the opening of the Mamoré-Madeira Railway, but also, as Fifer stated, to "the isolation of the Santa Cruz region and much of the Oriente [which] had in fact been increased by the construction of the Western Rail System." He went on to say,

... the faster and more reliable rail links between the altiplano and the Pacific Ports encouraged importation of cheaper goods and confirmed Bolivia's designation as a Pacific state despite its loss of a Pacific seaboard. ...

When La Paz did not come through with its promised rail line between Cochabamba and Santa Cruz in the 1920's, ...
a number of serious public demonstrations took place in Santa Cruz; rebellions occurred in 1922 and 1924, the latter of which had to be put down by the military. Sessionist tendencies were so strong that in 1925 Cruceños were said to sing the Argentine national anthem—indeed, had been doing so for fifty years. 

During the late 1920's only a very few civilian Bolivian settlements existed in the Chaco; by 1932, only 16,000 of the 500,000 hectares of government land available for immigrants and pioneers had been sold. Unofficially, the government had given up plans for large scale colonization.

Despite the obvious economic potential of the Department of Santa Cruz, and its location astride the major route leading from the Altiplano to the Paraguay River, this area was never developed prior to the Chaco War. Its population increased very little up to 1932 (Table 5).

"Only since the early 1950's have significant and consistent efforts been made to develop the area [Santa Cruz] economically." This neglect, more than any other evidence, shows that successive governments of Bolivia were never seriously interested in the eastern lowlands; this, in turn, implies that the governments were not seriously interested in developing an Alternative Port.
The eastern department was never integrated into the western based economy because of geographical, social and political factors which deprived the region of expanded markets and transport routes for its products.

Navigation

The arguments of proponents of the Alternative Port theory are pointless if it can be shown that the Pilcomayo and Paraguay Rivers were unsuitable for the large-scale movement of goods. Instead, there are questions about the suitability of the Pilcomayo and Paraguay rivers for the movement of goods. As either, in fact, sufficiently navigable for Bolivia to have shown great interest in construction of a port in the east?

Writers have offered two very different answers. A number of authors maintain the Paraguay River was navigable; others believe it was not. There continue to be disputes by contemporary authors concerning the state of the river for shipping. Documents submitted to the League of Nations do not agree. A glance through any number of works on the Chaco War shows that most authors do not understand the importance of Chaco navigation problems and their relationship to Bolivian efforts to establish a port on either the Paraguay or Pilcomayo rivers. Exceptionally, Harris Gaylord Warren has provided a clear picture of the history of river commerce on the Paraguay River in the
decades after the War of the Triple Alliance (1878-1904) together with an analysis of river conditions year-round. I assume they would be little different in the years between 1900 and 1932.¹⁹

Argentine companies controlled shipping up and down the Paraguay River after the War of the Triple Alliance. In 1885 there were 875 vessels servicing the various ports, including those of Brazil on the northern stretches of the river.²⁰ Nevertheless, vessels with a draft greater than two metres rarely ventured on the Paraguay River; above Asunción this figure declined to one metre.²¹ Rout gives a figure of 2.2 metres for the maximum depth of water at Asunción under normal conditions.²² The 2.2 metre figure limits ships to less than 1500 tons and, as a consequence, their cargo capacity is restricted.²³

Thus, the upper reaches of the Paraguay River can only be navigated for little more than six months of the year, when river levels are high.²⁴ This places a serious limitation for a nation depending on an outlet on the upper Paraguay River as a viable alternative to the Pacific ports.

The consequences of this navigation problem can be easily understood. Puerto Suárez, established in 1875, failed after the Chaco War.²⁵ Puerto Quijarro (200 kilometres
north of Puerto Suárez—see Map 10), built twenty-five years later, in 1900, went into liquidation in 1931. Note that Quijarro does not appear in Table 7, and Puerto Suárez remains only a minor port for the handling of Bolivian goods.

Some maritime traffic uses the Paraguay River. The Brazilian cities of Corumbá (ten kilometres east of Puerto Suárez) and Coimbra are dependent on goods moved this way. Nevertheless, neither the Paraguay nor the Pilcomayo (which has proved nearly unnavigable) has reliable year-round depth to provide an alternative route for ore exports from the Altiplano—even were it possible to overcome the long distances from the Altiplano and road conditions in the lowlands. These factors, I assume, were known to government officials.

Cheap Riches

In general, any official Bolivian interest in the eastern lands centred on valuable, easily extractable, resources. The quinine boom (1840-70) in Caupolicán (above Lake Titicaca) and Cochabamba, and the rubber boom (1880-1912) in Acre in the Department of Beni in northern Bolivia, attracted large numbers of private speculators and workers (80,000 from Santa Cruz and a lesser number from Cochabamba ended up in the Beni). Government and private interest in the east only lasted
until the riches ran out (quinine) or the territory was lost (as the Beni was to Brazil). The Department of Santa Cruz never enjoyed a similar economic boom.

It is clear that, with the exception of the eastern departments, the question of Acre touched only marginally on national [Bolivian] life...\(^{100}\)

Those writers who support the Alternative Port theory advance little evidence to prove Bolivia had a serious and consistent concern for its eastern lands prior to 1932. This point will be reinforced in the next section: the War of the Pacific theory suggests that Bolivian concern for the vulnerability of exports moved through the Pacific ports only surfaced after 1883.

**War of the Pacific**

Now isolated... the Andean nation cast about desperately for an alternative export route for her considerable mineral wealth. Paraguay’s River... seemed the obvious choice.\(^{102}\)

According to the War of the Pacific theory, Bolivia recognized that with the loss of the Department of Aracania the country was economically dependent on the goodwill of its neighbours; this vulnerability, it is argued, created an official drive to discover alternatives. The most obvious alternative was a port on one of the navigable rivers in the Chaco. The Alternative Port Theory suggests an historic drive to the east; this theory proposes that Bolivia’s
recognition of vulnerability occurred only with the conclusion of the War of the Pacific.

La possession d'un port utilisable sur le rio Paraguay représentait en effet pour la Bolivie un impératif absolu [after the War of the Pacific].

José Estigarribia, Paraguayan Army Chief of Staff during the Chaco War, believed, "Unable to reconquer by force the land of which she had been deprived [Atacama], Bolivia then sought out a compensation somewhere else...

Ronald Kain entitled one of his articles, "Bolivia's Claustrophobia".

Although the argument for the Alternative Port Theory is weak, some evidence presented in that section—that concerning, for instance, the early exploration of Bolivia's lowlands and the Chaco or the land concessions let by the government—can be used to undermine the War of the Pacific Theory. A low level of government interest in a Chaco port existed prior to the War of the Pacific; more importantly, this interest did not increase dramatically after Bolivia lost its Pacific ports.

Bolivia's lack of interest in the Chaco after the War of the Pacific is pointed up by two examples. The first concerns the activities of Bolivian entrepreneur Miguel Suárez Arana; the second, Bolivia's continuing interest in the Tacna-Arica negotiations between Chile and Perú.
Miguel Suárez Arana

In 1879-80 Bolivia lost the War of the Pacific.

Around 1877 Miguel Suárez Arana, a Cruceño, built Puerto Suárez, a few kilometres distant from the Brazilian town of Corumbá (Map 10). This port, which was to serve as a terminal for the shipment of goods from the Department of Santa Cruz, soon proved useless because the channel which lead from the Paraguay River to the site regularly silted up. Suárez Arana soon found there were few locations along the upper Paraguay River which had the requisite physical characteristics for a successful port; summer floods inundated most of the area.

Several years later, in 1884, Suárez Arana approached the Paraguayan government for approval for another port on the Paraguay River. He had previously received such approval from his own government in 1875. Paraguay gave permission on the understanding that the port not be built south of Bahla Negra, a outpost then considered the northernmost limit of Paraguay. In 1885, Suárez Arana founded Puerto Pacheco, fifteen kilometres south of Bahla Negra. There were very few sites above Bahla Negra suitable for a port and he must have hoped he could gain recognition from the Paraguayan government despite ignoring its provisos. He was wrong: in 1887, as described in Chapter II, Paraguayan troops
Suárez Arana’s project to develop a port on the Paraguay River was ten years in the planning (it began sometime prior to 1875). Although the evidence is not clear, it seems likely that he hoped to develop an outlet for goods produced in the Department of Santa Cruz, not necessarily for goods from the Altiplano. After Puerto Pacheco was lost, Bolivia did not establish another port on the Paraguay River until Puerto Quijarro (discussed above) in 1900. Further official Bolivian concessions designed to stimulate the development of communications and movement of goods from the eastern lowlands came to nought.

Bolivia and the Tacna-Arica Controversy.

Bolivia officially signed away any legal rights to its former Department of Atacama (Map 7) in 1895. Perú, Bolivia’s ally in the War of the Pacific, never relinquished its claims to ownership of territory lost in the war with Chile. As a consequence, Perú became embroiled in a long-running diplomatic and political dispute with Chile—the Tacna-Arica Controversy. Right from the beginning Peru and Chile encountered great difficulties in their attempts to come to a consensus on the conditions for a plebiscite in the disputed territory to determine ownership (an integral part of the 1883 peace treaty between Perú and Chile), and
these repeated failures gave hope to Bolivia, which had been excluded from the original Tacna-Arica discussions, that it would be part of a compromise solution, and perhaps regain at least one of the Pacific ports lost during the War of the Pacific.¹¹⁴

Bolivia’s interest in Tacna-Arica, was pushed into the background by other national political and economic concerns after 1884, but re-emerged with the 1904 adjustment to the 1895 treaty. The 20 October 1904 Treaty of Peace, Friendship and Commerce provided Bolivia with an indemnity of £300,000¹¹⁵ and the gift of a new railway from Arica to La Paz to be built by Chile (discussed above in the Alternative Port Theory- Rail Links). Bolivia was also accorded “commercial transit rights”¹¹⁶ at the Chilean ports of Antofagasta and Arica.

Bolivia’s political opposition attacked the 1904 agreement. They castigated Montes for his decision to accept the 1904 proposal and demanded Chile return sovereign control over the area back to Bolivia. Nevertheless, economic prosperity in the 1910’s and the world political tensions which culminated in the Great War mollified Bolivia’s opposition. In any event, Chile refused to modify the 1904 treaty further.¹¹⁷
In 1919 Bolivia petitioned the League of Nations to be included in the ongoing Tacna-Arica conciliation. In 1921 the League (which was monitoring the discussions) turned down this request, stating that the conditions of the 1904 Chile-Bolivia treaty excluded Bolivia from further interest in the area.\textsuperscript{118}

In 1923, the United States initiated international support for Bolivian demands for a port on the Pacific Ocean. Despite strenuous individual efforts (U.S. Secretary of State Frank Kellogg, for example), by 1927 these had failed.\textsuperscript{119} Both Chile and Peru ignored American appeals for sympathy for Bolivia's cause. The final Chile-Peru accord in the Tacna-Arica dispute was signed on 28 July 1929. It was a huge blow to Bolivian hopes, and may explain, in part, the country's actions against Paraguay after 1929.\textsuperscript{120}

Since 1938 Bolivian officials have continued discussions with Chile and Peru over this question. Through 1975 a number of schemes had been suggested as a solution to Bolivia's problem.\textsuperscript{121} As yet there has been no trilateral agreement (Peru and Chile must both agree on a course of action regarding Bolivian demands).

Bolivia has never lost sight of its ultimate objective. The nation's diplomatic interest in the Chaco between 1879 and 1929 was minute by comparison to its
interest in the Tacna-Arica discussions, Klein compares the
two disputes:

Meanwhile, in late December 1926, the littoral
issue began to be submerged for the first time in
Bolivian newspapers by news stories on the Chaco
Boreal and Bolivia's historic dispute with Paraguay
over this territory.\textsuperscript{122} [italics added]

Child suggests that Bolivia will never achieve
greatness and will continue to live in tension with its
neighbors until one of its Pacific ports is returned.
"This theme is a major issue in Bolivian foreign relations
[1985] . . ."\textsuperscript{123} Child sees the Pacific Port Question as

In conclusion, the War of the Pacific theory fails
to address Bolivia's lack of development of its eastern
lowlands after 1879, and fails to provide evidence that a
substantial effort was made to develop a transportation
network along the major rivers on the periphery of the
Chaco. The theory ignores the economic reality of Bolivia
from 1879 to 1932: tin had been found on the Altiplano; it
had supplanted silver as the country's main export and (Table
9) was also being exported through ports to the west.

The increase in exploration\textsuperscript{2} along the Pilcomayo River in the
1880's (mentioned in the Alternative Port Theory) is
interesting, but there is insufficient evidence to prove
that the War of the Pacific was the decisive factor in this
increase. That the War of the Pacific Theory was the decisive
causal factor in the events leading to the Chaco War is even
less demonstrable.

The Military's Role in the Chaco

This theory proposes that the Bolivian and Paraguayan
military were primarily responsible for the escalation of
diplomatic tensions over the Chaco to full-scale war.

Proponents of the theory imply that each military
establishment was acting essentially independently of the
political system of its own country.

Paraguay

... se levantaron las construcciones [paraguayas]
de Villa Hayes, Puerto Sastre, Puerto Casado, Fuerte
Olimpo y otros ... [y] los fortines Galpón y Patria.
Por el Pilcomayo hicieron otros puestos hacia los
Esteros de Patiño. ...
... Para contrarrestar ese esfuerzo, de parte de
Bolivia sólo se hizo una entrada por el Pilcomayo en
1906 y se fundaron los fortines Guachalla y
Ballivián.124

Paraguayan military actions prior to 1932 helped
create the conditions which led to war. Not unexpectedly,
Bolivian historians maintain their country's activities in
the Chaco came only in reaction to Paraguayan moves.

The Bolivian historians' indictment of Paraguay's
military includes: Paraguay's attack on Puerto Pacheco in
1887; Paraguay's blockade, at Bahía Negra, of Bolivian
attempts to push down the Paraguay River in the early 1900's—an action which forced Bolivia to attempt exploration and development down the Pilcomayo River; Paraguay blockade of Bolivian expansion at the mid-reaches of the Pilcomayo River near Esteros de Palmae (Map 3), after 1921 (as protection against which aggression Bolivia built fortines at Magariños, Munoz, and Saavedra); the sale of arms by Chile to Paraguay in 1921 and 1924, arms which then were used in the Chaco against Bolivian troops; and finally, the destruction of Vanguardia in 1928 by Paraguayan troops.

This is a strong bill of indictment. Nonetheless, Bolivian writers are mistaken about several points. It is impossible, for example, to confirm or deny the accusations that Paraguay blocked Bolivian expansion. Some of Paraguayan military activity was undoubtedly related to constant political turmoil in Paraguay from 1904 to 1924—the armed forces had split into several weak factions—Conservative and Liberal, among others—and disaffected elements ended up being stationed in the Chaco. In 1921, Paraguay did sign an agreement with Chile to purchase small arms, but Bolivian writers may have exaggerated the size of this sale to the Paraguayan government by combining it with a similar one contracted for by Paraguay's political opposition. Weapons
purchased by the latter were used in an attempted golpe in 1922-3 and a very serious civil war ensued. Those arms not lost in the fighting were incorporated into the arsenal of the armed forces.\textsuperscript{127} Paraguay's military actions at Vanguardia were the result of local frustration; the attack occurred at the initiative of a local commander, Major Rafael Franco. Paraguay had no plans for mobilization; the government had carefully kept military budgets low and restrained its generals.\textsuperscript{128}

Following the disaster of the War of the Triple Alliance Paraguay's armed forces were partly rebuilt at the turn of the century; new weapons were acquired in 1898, 1904, and 1908. In 1908, Paraguay established five military zones, three of which were centred on Concepción, Villa Hayes, and Fuerte Olimpo. Nevertheless, Villa Hayes and Fuerte Olimpo had only minimal forces, and Concepción none at all.\textsuperscript{129} The government of Paraguay did not react to Bolivia's show of strength in the Chaco until the mid 1920's. On 15 August 1924, President Luis Riart reorganized his country's military structure to improve its efficiency, strength, and ability to mobilize rapidly.\textsuperscript{130} In addition, he authorized serious exploration of the Chaco under the direction of ex-White Russian General Juan Balieff.\textsuperscript{131} In 1925, President Eligio Ayala continued Riart's re-organization; large quantities of rifles, machine guns,
artillery, and aircraft were bought from firms in Spain, Denmark, France, and Great Britain.\textsuperscript{133}

James Dunkerley, who has completed an important study of the politics of the Bolivian army, concluded that Paraguayan response to Bolivian aggression after 1927 was primarily defensive; an attempt to arrest Bolivia's expansion in the Chaco.\textsuperscript{134} Dunkerley may overstate the case for the Paraguayan response; English noted that Paraguay, prior to 1928, had only a single infantry battalion to garrison the Chaco.\textsuperscript{135} In 1931, Paraguay had only five hundred troops scattered the region from Bahía Negra to Villa Hayes.\textsuperscript{136} In reality, as in so many South American armed forces, Paraguay's military was a control mechanism integrated into the political system, one used primarily against native tribes and political dissidents. For example, army units were employed as guards as early as 1870 to protect colonists against Indian attacks in the area around Villa Hayes.\textsuperscript{137}

Paraguay entered the war primarily to defend the profitable interests already developed in the Chaco under her auspices. \ldots \textsuperscript{138} [Italics added]

Nor is it likely that Paraguay was prepared to fight Bolivia.\textsuperscript{139} Those authors who doubt that Paraguay was ready and willing include: José Estigarribia---Commander-in-Chief of Paraguay's forces during the Chaco War---who stated in his autobiography, "\ldots a few days after I returned from
France 22 September 1927 where he was completing additional officer training! . . . I could verify directly the almost complete absence of all kinds of preparations for the defence of the Chaco . . . "140 Luis Vittone141 and Antonio González,142 both officers who fought in the war, also wrote excellent historical works afterwards on their country's efforts before and during the Chaco War. None of the three was necessarily trying to deflect blame onto Bolivia; rather, they were displeased with the response of both the Paraguayan government and of the military high command to Bolivian expansion in the Chaco between 1921-1932. Other Paraguayan, Angel Ríos for example,143 disagree with the proposition that Paraguay was not prepared. Supporters of Ríos and González have engaged in acrimonious debate on the question, and it seems the last word on this argument has yet to be written.

Certainly, Paraguayan doubts concerning the nation's military capability are suggested in the 1921 Chile-Paraguay arms agreement: this treaty included a proviso that Chile would lend military support to Paraguay in the event the latter was attacked by Bolivia.144

The evidence presented by Bolivian historians to substantiate the theory that the Paraguayan armed forces were responsible for the Chaco War is flawed. Before 1925
Paraguay's military remained fragmented and disorganized; after 1925 its activities in the Chaco were restrained by government decisions. This conclusion is re-inforced by evidence concerning Bolivia's military that will be presented in the following section.

Yet, when the efforts of Bolivia tended more and more to the occupation of the Chaco, Paraguay persisted in the belief that the dispute could be postponed indefinitely, as in the past, and that the threat of a conflict at any moment the question could degenerate into a military conflict.\textsuperscript{145}

Bolivia

El nuevo Mandatario, and his military collaborators, obsessed with the patriotic idea of 'pising the Chaco', had decided to carry out a wide plan of penetration and enlace in the Chacoan territories to curb the advances of the Paraguayan.\textsuperscript{146}

Criticisms of the Bolivian forces originate with Paraguayan authors, such as Pedro Ciancio, who viewed the German-trained army with some trepidation, "Estos factores... son las causas... de la guerra actual del Chaco... Estado Militar [de Boliviano], ideología de Fuerza bruta..."

\textsuperscript{147}; with Bolivian authors who view its war-time performance and excesses of some of its officers with distaste (there are repeated references to debauchery amongst the higher officers)\textsuperscript{148}; and with foreign writers, a number of whom state that the actions and aggressive stance of Bolivia's military lay at the core of the
conflict in the Chaco.  

Bolivia's army is partly to blame for the ensuing conflict. Nevertheless, I shall argue that its activities, particularly the last act in the Chaco drama, were for the most part the result of political decisions. A brief history of the Bolivian armed forces clearly demonstrates this.

History To 1900.

The War of the Pacific discredited the Bolivian army. Its rebirth began under President Arce when he established a new Military College in Sucre in 1891. In the late 1880's the army received small arms and artillery from the German firm of Krupp to replace the substantial losses incurred during the War of the Pacific. Despite these additions, between 1891 and 1899 the army survived only as a small, barely organized force (1273 officers and men), unable to defend Bolivia's frontiers against any foreign aggressor. (Conditions were little different from the previous decade when there had been no Bolivian military response to Paraguayan forces' assault on Puerto Pacheco in 1887). Dunkerley states that on several occasions Peru was asked to send military units to help protect Bolivia's internal supply lines. In effect, Bolivia's military was used primarily as a police force.

The 1898-9 campaign in Acre dramatically demonstrated
the Bolivian army's ineffectiveness. The Department of Beni contained some of the richest rubber producing areas in the world. In the late 1890's Brazilian and Peruvian entrepreneurs, who made up the majority of the population in the area, began to agitate for secession from Bolivia. This proposal was opposed by Bolivian rubber merchants. The latter asked their government for military aid, and some small Bolivian units were sent to the front. The units accomplished little in the short time they were stationed in the north, being outnumbered and outflanked; the soldiers were constantly sick with various fevers. The campaign was cut short by the 1898-9 Bolivian civil war.\textsuperscript{153}

1900-1920.

When the Liberal Party came to power in April 1899 the army was immediately purged of "dissident" elements\textsuperscript{154} and reformed around individuals who had supported the Liberal cause (most of the army had supported the Conservative regime during the civil war). This new army was established under the guidance of General José Manuel Pando, President of Bolivia (1899-1904), and Colonel Ismael Montes (rewarded with promotion to general for his service to the Liberal Party during the civil war), Minister of Defence in the Pando government, and later twice president of the country (1904-9, 1912-7).
After 1900, new barracks, schools, and arms replaced equipment long obsolete. There was a semi-successful attempt to enroll Quechua and Aymará Indians into the force. An Academia de Guerra and Intendencia General de Guerra were established, and the Colegio Militar moved to La Paz from Oruru. Five military zones were created: La Paz, Oruro-Cochabamba, Potosí-Chuquisaca, Tarija-Santa Cruz-Beni, and the north-western colonies.155

After becoming president in 1905 Ismael Montes continued to improve the armed forces. The Estado Mayor General was created, conscription was legislated in 1907, rules governing retirement and promotion were redrawn, a Revista Militar was established for the officers, and new German weapons were acquired in 1907 (again from Krupp). French weapons were bought in 1910 from the firm of Schneider.156

In 1905 Montes gave a four-year contract to General Jacques Sever, late of the French Army (he had been forced to retire because of his complicity in the Dreyfus Affair), to head a mission encharged with modernizing the internal structure of the Bolivian army along European lines.157 An official German mission, contracted by Montes when he was Bolivia's Ambassador to Germany, replaced the French in 1911. The mission returned to Germany in 1914 when
war broke out in Europe,\textsuperscript{156} having improved some aspects of Bolivia's military structure.

The greatest changes during the period 1900-20 arose from the policy, pushed energetically by Montes, of garrisoning Bolivia's outlying regions.\textsuperscript{159} Fortines were established in a number of areas in eastern Bolivia (Table 8). The greatest concentration occurred in the Chaco, although smaller numbers lay along the Peruvian and Brazilian borders in the north and north-east. In the Chaco the first fortines were built in the south-east, along the Pilcomayo River, and date from 1905.

Fortines were not a new concept. Cleven notes that Bolivian government resolutions of 9 and 22 August 1878 authorized the founding of fortines in the Oriente.\textsuperscript{160} The Campore government (1880-4), with the decree of 19 March 1880, ordered the building of fortines in the province of Azero, in Chuquisaca.\textsuperscript{161} A number were built along the Pilcomayo River during the 1880's as government approved Bolivian explorations of that area were carried out (Table 12).\textsuperscript{162}

Nevertheless, prior to 1905 Bolivian military presence in the eastern lowlands—particularly in the south and east—was non-existent; the army was too weak to guard the
frontiers as well as the major Altiplano centres. In addition, many of the colonization projects the army was supposed to protect had not materialized. However, the government changes to the military structure outlined above halted this decline. After 1905 the strength of the military and the number of fortines steadily increased.

The government controlled this initial Bolivian military penetration of the Chaco. For instance, in 1912, when the boundary dispute with Paraguay became serious:

... por consiguiente las relaciones diplomáticas se pusieron vidriosas y era preciso tomar medidas de carácter militar. El presidente Villazón resolvió pues, en previsión de futuros acontecimientos enviar algunos cuerpos de línea a las fronteras del Oriente y del Sudeste.  

This grandiose plan evaporated at the outbreak of World War I. The army remained a small force (approximately 2900 officers and men) used for internal police duty against Indians and miners.

1920-1932.

In 1920 there was another golpe and the Republican Party replaced the Liberals in power. The army was again purged of its dissident (i.e. Liberal) elements, with a corresponding decrease in efficiency. President Baptista Saavedra (1920-5) briefly set up a 'Republican Guard' to counter army influence on the politics of the nation.
At times this force was stronger and better armed than the army.\textsuperscript{167}

In 1921, Saavedra elevated Colonel Hans Kundt to the rank of General and handed him the post of Commander-in-Chief of the Bolivian Armed Forces. Kundt had headed the original German military mission of 1911-4, before returning to his home country to fight in the Great War. While commanding various units on the eastern front he rose to the rank of Brigadier-General. In 1919 he returned to Bolivia, became a citizen, and went into private business. Kundt was given command of Bolivia's forces because Saavedra trusted few of his high-ranking officers.\textsuperscript{168}

During the 1920's the army gradually gained a greater say in the political affairs of Bolivia.\textsuperscript{169} As Dunkerley states, "Saavedra became further dependant upon the direct political support of the army and particularly Kundt."\textsuperscript{170} Bellman Velardé notes, "El general Kundt, hombre de su confianza, le propuso el nombre de Siles . . .", and that Saavedra, " . . . cedió a Kundt y accedió al nombre de Siles."\textsuperscript{171} Nevertheless, the army remained a loyal partner of the Republican Party prior to 1930, and did not overtly interfere in Bolivian politics. Dunkerley believes the army could have taken power in 1925, when Saavedra's term ended, but that instead it supported the most viable candidate. In
1926, the army pledged its loyalty to President Hernando Siles (who remained in office to 1930). In turn, Siles was able to appease the major factions within the military after the departure of Kundt to Germany.\(^{172}\)

Successive Bolivian governments during the 1920's established goals for the military. In the Chaco the army continued its exploration and expansion to the south and east. Initially the fortines were built farther and farther down the Pilcomayo and Paraguay rivers, as the army explorers followed the two natural communication routes. The trackless and unknown Chaco heartland was ignored for the time being.

The second phase of Bolivian fortin construction occurred in the midst of the 1922-3 Paraguayan civil war. The third phase occurred during the Siles presidency, after the Sorpresa (1927) and Vanguardia (1928) incidents with Paraguay (Map 11).

In late 1926 Bolivia purchased a large quantity of arms from Vickers, Ltd., of London, sufficient to re-equip the army totally with modern weapons, including armoured fighting vehicles and aircraft. The approximately £1,800,000 required to pay for the acquisitions was siphoned off from the 1927 Dillon, Read loan (Table 10).\(^{173}\) Fellmann Velarde suggests the weapons were bought in the wake of the clash at Sorpresa\(^{174}\) (Chapter II), but in fact the deal had
Nevertheless, before 1928 Siles and his military advisors were more concerned with a tense situation on Bolivia's border with Peru (over frontier demarcations in the Madre de Dios region) and with a deterioration of relations with Chile (as a result of Bolivia's exclusion from the final Tacna-Arica settlement). Siles' presidential acceptance speech in 1926 had mentioned the possibility of renewed conflict with Chile, Peru, and Paraguay.

The military's role in the escalation of tensions in the Chaco in the two years prior to the outbreak of war still remains confused. What is known for certain is that Siles, and his successor Daniel Salamanca, began a substantial military push in the Chaco. A considerable number of fortines were built in 1928-9 and 1931-2 (Table 8), along a line extending from just above Bahia Negra in the north, to the Esteros de Patino in the south. A major Bolivian attack against Paraguay in January 1930 was averted only when Paraguay intercepted and published orders outlining Bolivian military moves. Fellmann Velarde states that Siles knew nothing of the attack until Paraguay released the documents. After 1930, however, cuts in the overall military budget forced reductions in the size of forces stationed in the Chaco.
In 1930 Siles tried to prolong his term of office. The army (minus Kundt and several other high ranking officers) immediately stepped in, arrested Siles and the other persons involved, formed a Military Junta, and established a civilian coalition party to elect a new leader. In 1931 Daniel Salamanca was proclaimed president, and the army quickly relinquished its rule.  

Siles' government, in 1929, ordered the three Comte AC-3 heavy bombers from Switzerland. During its period of rule, the military neither bought weapons nor dramatically expanded its presence in the Chaco. Salamanca's government, in June 1932, requisitioned for Bolivia's Cuerpo de Aviación the entire transport fleet of Lloyd Aéreo Boliviano, including four Junkers F 13Ls, three Junkers W 34s, and three Junkers Ju 52/3m heavy transports; the latter had been bought just months before the outbreak of war. No new fortines were built during military rule (see Table 8).

One small problem remains. The relationship between Bolivia's leading politicians, Lloyd Aéreo Boliviano (begun, as stated above, by two German-born Bolivians), and the military has never been clarified. It is possible that General Kundt, when he travelled to Germany in 1926 and 1929,
arranged the procurement of the W 34s and Ju 52-3ms for the airline. The Bolivian aircraft came with fittings for bomb racks, and machine guns.\textsuperscript{182}

The actions of the last two Bolivia presidents prior to the Chaco War bear more responsibility for the initiation of the war than the growing confidence of the army; they will be discussed more fully in the section entitled "Daniel Salamanca".\textsuperscript{183} The army still looked to the Bolivian president for direction. More importantly, the army had split into a number of factions, each scrambling for political power. This internal squabbling severely weakened military efforts on Bolivia's frontiers.

\textit{Merchants of Death}

Proponents of the 'Merchants of Death' theory maintain that international arms merchants and their agents sought to create conditions suitable for a war in the Chaco in order to sell more weapons to both sides.

\ldots they have made technically possible certain wars (notably in South America) plans for which might otherwise have been abandoned.\ldots \textsuperscript{184}

Bolivia and Paraguay had begun stockpiling weapons in 1925, using suppliers in Europe and North America (Vickers, Schneider, Krupp, Curtiss-Wright, DuPont, I.C.I., Eokker, and a host of smaller firms). A number of these firms sold weapons to both sides in the 1920's and during the Chaco
War: Vickers and Fokker are included among the latter, and several others probably sold equipment through intermediaries.

The 'Merchants of Death' prolonged the Chaco War—it is doubtful if either Paraguay or Bolivia could have sustained the war past its first year without the magnanimous efforts of numerous nations eager to get around the informal League of Nations arms embargo. As an example, the Czechoslovakian government provided the end-use documents needed by its Zbrojovka Brno National Enterprise factory to export small arms to Bolivia, from 1932 to 1934, and the French aircraft firm of Potez probably helped Paraguay to obtain seven Potez 25's from the government of Estonia in 1933.

The 'Arms Merchants' were willing servants of Bolivia and Paraguay. This conclusion clearly emerges from the documents produced by the United States Senate Special Committee Investigating the Munitions Industry of 1934-6—commonly known as the Nye Committee from the name of the senator chairing the investigation, Gerald Nye.

The Nye Committee spent two years exploring the complexities of international arms sales and produced approximately 15,000 pages of testimony and documentation.
What did it find? In Bolivia the Controller-General, López, was a silent partner in Webb & Ashton (an import firm run by two British citizens and based in La Paz). Webb and Ashton was, in turn, the Bolivian agent for Curtiss-Wright, which was then in the process of selling a large number of aircraft to Bolivia. The López-Webb-Ashton triumvirate was opposed by Generals Kundt and Bilbóa, who supported United Aircraft. There is no incriminating evidence which shows that the arms manufacturers had pushed either Paraguay or Bolivia into war. The members of the committee were scathing in their contempt for the practices of the armaments industry, but their final report attaches no blame for initiating any of the conflicts raging at the time.

More importantly, historians have failed to establish rigid criteria on which to base their indictment of the 'Merchants of Death' as the factor responsible for the Chaco War. The arms manufacturers can only be guilty if it can be shown that their efforts to provide arms to Paraguay and Bolivia went beyond what either nation wanted, that the arms firms provided the funds to buy those weapons, and that the firms supplied the reasons for buying those weapons. Neither in the Nye Committee nor anywhere else have investigators found all three conditions present in the Chaco dispute.

Much of the criticism of the arms merchants grew out
of the 1930's animus against the indiscriminate selling of weapons by a small, but very powerful, arms manufacturing group--aided by politicians, bankers, and other interest groups--to any nation. The impassioned milieu in which the works deploiring the activities of the 'Merchants of Death' were written does not negate those writers' criticisms. Nevertheless, historians should be sceptical of the evidence as presented; unfortunately, it is too distorted, sensationalistic, and general to be taken seriously as an indictment of the arms merchants in the Chaco War.190

One quote from a letter written by a manager in a small arms firms to one of his South American-based agents, given as evidence in the Nye Committee investigation strengthens the conclusion that the 'Merchants of Death' probably did not initiate the Chaco War.

"I am still of the opinion that before these two comic opera wars [Chaco and Leticia--the latter between Peru and Columbia] finish in the north and the south that practically all of South America will be involved--so watch your step and play your cards accordingly."191

1929 Depression

Proponents of this theory believe:

The cause of the war . . . must be found first in the complex political conflict within Bolivia and the strains caused by the Great Depression on a fragile political system . . .193
Paraguay was not greatly affected by unstable world economic conditions prior to 1935, but in Bolivia three factors are important: Bolivia's almost total dependance on one export product, tin, whose value was controlled by the fluctuations of an international market; the infusion between 1908 and 1932 of a large amount of American capital in the form of loans and investments; and the impact of a severe depression in 1929.\textsuperscript{193}

In 1900, tin replaced silver as the main mineral export in Bolivia; by the 1920's duties on tin exports provided over seventy percent of government revenues (Table 9). The 1929 Depression struck this industry hard, forcing cutbacks in production, and--as a consequence--a considerable reduction in government revenues.\textsuperscript{194}

The production of tin had increased, in part, because Bolivia's railway network, built under the Conservative regime, had greatly improved. These improvements occurred because, beginning in 1908, banks in France, Great Britain, and--most importantly--the United States had made large loans to Bolivia (Table 10). In 1925, "Bolivia had already hypothecated eighty percent of the country's revenues; over forty-six percent of the revenues for that year were required for the service of the national debt."\textsuperscript{195} By 1926 Bolivia owed American banks approximately $40,000,000. Further loans
totalling $56,000,000 were contracted for in 1927, 1928, and 1932 and the country was having great difficulty making any loan repayments.\textsuperscript{196}

The critical economic situation in Bolivia after 1931 forced the government to take drastic steps to reduce official expenditures.\textsuperscript{197} In an effort to offset these unpopular actions, there is some evidence that the government pursued several external foreign relations policies, one of which included further military expansion in the Chaco at the expense of Paraguay.

In reality, however, the depression only aggravated a critical situation and created a more favourable environment for those individuals who argued that war in the Chaco was necessary.

**Daniel Salamanca**

A number of writers believe that President Daniel Salamanca was responsible for starting the Chaco War. One American historian states that because of the failure in 1931 of Salamanca's domestic economic policies to cope with the Great Depression:

\ldots Salamanca began to give more and more of his attention to the Chaco border question, which he saw as easily soluble with firm righteous stands \ldots

He built up the army \ldots at the expense of every other government service. He also pushed the army into an ever more expansive \ldots program in the Chaco.

\ldots at this point Salamanca decided to break with
Foreign historians believe Salamanca led his country into war; Paraguayan writers mention the "Megalomanía trágica del señor Salamanca"; and Bolivians are split over the question of Salamanca’s guilt. Fellmann Velarde wrote that Salamanca allowed the military to escalate minor skirmishes in 1932 beyond what had occurred previously, and Porfirio Díaz Machcaco states, “El advenimiento de Salamanca al poder impone a la nación un trágico y doctro destino a partir de 1932.” Salamanca’s biographer, David Alvésteguhi, on the other hand, defends his friend.

What are the facts? President Daniel Salamanca’s domestic economic policies aggravated the impact of the 1929 Depression on Bolivia. The result was extreme political and public opposition to his domestic economic policies. To retain any semblance of his once-great popularity, Salamanca assumed a more hostile stance against Paraguay in the struggle to determine ownership of the Chaco. Eventually, in June 1932, Salamanca allowed a minor clash (very similar to unknown numbers of previous ones) to escalate beyond the normal diplomatic recriminations and into full-scale military mobilization.

Ultimately, Salamanca must accept the blame for causing the war to occur in 1932, despite his own
statements to the contrary. "También debo afirmar que no existía en el Gobierno ningún deseo de provocar la guerra." Nevertheless, his actions in 1931-2 were only a continuation of policies begun by the previous Bolivian president, Hernando Siles, who, as Galarza stated, kept the political and public opposition quiet about domestic policy by emphasizing a very strong foreign policy. In 1928 and 1930 Siles called out the reserves against Paraguay. He had also stimulated extensive military expansion in the Chaco, with new fortines, roads, communications systems, and so forth.

Foreign Imperialism

Historians who hold this theory focus their attention on the fact that the many foreign firms in the important areas of mining, railway construction, and loans (oil will be discussed separately, in Chapter IV) were able to manipulate Bolivia's economy for their ends. They conclude that the foreign firms responded to declining economic conditions in Bolivia by stimulating war.

Attacks on 'Foreign Imperialism' as a factor in the Chaco War have come from three sources. Bolivian historians cried 'Imperialism'--after Bolivia had lost the war--and suggested that American (and other foreign) companies created a situation that forced Bolivia to fight a war so
the country could pay off American financial obligations. Paraguayan authors, looking suspiciously at American resource-based investments in Bolivia, have concurred with this analysis. Pedro Ciancio talked of the "... intereses del capitalismo ..." Foreign authors have also suggested that foreign interests may have controlled the politics in Bolivia. "Bolivia, controlled by American capital, wants an outlet to the sea for her oil and tin." I. Korabelleva accuses a group which he identifies as foreign investors aligned with the local bourgeoisie of some complicity for the Chaco War, and concludes that U.S. 'Monopolies' used the Chaco War to increase their economic dominance of Bolivia.

Substantial Chilean and British investments in minerals, rail, and other major industries dated from before the turn of the century. In the 1920's, attracted by low labour costs and encouraged by the advice of the U.S. State Department, American companies began to invest heavily in Bolivia. By 1931 American capital controlled much of Bolivia's export production (in large part because Simon Patiño, the largest tin producer in Bolivia and owner of many other companies there and abroad, registered his enormous holdings in Delaware in 1924). American investments totalled more than $100,000,000.
Bolivian nationalists have focussed on two major items. One is the concentration of major Bolivian industries in American hands. The other is the conditions American banks attached to their Bolivian loans, which also caused great controversy. For instance, the terms of the 1922 loan stated that the American lending institution would receive its payments out of government revenues first; to ensure this, control over the collection of taxes and its disbursement was vested in a three man board—two of which were appointed by the American bank.

Nevertheless, there is no direct evidence to indicate that foreign concerns with large investments in Bolivia pushed the country to war. "Foreign" (i.e. "American") "Imperialism" had been a catch-phrase for every possible negative situation, but for the Chaco War the evidence for imperialist complicity remains slight. Although some important aspects are poorly documented, American companies' actions in Bolivia seems only to have heightened tensions in a nation already on the brink of war. The actions of Standard Oil from 1930 to 1935, discussed below in Chapter IV, provide evidence for this conclusion.

**Argentine Links to Paraguay**

This theory—a sub-theme of the Foreign Imperialism thesis—states that Argentina was behind Paraguay's
activities in the Chaco, to the detriment of Bolivia;
ultimately Argentina escalated the diplomatic dispute into
war, presumably to gain control of Bolivia's oil production
which was about to compete for export markets against
Argentina's oil production.

Justo Rodas Equino, a Bolivian historian, contends
that Argentina was directly involved in many facets of
Paraguayan life, including its major industries. 216
Fellmann Velarde notes that in 1927 ex-Argentine Chancellor
Zevallos owned 187,000 hectares in the Paraguayan
controlled sector of the Chaco and that El Banco del Río
de la Plata, together with the Banco Inglés del Río de la
Plata, had $540 million (gold, not paper, pesos) invested
in 3.5 million hectares of land, also in the Chaco. 217
Fellmann Velarde further contends that President Saavedra
(1921-5) tried to counter this Argentine influence in
Paraguay by making Puerto Suárez a free port; Saavedra hoped
to gain Brazil as an ally to offset any Argentine-Paraguayan
alliance. A number of foreign authors also believed that
Argentina was partly behind Paraguay's efforts in the Chaco.
"Paraguay, controlled by Argentina (i.e. ultimately English) capital, wants to prevent [Bolivia from conquering all the Chaco]." 218

War of the Triple Alliance

Argentine interest in Paraguay began as early as 1811, but was strongest after the War of the Triple Alliance. Mention has been made (Chapter II) of Argentina's attempts to acquire the Chaco at this time, its eventual diplomatic settlement with Paraguay over war debts, and the large numbers of Argentine investors in lands in the Chaco and in Paraguay proper. By 1932, Argentina was Paraguay's largest trading partner, with respect to both to exports and imports (Table II), and seems to have exerted a disproportionate external influence on all areas of Paraguayan life.

During the Chaco War Argentina seems to have supplied Paraguay with arms and other aid, in violation of international neutrality and embargo agreements. Some of these acts have been documented by Bolivian sources—and occasionally admitted by Paraguayan officials. 219 Argentina's relations with Bolivia in the late 1920's in regard to the transport of oil from Standard Oil fields (discussed more fully in Chapter IV) suggests that Argentina may have been a better friend to Paraguay.
Nonetheless, Argentina did not always support Paraguay against Bolivia. In 1932, in the first month of the war, Argentina interned a Paraguayan military aircraft which inadvertently strayed into Argentine airspace. In 1933, Argentina refused an urgent request to supply ten Bristol F.2B aircraft to Paraguay's Fuerzas Aéreas Nacionales.

Contrary to belief, Argentina had perhaps as great an interest in Bolivia. In 1894, Argentina and Bolivia signed the Icházú-Costa Protocol. This had provisions for a joint study of rail links between the two countries. In 1907 the Villazón-Zahallos Protocol reiterated these concerns. Horacio Carrillo, Argentina's long time (approximately twenty years— he retired circa 1912) Minister Plenipotentiary to Bolivia, showed great interest in some of Bolivia's resources, wrote a book on the subject, and was one of the co-authors of the 1922 Carrillo-Gutiérrez Railway Convention, unfortunately not ratified by the Bolivian government.

Prior to 1920, the owners of Bolivia's southern mines, which had been left out of Bolivia's rail network, held some hopes Argentina would extend its network northward into Bolivia. The impetus for the extension came from José Avelino Aramayo, head of one of the largest mining
corporations in Bolivia and an individual with links to government (Eliodoro Villazón, Minister of Foreign Relations under the first Montes presidency, the Bolivian diplomat involved in the Villazón-Zaballos protocol mentioned above, and president of Bolivia from 1909 to 1913, was a manager of one of his mines).

Aramayo, el principal interesado en superar esa desventaja, obtuvo del gobierno de Buenos Aires, la construcción del tramo faltante, e hizo que Villazón firmara el protocolo ratificando la gestión.

After Bolivia nationalized Standard Oil's Bolivian properties in 1937 (see Chapter IV), Argentina quickly came to an agreement with Bolivia to provide the latter with funding to help develop its oil industry and to improve the transportation network to move the crude oil to market. (This agreement was the result of discussions that had begun before the outbreak of full-scale hostilities.) In 1944 Argentina completed a rail line to Pocitos, just south of the Bolivian town of Yacuiba; in 1957 Santa Cruz was joined to the network. For the two decades following the Chaco War, Argentina would buy a considerable percentage of Bolivian oil production.

There is insufficient evidence, at this point, to be certain that Argentine links with Paraguay had any causal influence on the start of the Chaco War. No historian thus provided documented evidence of Argentina's complicity
in creating the conditions which led to the war. In addition, Argentina's diplomatic efforts were, on many occasions, the basis for international mediation between Bolivia and Paraguay. An Argentine diplomat, Carlos Saavedra Lamas, would receive the 1939 Nobel Peace Prize for his efforts to end the dispute.777 These activities make it unlikely that Argentina created the conflict between the two nations.
CHAPTER IV

A CIRCUMSTANTIAL CASE:

THE EARLY DISCOVERY OF OIL IN BOLIVIA

Analysis

None of the eight factors discussed in Chapter III can be shown to be directly responsible for the chain of events which culminated in the Chaco War. Nevertheless, the analysis presented in Chapter III, coupled with the discussion on protocols in Chapter II, does provide suggestive evidence that the early discovery and exploitation of oil in Bolivia was responsible for the initiation of the Chaco War.

Prior to 1913, it was Bolivia which initiated all diplomatic discussions with Paraguay for a settlement of the Chaco dispute. Bolivia accepted the terms of the 1879 and 1887 protocols, both of which Paraguay rejected, and the country remained strongly in favour of a final solution after 1887, despite Paraguay's obvious intransigence. Until 1913 Paraguay remained opposed to settlement (despite the country's acceptance of the principle of diplomatic negotiations) because of the importance of the Chaco lands.
to its economy. The Paraguayans obviously realized that Bolivia's political centres were a considerable distance from the Chaco; the Bolivians would find it difficult to counter Paraguay's claims in that area.

After 1907, Paraguay was forced to acknowledge the need for a willingness on both sides to find a solution by Bolivia's growing military presence in the settlement of the Chaco. In 1914, Bolivia claimed *Uti Possidetis de Jure* status. In 1918, Paraguay offered Bolivia land for a port on the Paraguay River (presumably below Bahla Negra), but Bolivia rejected this as insufficient.

Until 1879 there had been only a minute Bolivian interest in the Chaco; after 1918 Bolivia rejected Paraguayan offers to provide a port south of Bahla Negra. Leslie Rout concurs with the view that Bolivia rewrote the terms of the diplomatic dispute; he believes serious changes in the terms of the Bolivia-Paraguay Chaco dispute occurred after 1915. In fact, changes in the Bolivian-Paraguayan relationship occurred between the 1907 protocol (which Manley Hudson believes nearly settled the dispute) and that of 1913. In 1906 there had been major oil discoveries along the fringes of the Bolivian Chaco. The beginnings of Bolivian military and civilian aggression in the Chaco occurred around 1907.
By this time [1900] the Chaco dispute had taken on all the characteristics that prevailed until the outbreak of war in 1932. Warren is correct in assuming that the conditions, which directly gave rise to war arose much earlier than is generally believed but, he is only partly correct in assuming that all the elements responsible for the Chaco War were in place by 1900. Historians have generally focussed on a number of factors which became highly visible in the 1920's; however, it is more likely that the events which led to conflict in 1932 began relatively insignificantly in the decades prior to this.

Ningun elemento ha sido motivo de tanta polémica y de tantas opiniones encontradas ante, durante y después de la guerra [del Chaco] como el petróleo.

These words, written in 1922, echo the thoughts of the Bolivian Minister of Finance and Industry in a memorandum given by to the National Congress in 1921. "Al aparecer en Bolivia esta nueva fuente de riqueza, no conocida antes en la técnica de su explotación..."

Historians have discussed the significance of oil to the Chaco dispute since the decades before the Chaco War. The debate between those who believe oil was important, and
those who do not, has continued to the present day. In the
last few years several Bolivian books on the significance of
oil have appeared. These new writers have developed their
themes based upon works first published in the 1920's and
1930's. In addition, articles discussing oil in Bolivia
continue to appear at regular, if infrequent, intervals.

These historians propose that the development of oil in
Bolivia in the 1920's was the impetus for further Bolivian
military expansion, and that this expansion eventually
collided with Paraguay's economic development of the eastern
limits of the Chaco.

Previous Theories

Historians have split the all-encompassing theory
into a number of themes. The major rubrics are: Foreign
Imperialism—the actions of Standard Oil; Control of Chaco
Oil—the fight between Standard Oil of Bolivia and Royal
Dutch Shell based in Paraguay; and the Search For a Port
For the Export of Oil.

The general manifestations of Foreign Imperialism have
been dealt with briefly in Chapter III. Its specific
relationship to the oil question is at issue here. According
to this theory, Bolivia was forced to fight Paraguay so that
large, unnamed, foreign oil companies could protect their
investments and benefit from the valuable resources to be
found in the Chaco. The argument that foreign oil companies created the situation in the Chaco for their own gain came originally from the Bolivian left, from articles published after the war. "... the Bolivian left had, after the defeat, taken up the story apparently begun in Paraguay that Standard Oil had somehow forced Bolivia to go to war with Paraguay in order to secure oil concession areas in the Chaco."

Proponents of the Standard Oil theory, a more specific variant of the theory expressed above, believed that Standard Oil was behind Bolivia's efforts to expand in the Chaco. This belief stems from the company's efforts to develop oil before and during the war. Seiferheld notes, 

"...la Standard Oil en Bolivia abrieron perspectivas insospechadas para el territorio y motorizaron la penetración boliviana para ocupar, con presencia militar..."  

The Struggle for Oil theory is based on the belief that Standard Oil and Royal Dutch Shell forced Bolivia and Paraguay to fight a senseless war at the end of which the company supporting the victorious nation would gain control of the lucrative oil fields then believed to exist in the Chaco. One Bolivian writer expresses his belief and anger thus:
de 1932 a 1935, una nueva guerra internacional fraguada esta vez por los intereses de la competencia petrolera entre grandes empresas norteamericanas y británicas sobre el detonante de un antiguo litigio de fronteras . . . entre Bolivia y Paraguay . . . 243

Some Bolivian authors have simplified the struggle. Fellmann Velarde blames Royal Dutch Shell, claiming this company was behind Paraguay's military activities in the Chaco in 1927-8 which concealed an effort to acquire Bolivia's oil lands. 244 The presumption of a struggle between Standard and Royal Dutch is also found in Paraguayan literature. Elio Colle, a Paraguayan historian, believes, "los factores contribuyentes a provocar el estallido de la guerra por el Chaco Boreal emergen directamente de los enconadas luchas interimperialistas sostenidas por la Standard Oil y la Royal Dutch . . ." 245 The fight for control of oil also has been expressed by foreign authors. A 1934 editorial in the New Republic (an United States publication) suggests, "the mad competition [for oil] has embroiled Bolivia." 246

The Search for a Port for the Export of Oil is another popular theme for historians. "This war was initiated by Bolivia with the objective, among others, of securing access to the navigable Paraguay River in order to develop its oil reserves." 247

These theories lack credibility. The authors have
not agreed on a causal chain of events leading from the initiating factor--oil-- to the Chaco War. The evidence they deploy is contradictory and often ignores the political and economic circumstances. For instance, Rout has pointed out that although Shell had the contract to explore Paraguayan lands for oil, the company was more likely to favour Bolivia because oil fields could be found there and not in Paraguay. Seiferheld states that Standard's role has been greatly exaggerated in the years since the Chaco War, and quotes two important sources, J. Natalicio González and Alfonso Baldrich (contemporary writers with an extensive knowledge of the oil industry in Bolivia), in support of this belief.

I suspect strongly that many of the Bolivian author's beliefs concerning Standard Oil's actions from 1925 to 1935, stem from accusations published in the Argentine press beginning in the 1920's. The Argentine press, in turn, probably followed the lead of Argentine politicians, who, after the Chaco War, were trying to pry control of Bolivia's oil deposits away from Standard Oil and over to Argentina. (See Chapter III--Argentine Links to Paraguay).

Arguments over which aspect of the oil question caused the war have been interspersed with disagreements as to
whether oil even existed in the Chaco. López claims on one hand:

Ultimas investigaciones hacen ver que todo el territorio paraguayo es esencialmente petrolífero, especialmente la capital Asunción y cercanías, y según el decir de técnicos, esta ciudad está nadando sobre petróleo.251

He continues that the geological structure of Paraguay was favourable for oil fields. Kain, on the other hand disagrees. He noted (in 1935) that "No petroleum . . . has been discovered in the Chaco Boreal, nor is it expected that any will be found, in view of geologists' reports."252 Kain's conclusions have been substantiated by drilling done after the Chaco War.

The explorations of the last thirty years would seem to have confirmed the earlier verdict that petroleum deposits of commercial value do not exist in that part of the Chaco held by Paraguay as of June 14, 1935 . . . 253

My conviction remains that this was not a war created in the 1920's by oil interests determined to gain control of the Chaco oil deposits and geopolitics in Bolivia. It is possible, however, that some aspects of the oil controversy during that period influenced the territorial ambitions of both Paraguay and Bolivia.

At present, the role of oil in the escalation of the Chaco dispute is sadly misunderstood; a critical analysis of the facts is lacking. I should like to begin to rectify
this with a brief overview of the search and development of oil in the World, in Latin America, and on the periphery of the Chaco.

**History**

**World**

Surface oil seepages are found in a number of regions in the world including the United States, the Near East, and Bolivia; many were mined in pre-historic times. The first commercial oil production began in the United States—in Pennsylvania—in 1859. Over the next one hundred years the United States would dominate the production of crude oil and the refining process for its byproducts.

In 1870 Standard Oil was formed, the result of a merger of several refineries and marketing agencies. Within a decade the company had become the largest corporation in the world, and controlled most of the global oil trade. Standard's hold over the market would only be broken with the discovery of oil in Baku, Russia, in the 1870's, successful Dutch efforts to discover oil in the Dutch East Indies in the 1890's, and the United States government's prosecution of Standard Oil for violation of anti-trust laws.

In 1911 Standard Oil was split into a number of smaller, independent components. The largest unit, Standard Oil of New Jersey, received little oil reserves in the United
States, but a significant percentage of the world refining capacity. The company's lack of oil reserves would play an important role in its development of oil sources in Bolivia.255

After 1900 other valuable oil sources were developed. These included fields in Iraq, Iran, Burma, Mexico, Argentina, Venezuela, and new sources in the United States. The latter included finds in Oklahoma in 1903 and Texas in the 1920's.256

The search for oil in all corners of the earth intensified after the merger of Shell Oil and Royal Dutch (to form Royal Dutch Shell) in 1911. This new corporation, which rivalled Standard in size, brought an aggressive attitude into the oil industry and put pressure on all other oil companies to find new, rich sources of oil.257

Latin America to 1932

Prior to 1900, Latin America was seen as a poor market for oil; development of the areas was inhibited by a lack of transportation and tax problems.258 Peru's reserves were discovered in the 1870's, but large scale drilling did not commence there before 1905. Mexican oil fields were not exploited until 1910, and Venezuelan oil occurred even later, in 1913.259
Foreign firms began an intensive search for oil in Latin America after 1900 because of the increase in world demand for oil. This demand coincided with the introduction and proliferation of the internal combustion engine. In 1900 world oil production was 149.1 million barrels; in 1912 it had increased to 352.4 million barrels; by 1924 1,014 million barrels were extracted from the ground. In 1920 oil experts estimated Latin America contained one third of the world's oil reserves.

Standard Oil established a Brazilian subsidiary in 1898. In the next decade the company added affiliates in Argentina and the Caribbean, and agents in most other countries.

Bolivia to 1937

1500-1880.

The discovery of oil in Bolivia predates the Spanish conquest. Oil seepages along the eastern slope of the Andes Mountains were often recorded by the earliest Spanish explorers, and must have been known, and possibly utilized, by the earliest inhabitants of South America. The Spanish first mined these open pools in the sixteenth century. On 9 January 1867, Bolivia's first oil concession, in the Province of Salinas, Department of Tarija was let to two German citizens, Francisco Hokst
and Eduardo Harres.\textsuperscript{264} (Table 12 provides a nearly complete list of all official Bolivian oil concessions, 1867-1913, excluding the earliest period.) The first oil deposits discovered in Latin America (presumably aside from open pools) in occurred in 1875 in the Department of Santa Cruz.\textsuperscript{265}

1880-1912.

Throughout the 1880's and into the 1890's national and foreign geologists explored the Bolivian Oriente extensively looking for signs of oil.\textsuperscript{266} Leaders in exploration included Ernesto Reyes in 1896, and later, Major Leonardo Olmos and V. Moisés Blacut. Reyes and Blacut would be very active in oil concessions in the decades prior to 1920 (Table 12).\textsuperscript{267} Other important explorers included Angel Ibanez, Florián Pareja, and Antonio María Velásco.\textsuperscript{268} Initial finds occurred in the Departments of La Paz, Santa Cruz (around the Grande River), and Beni (near the border with Brazil).\textsuperscript{269} In 1895 oil was also discovered near the Azero River in the Department of Chuquisaca (Map 12).\textsuperscript{270}

Once oil was discovered, the government, eager to exploit the new product, quickly moved to allow national companies and individual entrepreneurs huge land concessions under generous terms. Concessions were, at first arranged under the mining laws of 1880. In 1905 the terms of these
laws were relaxed to permit a better return on investments and, hopefully, a greater exploitation of the riches.\textsuperscript{271} Large numbers of concessions were let by Bolivia.\textsuperscript{272}

On 15 November 1911 the government again reformed its concession laws; these allowed a number of large Bolivian syndicates to buy tracts of potential oil-bearing lands.\textsuperscript{273} Unfortunately, these government efforts failed; Bolivian capitalists lacked sufficient funds to develop oil as a viable domestic or export product. The only serious Bolivian attempt, at this time, to develop producing oil fields was led by Luis Lavadenza--a Cruceño\textsuperscript{274}--who organized the Sindicato de Oriente Boliviano, in 1912. On 11 September 1915 a concerned government once again redrew its laws to restrict the size of oil concessions and reduce the length of time they could held before development must begin. These changes occurred primarily because speculation on the oil-bearing lands, rather than serious development, had occurred.\textsuperscript{275}

1912-16. Lavadenza completed an initial survey of his concession but shortages of funds forced him to seek foreign investment to keep the project alive. He interested Percival Farguhar (an American entrepreneur with multiple economic interests in several areas of South America) in
the project. Farquhar's syndicate drilled two wells in Santa Cruz and discovered a rich oil field, but his company collapsed in 1914, the result of overextension throughout South America.276

Lavadenz then approached a Royal Dutch Shell subsidiary, Buttafje Petroleum Maatschapy277, to help develop the field. This company also drilled exploratory wells and found oil, but then cancelled further operations after Argentina rejected an application that would have allowed the company to move the crude oil by rail to Buenos Aires. In 1916 Lavadenz formed a Chilean-Bolivian company, the Chileans providing the majority of capital.278

1916-20.

On 12 December 1916 the Bolivian government again re-organized its chaotic concession laws in a further attempt to stop speculation on the three million hectares of oil concessions then being leased.279 Heavier taxation was introduced, regulations governing drilling tightened, leases circumscribed, and very restrictive time limits for the development of production were introduced. Chilean capitalists provided the majority of the new funding for exploration and development, during this period.280 Nevertheless, neither their efforts nor those of Bolivian or British oil interests were sufficient to develop any
production.

In Bolivia . . . the story was similar, the capital requirements were too great and the risks were excessive to tempt local capital seriously. 281

1920-37.

On 24 February 1920283, in the last months before the fall of the Liberal Party, the Bolivian government again offered large tracts of potential oil-bearing lands to national and foreign companies (Table 12), in an effort to increase investment in oil and ultimately to induce production.

There was a new influx of foreign investors, including the Richard Levering Co. (with leases in Chuquisaca, Tarija, and Santa Cruz), and William and Spruille Braden. The Bradens acquired the concessions owned by the Chile-Lavadenz consortium, along with a number of smaller units. 283 In 1921 Levering and the Bradens were bought out by Standard Oil. 284 Thus began the modern era of oil exploration and exploitation in Bolivia.

To prevent such massive transfer sales from occurring again, on 20 June 1921, the new Republican government brought in restrictive laws governing the ownership and development of oil concessions. 285 The new government acknowledged Standard's acquisitions only after heated
debates in Congress. 286

Standard first became interested in Bolivia after the Great War; its efforts were aided by officials of the U.S. State Department. 287 World War I, declining production at a number of major United States fields, and higher world crude prices, had created a crisis in the U.S. oil industry. 288 Perception of a crisis in U.S. production spread in 1919–20, 289 after release of an official government report which indicated U.S. oil reserves would only last another thirty years at current consumption levels. 290

"This undertaking was launched . . . at a time when concern over American oil supplies was beginning to become acute." 291

Standard discovered oil in Bolivia during 1924; by the following year, the company had several wells in limited production. In 1927 production averaged 71 barrels per day 292 at sites in Bermejo, Sanandita, and Camiri in the department of Tarija (Table 13), and the company was continuing exploration on the remainder of its 7,000,000 hectares located in all regions of Bolivia. 293

With the acquisition of the Levering and Braden concessions, Standard owned the richest oil deposits in Bolivia. Other important concessionaires included Jacob Backus, who had large holdings in the Departments of Beni
and La Paz,\textsuperscript{394} and the Comunidad Petróleos de Bolivia. A considerable number of much smaller entrepreneurs were scattered over many of the Departments. By 1928, oil concessions comprised 28,000,000 hectares of Bolivian land.\textsuperscript{395} Despite this large figure, only Standard succeeded in producing commercial quantities of oil.

Standard wanted to hold its Bolivian lands as future production when its other sources should begin to fail.\textsuperscript{396} This policy had serious consequences for its Bolivian operations after the company failed to develop large scale oil production. In 1933, Bolivia confiscated Standard's assets when the company refused to refine aviation gasoline for the military during the Chaco War (the company considered its refusal an attempt to remain neutral\textsuperscript{397}). Standard resumed control when Bolivian officials realized their country's technicians did not have the expertise to run the refineries.

In 1937, the Bolivian government, under extreme pressure from a large sector of the population, expropriated Standard Oil.\textsuperscript{398} This action occurred after it was learned that Standard had, during the war, shipped parts of one of its moth-balled refineries into Argentina and capped most of the oil wells.\textsuperscript{399} There were also rumours that Standard had shipped oil to Paraguay, during the war. These rumours were,
in fact, were Argentine propaganda designed to separate
the Standard Oil Company from its Bolivian oil fields.\textsuperscript{300}

Standard reduced its operations in Bolivia after
1927, in part because Argentina refused to allow oil
produced in Bolivia to be shipped on its rail lines to the
port of Buenos Aires. Standard had no other inexpensive
alternative for the movement of oil. For instance, company
officials estimated it would cost $12,000,000 to build a
pipeline from the Villa Montes region across the Chaco to
the Paraguay River. The oil could not be moved to any
Pacific port because the cost of pumping the crude oil over
the Altiplano was considered prohibitive.\textsuperscript{301}

Critical Decade

Advocates of the Foreign Imperialism, Struggle for
Control of Bolivia's Oil, and Search for a Port for the
Export of Oil theories maintain that the later surge of oil
exploration and development in Bolivia from 1921 to 1932 was
responsible for the events which led to the Chaco War. For
instance, Philip suggests that 1918 was the first year in
which serious interest was aroused in oil in Bolivia\textsuperscript{302}; Rout
believes 1919-20 was the critical date.\textsuperscript{303} As to the
suggestion that the early exploration for oil was
significant, these and other historians--Bolivian,
Paraguayan, foreign--are convinced that:
Rather than involve themselves seriously in oil development, many Latin American entrepreneurs and landowners preferred to seek speculative fortunes by taking out concession areas or using the privileges of land ownership to attract the interests of a foreign company. 104

Historians have concentrated on the most visible phenomena in Bolivia and Paraguay in an effort to determine what caused the Chaco War. "Bolivian oil interests and those of foreign investors in the Oriente ... provided a powerful incentive for the use of armed force ..." 305 Nevertheless, although Standard acted with incredible stupidity at times, there is no evidence to suggest that it, or any other oil company, was responsible for the Chaco War.

What factor or factors did then initiate the Chaco War? A tentative hypothesis can be suggested, developed from what were, to appearances, a number of unlikely coincidences present in the Department of Tarija in the south-central region of Bolivia in the first decade of this century. These coincidences include: the geopolitical nature of the Department of Tarija; governmental interest in the area--particularly an extensive military presence beginning in 1905; civilian exploration and exploitation after 1905 in the area to the west of Tarija; and the discovery of oil in the Departments of Tarija in 1898 306 and Santa Cruz in 1906. This discovery of oil led Bolivia to expand its interests
into the lower Chaco, and into eventual conflict with Paraguay.

The Department of Tarija had long remained isolated from the rest of Bolivia; the country's easternmost civilian settlements lay primarily in the north and west in the area between Cochabamba and Santa Cruz. Tarija "has remained the only Departmental capital in highland Bolivia to be without rail transport." Instead, the Department's principal links were with Argentina, to the south. In addition, before 1900 there appeared to be little growth potential in Tarija compared to its neighbouring Departments (Table 1). Tarija had no large cattle ranches or extensive agricultural production such as that found in the Department of Santa Cruz, no large scale mining operations such as those situated in the Departments on the Altiplano, and no valuable, easily extractable resources such as the rubber trees found in the Department of Beni.

Nevertheless, government expressed a significant interest in this region in the first decade of this century. In 1905, the Bolivian government established the Delegación Nacional del Gran Chaco, separating that territory from the Department of Tarija. Ostensibly the new delegation was necessary "para el servicio de colonización y explotaciones en el río Pilcomayo y territorios adyacentes."
Government interest after 1905 was made clear by a renewed military presence (i.e., fortines) in the region to the west of the Department of Tarija. Although units were also sent to Santa Cruz and Puerto Suárez, most of the fortines were concentrated in the area to the east of Tarija. In 1905 fortines were constructed at D'Orbigny and Guachalla, in 1906 at Ballivián, Esteros de Patiño, Campero, Crevaux, Murillo, and Avanzado; concurrently the towns of Yacuiba and Villa Montes were established. The army's headquarters for south-central Bolivia was in the city of Tarija. Tarija remained the most active area, militarily, in eastern Bolivia before the Chaco War, despite the regimes predilection for using the country's eastern lowlands— notably Santa Cruz—as places of exile for vocal supporters of opposition parties. Army units stationed in the east watched over the activities of these exiles.

All this military activity in the Department of Tarija after 1905 created tensions between Bolivia and Paraguay. In 1910 there was a war scare. At the end of 1912 another crisis occurred on the frontier with Paraguay:

. . . por consiguiente las relaciones diplomáticas se pusieron vidriosas y era preciso tomar medidas de carácter militar. El presidente Villazón resolvió pues, en prevision de futuros acontecimientos, enviar algunos cuerpos de línea a las fronteras del Oriente y del Sudeste . . .

Beginning in 1912-13, Bolivian military patrols began to
encroach on Paraguayan civilian settlements.\textsuperscript{314}

From 1905 to 1907 this military presence was under the guidance of Doctor Leocadio Trigo, the first National Delegate for the Territorio del Chaco and a citizen of Tarija.\textsuperscript{315} Trigo created a 140-man military unit in 1905, and spearheaded the establishment of the first fortines in the region. In 1905 he also founded the town of Villa Montes (now an important centre for the oil industry)\textsuperscript{316}; the site was chosen because it lay astride the Pilcomayo River on the route between Tarija and Santa Cruz. In 1907 he founded a village, Cuidad de Manso, a few kilometres to the east of Fortín Guachalla.\textsuperscript{317}

Trigo penetrated the Chaco by way of the Pilcomayo River; by 1907 he had explored more than halfway to the Paraguay River.\textsuperscript{318} His second expedition, which explored the length of the Pilcomayo River, included a scientist-engineer (Juan Muñoz Reyes).\textsuperscript{319}

Oil seems to have been the motive for this early civilian and government interest. The area's geological structure was such that oil pools had formed along the eastern ridges of the Andes Mountains as far south as central Argentina (Map 12).\textsuperscript{320} In 1898 there were small oil strikes in the Department of Tarija. These were followed in
1906 by major new oil discoveries in the Departments of La Paz and Santa Cruz. The Tarija fields formed part of the Santa Cruz discoveries. These discoveries stimulated further government interest.

Pando [presidente de Bolivia 1899-1904], con el fin de ordenar, de alguna manera, su explotación y reservar una participación por el Estado decretó que "las substancias inorgánicas no metálicas" - una errada definición del petróleo - quedaban dentro del derecho minero y que los pedimentos debían pagar a razón de 2 bolivianos por hectárea.322

In 1905, new laws governing the exploration and development of the resource were announced.323

Official interest extended beyond government proclamations and legislation. Luis Lavadenz (discussed above) was one of the early oil entrepreneurs pioneers in Bolivia; from possibly as early as 1900, he spent the greater part of his career trying to interest foreign companies in developing oil production in Bolivia. At the same time he was a member of the Chamber of Deputies, initially representing Chuquis (1910-18), and later Cordillera (1918-?), in the Department of Santa Cruz.324 Two of the earliest concessionaires in south-central Bolivia were Carlos Calvo (Table 12) and Adolpho Costa du Rels.325 Calvo was a member of President Montes' cabinet of 1913,326 and later ended up as a lawyer for Standard Oil.327 (Standard Oil also bought out his oil concessions in 1920.)328 Costa du Rels
became a member of Hernando Siles' cabinet in 1927.\footnote{Fellmann Velarde explains that, "la guerra ... acabó de probar de valor del petróleo hasta para unos personajes tan alejados de ella como los congresales bolivianos de aquel año."\footnote{Alcázar never divulges names, but does mention that influential individuals, connected to important politicians, acquired many of the oil concessions in Chuquisaca, in the period around 1911. He did cite the companies Sindicato del Oriente Boliviano, and Communidad Petrolifera Santa Cruz de Bolivia (the latter established in 1916 by the Chilean engineers Konig and Lanas) as having had important connections to high officials in the Bolivian government.\footnote{Nevertheless, little is known of the activities of these influential oil entrepreneurs in the exploitation of oil after 1900.}}

The early exploitation of oil is a contentious issue. Very few historians would agree that oil had any importance to the Chaco dispute prior to 1921. Nevertheless, Fellmann Velarde notes, "Su estampida [for oil concessions, 11 November 1911] constituye el primero en la cadena de acontecimientos que iban a desembocar, años más tarde, en la Guerra del Chaco."\footnote{And, of course, Fellmann Velarde's 1911 "stampede" occurred because of conditions that arose with the discovery of oil from 1898 to 1906. Marsh supports this viewpoint: "from as early as 1906,}
when the first serious interest in Bolivian oil was manifested . . . " Urioste believes that a new phase in the evolution of the Chaco War occurred in 1907--although he does not mention oil as a factor. 334

At present, there are no documents which give absolute proof that the coincidental events in the Department of Tarija beginning in 1905 were caused by the discovery of oil. The researcher, instead, is left with a problematic series of episodes which probably are connected.

The critical elements are the revival of Bolivia's military, and the discovery of oil in 1905-6, but it is possible that other factors were in play. The change in political regime in 1899, from Conservative to Liberal, with the resultant change in those who wielded political power, may have had a significant impact on military activities. It is probable that South Bolivia, including Tarija, remained a stronghold of the Conservative Party.

South-central Bolivia was effectively isolated from the Altiplano (with no rail link until 1925); historically its ties lay with Argentina. When Tarija began to generate economic activity the goods it produced were transported south. For instance, Patiño wished to ship ore, "apparently", from his southern mines through Argentina during World
War I. Trigo's activities from 1905 to 1907 may reflect a desire to move conventional (i.e. non-oil) exports south; the military status of his explorations makes this conclusion improbable, however.

Farquhar's role in Bolivia and Paraguay, before the Great War, needs to be better researched. His syndicate had extensive holdings in Brazil and Uruguay, held a considerable investment in Bolivia's largest railway (the Antofagasta and Bolivia Railway) in 1912-3, and, beginning in 1912, bought up substantial tracts of the 'Paraguayan' Chaco, perhaps five million hectares. Farquhar's Bolivian and Paraguayan holdings have never been fully assessed.
CHAPTER V

CONCLUSIONS

The Chaco War is an important historical event, not only for the two countries involved--both Bolivia's and Paraguay's future would be greatly affected by the war--but also because it involved nations and organizations on an international scale. Nevertheless, identification of the factors responsible for the Chaco War, and in particular, of the factor which initiated the events which led to war, has been hampered by the uneven quality of the research into the subject. There have been too many answers, and not enough questions and research.

In an attempt to overcome some of the limitations of the available material, this thesis was divided into two sections. The first section (Chapter III) describes eight popular theories that attempt to establish the factors responsible for the Chaco. Each warrants some consideration as a factor in the Chaco War; however, their significance has been considerably overstated.

For instance, the "crisis" that resulted from Bolivia's
loss of its ports on the Pacific Ocean during the War of the Pacific can be seen to be no crisis at all. After 1884, Bolivia continued to move its vital exports through those same ports, now in Chilean hands; the country does so today.

Similarly, the theorem that Bolivia recognized, from the time of its independence, the vulnerability of the nation's Pacific ports to foreign incursion and therefore turned to the eastern lowlands as an alternative outlet also can no longer be seriously advanced. Bolivia rarely attempted any concerted or consistent effort to develop any part of its lowlands; the development of an Altiplano rail system linked to the Pacific nearly destroyed the economic well-being of Bolivia's other regions.

The ambition of Bolivia's military is often believed to be the most important factor in the escalation of the Chaco dispute into war. Historians discuss it the army's increasing strength and political independence during the 1920's without analyzing the relationship between it and the politicians in power. In addition, the army, its efficacy hamstrung by internal politics, long remained a 'paper tiger', incapable of fighting anything stronger than militant miners.

Argentina's long-standing relationship with Paraguay, and that relationship's impact on the Chaco, is another
avenue which apparently does not lead to the truth. Argentina's ties with Paraguay were strong, and had been so for nearly fifty years by 1932, but evidence continues to emerge which suggests that Argentina also had close ties to some parts of Bolivia.

The term "Foreign Imperialism" is often a catch-all designed to place blame for failures on factors outside the national control. The activities of large American corporations, governments, and individuals in third-world regions has been subject to great controversy, and many times have been viewed with distaste, but those named have not always shown to be responsible. In Bolivia, the depredations of American economic interests aggravated a serious domestic situation and therefore may have helped create conditions critical to the Chaco War.

Standard Oil's position in Bolivia exemplifies the strengths and weaknesses of the accusation of Foreign Imperialism. Its activities in the critical period from 1921 to 1932 are not above reproach--dismantling a refinery and smuggling it out of the country during a war, or capping wells when the oil produced might have served as a decisive stimulus to the expansion of Bolivia's eastern economy, are not politically astute moves--but otherwise, the company maintained a reasonably low profile while working under
difficult political and physical conditions. More importantly, there is no proof that Standard Oil supported the Bolivian government's efforts to expand deeper into the Chaco.

The other theories mentioned in Chapter III suffer from the same flaws. The Great Depression, in a similar manner to Foreign Imperialism, only aggravated an already tense situation. President Daniel Salamanca of Bolivia was not an autonomous actor; he followed public opinion and the dictates of his party's policies against Paraguay and in some ways was maneuvered into declaring war. By the same token, it can be argued that the arms merchants were serving the dictates of their customers.

Destruction of the eight theories cited leaves few possibilities for identifying the primary factor responsible for the Chaco War. The early discovery of oil in Bolivia--rather than the later Standard Oil period--remains the most promising lead. This discovery occurred in the Department of Tarija, circa 1905. It was accompanied by a curious set of coincidences which included: strong government interest, civilian interest (including persons connected closely to the government), an expansion of the military presence in the area, and the discovery of oil in Bolivia at that time. I hypothesize that the Department of Tarija was not, in 1905,
an area worthy of this close attention unless some valuable, easily extractable resource had been discovered.

The role of oil, before the era of foreign dominance remains little known to historians, much less understood by them. Bolivia's boom or bust cycle of economic development, the development of tin and rubber, political problems, and the ongoing Tacna-Arica discussions overshadowed events occurring in the east. At the time of discovery the physical boundaries of the oil resources were not well understood; when little development occurred, political interest, and consequently public interest, declined. Nevertheless, the search for oil in the Department of Tarija, beginning in 1905, initiated Bolivian expansion in the Chaco. Ultimately it led to the Chaco War.
FOOTNOTES

1. This is shown by an analysis of publication dates of material written about the Chaco War; interest peaked during the war and then declined within a few years after the final peace treaty was signed in 1938. Since 1940 the output of publications on the Chaco War has continued at a moderate pace. The research for this subject comes from a bibliography now being assembled by the author of this thesis. There is now no bibliography of the Chaco War, but C.L. Christman, "The Chaco War: A Tentative Bibliography of its Diplomacy," *The Americas* 26 (1969-70):54-65, provides a very good partial one.


6. Pincus, *The Economy of Paraguay,* pp.85, 452-3. Pincus gives an excellent overview of the geography and climate of the region along with a description of the vegetation. He discusses the poor drainage as a major factor in the lack of agricultural development. See also Philip de Ronde, *Paraguay: a Gallant Little Nation* (New York: G.P. Putnam's Sons, 1935), p.57. De Ronde was an honourary Lieutenant-Colonel in the Paraguayan army during the war—the only American according to his statements—and he saw some action during 1933. His book is an unabashed declaration for Paraguay, but does contain some excellent descriptive geography of the Chaco. He talked of 1.5 metres of topsoil present in the Chaco. Pincus' and de Ronde's
works are offset by some historians' declarations that the Chaco had an excellent climate. The latter are incorrect.


10. Fifer, Bolivia, pp.9-10.

11. Klein, Bolivia, p.70.


15. Klein, Bolivia, pp.35-6.


17. Warren, Paraguay, p.185.


24. Fifer, Bolivia, p.182.

25. A large number of works on the War of the Pacific are available. For a more concise account, consult: Klein, Bolivia, pp.144-8. Fifer, Bolivia, pp.51-60.


29. Ibid., pp.155-8.


36. José Lavadenz, La colonización en Bolivia durante la primera centuria de su independencia (La Paz: Talleres Gráficos de la Intendencia de Guerra, 1925), p.64.
37. Ibid., p.66.


40. The status of Paraguay's railway network seems somewhat confused. Warren, Paraguay, p.283, stated Paraguay had 723 kilometres (km) of rail as of 1928; 280 km were narrow gauge and presumably located in the Chaco. De Wilde, "South American Conflicts", gave a figure of 440 km for 1933; his totals agree with Warren's only if they did not include the Chaco network. Ronald S. Kain, "Behind the Chaco War," Current History 42 (1935):471, believed that half of the mileage of Paraguay's rail system existed in the Chaco. Rout, Politics of the Chaco Peace Conference, p.42, used a figure of 420 km. Paraguay's economic conditions prior to the Chaco War are described in Warren, Paraguay, pp.280-82.


42. Vergilio Sampagnaro, Causas geográficas de la guerra del Chaco (Jena: Verlag von Wilhelm Gronau, 1935), pp.3-5. Argentine arbitration played a large role in mediation attempts in the Chaco between 1906 and 1938.


48. An enormous number of works have been written on the
Chaco War. A number are used as primary sources in the sections on Bolivia's and Paraguay's military in Chapter III. Other notable works include Zook, _Conduct of the Chaco War_, and two works from staff officers who served in the Chaco War and later became presidents of their countries. Rafael Franco, _Dos batallas de la guerra del Chaco: Gondra, Picuiba-Ypandaque_ (Buenos Aires: Editorial Yegros, 1959); David Toro R., _Mi actuación en la guerra del Chaco_ (La Paz: n.p., 1941).


50. George Eder, _Inflation and Development in Latin America: A Case History of Inflation and Stabilization in Bolivia_, (Ann Arbor: University of Michigan Press, 1968), pp.106-9. Eder does not directly attribute inflation to the onset of the Chaco War; rather he sees the Great Depression as the prime cause for the devaluation of Bolivia's currency. This is not borne out by the data expressed in Table 10; near the end of the war Bolivian currency declined precipitously, probably the result of deficit financing to pay for mobilization and military equipment. By 1937 the exchange rate was only 3.0 and this had further declined to 1.8 in 1939. Compare the latter figure to that of 1920.


55. The rail line between Antofagasta and Uyuni began as a link between the caliche and mineral deposits in the Atacama desert, and the ports on the Pacific. The extension of these lines into Bolivia in the mid-1880's represented a natural progression eastward.

56. Fifer, _Bolivia_, pp.190-1. Fifer stated that construction of this line was obstructed by the Antofagasta (Chile) and Bolivia Railway Co. which then held the monopoly for the movement of goods by rail into Bolivia. This company controlled the Arica-La Paz and Mollendo-La Paz lines.

57. Moisés Alcázar, _Abel Iturralde, el centinela del petróleo_, (La Paz: Editorial La Paz, 1944). The author
included a section on the political discussions concerning the plans to build rail lines in the east. For instance, pp.262-71 includes political debate in 1921 on the feasibility of a line to Santa Cruz.


60. Carter, Bolivia, p.22.

61. Fifer, Bolivia, pp.19-23.


63. Rout, Politics of the Peace Conference, p.42.


66. Duguid, Green Hell, p.142. Fifer, Bolivia, pp.202-5, describes Duguid's trip as an advanced scouting expedition for an ambitious English scheme to develop a large section of territory in the north-east Chaco c. Puerto Suárez. Duguid was a free-lance correspondent for two English papers; his travelling companion was Mamerto Urriolagoitia, later president of Bolivia, 1949-51.

67. Alcázar, Abel Iturralde.


69. Duguid, Green Hell. His travels were delayed on numerous occasions by overflowing rivers.


71. Carter, Bolivia, pp.21-3.


81. Fletcher, "Santa Cruz," p.27.

82. Fifer, "Bolivia's Pioneering Fringe," p.5.


also: Cleven, *Political Organization*, p.165.


88. Fletcher, "Santa Cruz", p.25.

89. Warren, *Rebirth of the Paraguayan Republic*. Warren's section on the status of river commerce on the Paraguay River is far away the best treatment of river conditions which existed prior to the Chaco War.

90. Ibid., pp.187-88

91. Ibid., p.223.


93. Kain, "Behind the Chaco War", p.472. He noted that 1000 ton ships could sail as far up the Paraguay River as Puerto Suárez.

94. League of Nations Chaco Commission, *Dispute*, p.17. The commissioners responsible for the report visited Puerto Suárez in 1933 and found the area nearly deserted. The engineer responsible for the establishment of Quijarro stated that the river at that point showed a minimum depth of two metres. Fifer, *Bolivia*, p.194.

95. League of Nations Chaco Commission, *Dispute*, p.17. Quijarro's status as a port was aided in 1903 when Brazil ceded to Bolivia under the terms of the 1903 Treaty of Petropolis four strips of land along the Paraguay River.


98. Fletcher, "Santa Cruz", p.27.


105. Kain, "Bolivia's Claustrophobia".


108. Fifer, Bolivia, p.182.

109. Arze Cuadros, La economía de Bolivia, p.343.


112. Ibid.

113. Fifer, Bolivia, p.64.


116. Fifer, Bolivia, p.66.

117. Encina, Las relaciones, pp.271-3.
118. Fifer, Bolivia, pp.72-3.


122. Klein, Political Parties, p.102.


124. Querejazu Calvo, Masamaclay, p.19.

125. Kain, "Behind the Chaco War", p.472, described Paraguay's blockage of Bolivian exploration down the Paraguay River. Fellmann Velarde, Historia de Bolivia, 3:99-100, described Paraguay's blockade of Bolivia at Esteros de Patiño.

126. Warren, Paraguay, p.298. Estigarribia also believed officials from his country were very concerned to not inflame the situation. Estigarribia, The Epic of the Chaco, pp.6-8.


129. The dates when the weapons were bought come from Ríos, La defensa del Chaco, pp.24-6. The date for the establishment of the military zones comes from: English, Armed Forces of Latin America, p.347. On the other hand, Luis Freire Esteves, El paraguayan Constitucional 1870-1920 (Buenos
Aires: G. Peña y Cía, 1921), p.267, gives the date as 6 April 1909.

130. Ríos, La defensa del Chaco, p.30.

131. Fernández, La guerra del Chaco, p.60.


133. English, Armed Forces of Latin America, p.348.


135. This lack of preparation is discussed by a number of sources. These include: Estigarribia, The Epic of the Chaco, pp.8-9; English, Armed Forces of Latin America, p.348.


137. Idem., Rebirth of a Nation, p.255


139. Dunkerley, Politics of the Bolivian Army, p.147.


143. See the introduction to Ríos, La defensa del Chaco, pp.7-17.

144. Dunkerley; Politics of the Bolivian Army, p.194.


146. Díaz Argüedas, Historia del ejército de Bolivia, p.420.

147. Pedro N. Ciancio, La guerra del Chaco (Buenos Aires: La Vanguardia, 1933).

148. This viewpoint was expressed primarily by the Bolivian left. Julio Alverado, El balance de la experiencia socialis-
Another important author is Gustavo Navarro, better known as Tristan Marof. Some foreign historians have also discussed this point. They include: Klein, "David Toro and the Establishment of 'Military Socialism' in Bolivia," Hispanic American Historical Review 45 (February 1965):31.

149. Dunkerley, Politics of the Bolivian Army, p.222.

150. Klein, Parties and Political Change, p.27.

151. Díaz Argüedas, Historia del ejército de Bolivia, p.23; Dunkerley, Politics of the Bolivian Army, p.222.

152. Dunkerley, Politics of the Bolivian Army, pp.82-4.

153. C. Blanco Galindo, Resumen de la historia militar de Bolivia (La Paz: Intendencia de Guerra, 1922), p.187. In 1900 the Liberals were also forced to send units to Acre. They fared little better; the Acre was lost during their rule. Louis A. Tambs, "Rubber, Rebels and Rio Branco: the Conquest for the Acre," Hispanic American Historical Review 46 (August 1966):254-73.


156. Dunkerley, Politics of the Bolivian Army, p.128.

157. Díaz Argüedas, Historia de ejército de Bolivia, pp.758-75.

158. Ibid., pp.761-66. See also: English, Armed Forces, p.89. English believed the Germans accomplished little during their three years.


160. Cleven, Political Organization of Bolivia, p.162.

161. Lavadenz, La colonización en Bolivia, p.8.

162. Ibid., p.62.

163. Díaz Argüedas, Historia del ejército de Bolivia, p.335.
164. Alexander, Bolivia, p.57.
166. Ibid.
168. Frederick Nunn, Yesterday's Soldiers, (Lincoln: University of Nebraska), p.333.
171. Fellmann Velarde, Historia de Bolivia, 3:137, 118.
173. Ibid., p.192. Dunkerley stated the funding for the weapons came from funds provided by the 1927 Dillon, Read Loan. On the other hand, Klein, Parties and Political Change, p.102, believed the arms purchase became possible because advanced the money. Funds from the American loan went to pay off Vickers; a contemporary writer, Ernest Galarza, "Debts, Dictatorship and Revolution in Bolivia and Peru," Foreign Policy Report 7 (May 13/31), p.106, mentioned that $5,000,000 of the 1928 loan was used for this purpose.
175. Fifer, Bolivia, pp.140-50.
ed that the airline was heavily subsidized by the Bolivian government.

182. Rather interestingly, the sights and bomb racks for these civilian Junkers W 34 aircraft turned up in a military warehouse in Villa Montes in 1933. This incident is discussed in a book by Thomas Wewege-Smith, Gran Chaco Adventure: the Thrilling and Amazing Adventures of a Bolivian Air Caballero (London: Hutchinson & Co., 1937), pp.127, 142. Wewege-Smith was a British mercenary pilot hired in 1933--on a one year contract--to fly one of the Junkers W 34s.


189. Ibid.

190. The 'Merchants of Death' theme was very popular with the public in the 1930's, and a considerable number of works on this subject were published. The more reliable, and less sensational, books included: H.C. Engelbrecht, One Hell of a Business (New York: Robert M. McBride, 1934); Philip Noel-Baker, The Private Manufacture of Armaments (London: Victor Gollancz, 1936); and W. H. Williams, Who's Who in Arms (London: Labour Research Department, 1935). The 'Merchants of Death' is a very slippery subject because so little documentation on arms transfers has survived.

191. Engelbrecht, One Hell of a Business, p.22.

192. Klein, Bolivia, p.185.

193. Max Winkler, Investments of United States Capital in Latin America (N.p., 1928), p.76; Garner, The Chaco Dispute, p.92; Marsh, pp.4-5. Paraguay's exports were barely affect-


197. Dunkerley, Politics of the Bolivian Army, p.212. These actions included cuts in military spending; Bs700,000 in 1930 and Bs2,800,000 in 1931. Despite these drastic measures the military budget as a percentage of government expenditures rose from 23.6 to 31.3.


199. Malloy, Bolivia, p.72.


201. Fellmann Velarde, Historia de Bolivia, 3:180.


208. Ciáncio, La guerra del Chaco, p.12.

(Feb. 22/33): 38.


212. Winkler, Investments, pp. 77-9; see also Marsh, Bankers in Bolivia, p. 4.

213. Marsh, Bankers in Bolivia, pp. 4-5.

214. Ibid., p. 5.


217. Fellmann Velarde, Historia de Bolivia, 3:145. A Paraguayan Gold Peso was equivalent to Argentina's Gold Peso—a legacy of the War of the Triple Alliance. In the 1920's one Argentine Gold Peso was equal to US$0.9648. Winkler, Investments, p. 138.


222. Rout, Politics of the Chaco Peace Conference, p. 54.

223. Fifer, Bolivia, pp. 185-92.


225. Fellmann Velarde, Historia de Bolivia, 3:30, 51.

226. Rout, Politics of the Chaco Peace Conference, pp. 56, 238; Fifer, Bolivia, pp. 192, 221-23.

227. Warren, Paraguay, p. 297. The argument against Argentine mediation and the country's neutral position in the dispute between Bolivia and Paraguay can also be found in Warren,
and Rout, Politics of the Chaco Peace Conference, pp.141-88. Rout's account discusses Saavedra Lamas' stalling tactics; they were an attempt to aid Paraguayan demands and Argentine influence in the area.

228. Fifer, Bolivia, p.196. The author also talked of Paraguay's fear that Bolivia would place warships on the Paraguay River and reduce Paraguay's security.


233. Warren, Rebirth of the Paraguayan Republic, p.162


236. Pedro N. López, Bolivia y el petróleo. (This can be seen in the efforts of this author to clarify Bolivia's position.

237. See the works by: Seiferheld, Economía y petróleo durante la guerra del Chaco; Sergio Almaraz, Petróleo en Bolivia (La Paz: Editorial Juventud, 1958); and F. William Gonzalez, Historia del petróleo boliviano y su defensa en la guerra del Chaco (La Paz: n.p., 1981).

238. López, Bolivia y el petróleo; Alcázar, Abel Iturralde; Harm Espejo, Bolivia en sus diversas fases.


240. Seiferheld, Economía y petróleo, pp.447-58. He discusses each theme in turn.


255. Philip, *Oil and Politics*, p. 8. Please note, however, that Carter, *Bolivia*, p. 21, suggested that oil reserves in 1971 in the Chaco were estimated at 170 million barrels.


257. Ibid., p. 111.


259. Ibid., pp. 15-19.

260. Ibid., p. 11.


269. Ibid., 3:25.


274. Parker, *Bolivians of Today*, pp. 159-60.


281. Philip, *Oil and Politics*, p. 27.


284. Almaraz, *Petróleo en Bolivia*, p.81. There is the strong suspicion that Levering and Braden were agents for Standard Oil—that company's poor reputation had precluded efforts to gain lucrative oil lands in Bolivia. Spruille Braden denies this; in his memoirs, *Diplomats and Demagogues: the Memoirs of Spruille Braden* (New Rochell: Arlington House, 1971), he claims that he and his father sold their concessions because of financial problems. They were able to sell the concession to Standard for a substantial profit.


286. Alcázar, Abel Iturralde. As an example, pp.28-9.

287. Solberg, *Oil and Nationalism in Argentina*, p.53.


289. Solberg, *Oil and Nationalism*, p.52.


292. Ibid.


297. Actions described as stupid by U.S. State Department officials.


300. Philip, *Oil and Politics*, p.196.

301. Kain, "Behind the Chaco War," p.473. In the 1960's Bolivian engineers solved the problems associated with the transfer of oil to the Pacific coast; Bolivian oil production in the lowlands can now be pumped to Arica, Chile.

302. Philip, Oil and Politics, p.193.


304. Philip, Oil and Politics, p.27.


306. López, La economía de Bolivia, p.223.


308. Fifer, Bolivia, p.191.


310. Ibid., p.177.


312. Nunn, Yesterday's Soldier, p.121.

313. Díaz Argüedas, Historia del ejército, p.335.


315. Lavadenz, La colonización en Bolivia, pp.65-6.


317. Vittone, Las fuerzas armadas paraguayas, p.177.


319. Lavadenz, La colonización en Bolivia, p.66.


322. Fellmann Velarde, Historia de Bolivia, 3:25.

323. Ibid., 3:47.

325. Fellmann Velarde, Historia de Bolivia, 3:63.
326. Ibid., 3:78.
327. Ibid., 3:103.
328. Ibid., 3:97.
330. Ibid., 3:78.
331. Alcázar, Abel Iturralde, p.52.
332. Fellmann Velarde, Historia de Bolivia, 3:63.
335. Peñaloza, Historia económica de Bolivia, 2:224.
## APPENDICES

### TABLE 1

**BOLIVIAN POPULATION: DEPARTMENTS AND CAPITALS**  
**OFFICIAL CENSUS OF 1846, 1900, 1950**

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**SOURCE:** Herbert Klein, *Bolivia*, p.297.
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(area in hectares - includes land in Paraguay proper)

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(Table 8 continued on next page)
(Table 8 continued)

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**SOURCES:** This section is compiled from a considerable number of sources. There is no one source which can be relied on to provide data for the establishment of all fortines. At this time the table is incomplete. There were considerably more fortines built in the mid-1920's and the two years prior to outbreak of full-scale war in 1932. Authors consulted included José Lavadenz, Olaf Storm, Carlos Fernández, José Fellmann Velarde, Luis Vittone, Porfirio Díaz Machicaco, Julio Díaz Argüedas, Roberto Querajazu Calvo, and Emieto Cano de la Vega.
**TABLE 9**

**BOLIVIAN TIN PRODUCTION 1897-1935**

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<td>115071909</td>
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**SOURCES:**
Eduardo Arze Cuadros, *La economía de Bolivia*, p.250.
### TABLE 10

**BOLIVIAN LOANS 1908-1934**

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<th>YEAR</th>
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<td>? (U.S.)</td>
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<td>£525,000</td>
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**SOURCES:**

Margaret Marsh, *Bankers in Bolivia*.
New Republic 74 (1933):33.
Philip Noel Baker, *Private Manufacture of Armaments*, p.219
Alberto Palacios, "Economic Conditions of Bolivia", BPAU:784-5.

Marsh provides the majority of information presented in this table. In addition, her work provides a great deal of documentation on the terms of the individual loans.
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Figures in Argentine Gold Pesos.
### Table 12

**Oil Concessions**

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<td>José Proilán P.</td>
<td>Sara SC</td>
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<tr>
<td></td>
<td></td>
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<td>Sindicato Sucre</td>
<td>Azero CH</td>
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<td>10</td>
<td>Mandiuti</td>
<td></td>
<td></td>
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<td>Vitiacua</td>
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(Table 12 continued)

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SOURCE: Pedro López, Bolivia y el petróleo, pp. 257-60.
CODES: CH= Chuquisaca; SC= Santa Cruz; LP= La Paz; TAR= Tarija

This table was compiled by López prior to Bolivian acceptance of the transfer of the Braden and Levering concessions to Standard Oil in 1921. López represented an extensive segment of the populace against Standard Oil being allowed to enter Bolivia.

López's book does not include many official concessions prior to 1900 but we know from Klein, "American Oil Companies", p.48, that the 1880's and 1890's were a period of strong national interest in oil, and that many companies were given large concessions to exploit. Who owned these concessions, where they were located, and what happened to them cannot be answered at this time.
Table 13
Oil Production in Bolivia

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**SOURCE:**

*note: his figures are in cubic metres*
MAPS

MAP 1
SOUTH AMERICA
MAP 2

BOLIVIA AND PARAGUAY
MAP 3

THE CHACO BOREAL: GEOGRAPHY, CENTRES

[Map showing geographic features and locations]
MAP 4
PARAGUAY: 1932
MAP 6

PROTOCOLS: 1879-1894
MAP 7

BOLIVIA'S PACIFIC COAST: 1825-1884
MAP 9

BOLIVIA'S RAIL NETWORK: 1868-1925
MAP 11

FORTINES

1938 TREATY LIMITS

BOLIVIAN TOWNS

PARAGUAYAN TOWNS

BOLIVIAN FORTINES

PARAGUAYAN FORTINES

MENNONITE LANDS

SCALE 300 KM
MAP 12
OIL IN BOLIVIA
GLOSSARY

**Audiencia** - can be translated as Royal Court. Nominally Audiencias are judicial divisions; however, a few audiencias (Charcas) incorporated political power in addition to their legal functions.

**Caliche** - these were conglomerates of salt compounds, very rich in nitrates, found inland in the driest areas of the Atacama desert.

**Fortín** - military garrisons in the outlying frontiers of Bolivia and Paraguay; they could be substantial structure with proper defences or temporary buildings sufficient to protect the occupants from the elements.

**Golpe** - a change of government by means of a revolution.

**Guano** - the accumulation of hundreds of years of bird droppings found at specific locations along the west coast of South America from Peru to Chile. These accumulations occasionally reached 30 metres.

**M.N.R.** - Movimiento Nacionalista Revolucionario; a moderate leftist party in Bolivia which, while in power from 1952-64, began the first systematic development of Bolivia's eastern lowlands.

**Protocol** - the copy of a treaty prior to government ratification.

**Quebracho** - an extremely hard and insect-resistant tree; these features made it perfect for railroad cross-ties. Its wood could also be processed to produce tannic acid which was used for tanning leather.

**Uti Possidetis de jure** - "that who owns by law" - a region belonged to a country because of legal and not economic or political definition.

**Uti Possidetis de facto** - the country that politically and economically dominated a region owns it.

**Viceroyalty** - the district/province controlled by a Viceroy
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