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LOGISTICAL SUPPORT OF THE CHINA RELIEF EXPEDITION

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

by

WILLIAM C. HARLOW, MAJ, USA
B.A.. Virginia Military Institute,
Lexington Virginia, 1977

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This thesis studies the logistical support of United States forces in China during the Boxer Rebellion. The thesis examines the crucial logistical aspects of the operations of Army, Navy and Marine forces during the Boxer Rebellion. When the Boxer Rebellion arose in the Spring of 1900, the safety of the foreign communities in Beijing and Tianjin was threatened. An international force, including Americans, was sent to rescue the foreigners and restore order in China. Initially, our military and political leaders did not have a clear picture of the scope of the Boxer Rebellion. This resulted in the initial force, composed of naval landing parties being out numbered and incapable of accomplishing the mission. The naval landing parties also had limited logistics as they relied only on what was aboard their ships. Additional Army units were sent to China from the Philippines and the United States. These forces eventually rescued the besieged foreigners and restored order to China. Their logistics support is an excellent example of 19th Century logistics doctrine modified to meet the realities of operations in China. American logistics during the Boxer Rebellion also provide insights into the nature of logistics while conducting coalition warfare.

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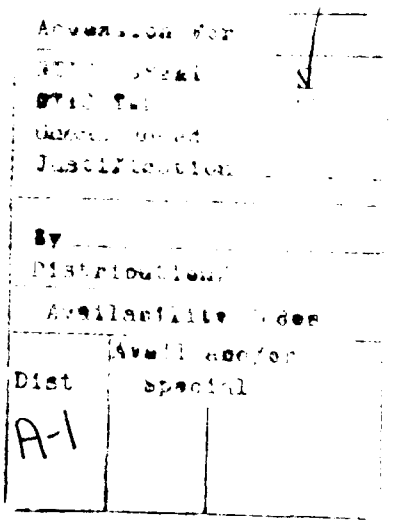

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ABSTRACT

LOGISTICAL SUPPORT OF THE CHINA RELIEF EXPEDITION by MAJ William C. Harlow, USA, 220 pages.

This thesis studies the logistical support of United States forces in China during the Boxer Rebellion. The thesis examines the crucial logistical aspects of the operations of Army, Navy and Marine forces during the Boxer Rebellion.

When the Boxer Rebellion arose in the Spring of 1900, the safety of the foreign communities in Beijing (Peking) and Tianjin (Tientsin) was threatened. An international force, including Americans, was sent to rescue the foreigners and restore order in China.

Initially, our military and political leaders did not have a clear picture of the scope of the Boxer Rebellion. This resulted in the initial force, composed of naval landing parties being out numbered and incapable of accomplishing the mission. The naval landing parties also had limited logistics as they relied only on what was aboard their ships.

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CHAPTER ONE

INTRODUCTION

INTRODUCTION

Between May 1900 and May 1901, the United States sent forces to China to rescue foreign diplomats and civilians under attack by a group of rebellious, anti-foreign, Chinese called "Boxers". Intervention against the Boxers presented the United States military with a formidable logistics challenge. On short notice, the U.S. had to support forces conducting joint and combined military operations in a remote corner of the world. Studying logistics during the Boxer Rebellion is valuable because it provides an early historical example of the difficulties in supporting forces far from domestic bases. The logistics support of United States forces during the Boxer Rebellion provides insights into aspects of rapid deployment and also joint and coalition logistics.

PURPOSE OF THE THESIS

The purpose of this thesis is to examine the logistical history of United States forces in China during the Boxer Rebellion in search of logistics insights and lessons that were learned. This thesis will answer the question: How did the United States logistically support its forces during the Boxer Rebellion? The thesis discusses the logistical aspects of the deployment of United States forces, their support while in China, and their redeployment from China.

SCOPE OF THE THESIS

The thesis focuses on the way logistical support was provided to United States forces in China during the period May 1900 until May 1901. The paper is concerned primarily with Army logistics; however, it also discusses aspects of Navy logistics where it relates to the support of naval landing forces. The thesis covers the political and tactical aspects of the Boxer Rebellion only to show the reasons for the conduct of logistics operations.

SIGNIFICANCE OF THE STUDY

This thesis consolidates and analyzes the logistics aspects of the Boxer Rebellion. It takes information contained in official and private accounts of the Boxer Rebellions and organizes this information into a detailed description of how United States force operated in China during this campaign.

LIMITATIONS AND DELIMITATIONS

Research sources used in this study include government documents, personal diaries, and books. Foreign government documents, unpublished U.S. government documents, and unpublished personal letters or diaries were not used. Statistical analyses is used only were it help to clarify the logistical picture or the scope of logistics operations.

THESIS ORGANIZATION

Chapter one discusses the value of the thesis and how the thesis is organized. Chapter two provides some basic information on the Boxer Rebellion and the United States interests in China that lead to our involvement. This is the background for the logistics discussions in the remainder of the thesis. Chapter two also describes the area of operations and presents the logistical situation in North China in particular and the Pacific in general.

Chapter three describes the existing military organization and logistics systems used by United States forces in 1900. This discussion provides insights into the functioning of the United States military that can be used as a basis for comparison against operations in China. Chapter four describes the beginning of the crisis in China in the spring of 1900 and the military response to the crisis. The first phase of the crisis, or Phase I, lasted from 28 May 1900 to 26 June 1900, and primarily involved

naval forces attempting to protect and then rescue foreigners trapped by the Boxer Rebellion at the foreign compounds in Tianjin (Tientsin) and the legations at Beijing (Peking).

Chapter five describes the deployment of additional United States forces to China following the failure of naval forces to rescue the foreigners in Beijing. This starts Phase II of the campaign, which lasted from 16 June to 14 August 1900. This phase overlaps Phase I because operations continued in China as additional United States Army and Navy units were sent to the area. When this additional deployment began, logistics operations in China were continuing without major changes, but by the end of Phase I, major changes were starting to take shape. Chapter six continues the discussion of Phase II focused on the logistics involved in supporting the march of United States forces to Beijing.

Chapter seven describes the logistical support of United States forces after the occupation of Beijing, during the restoration of order in China, and during the redeployment from China. This period, 14 August 1900 to 23 May 1901, constitutes Phase III.

Chapter eight examines the logistics lessons to be learned from United States involvement in the Boxer Rebellion. The discussion will focus on general logistical problems discovered during the Boxer Rebellion and also

analyze logistics problems unique to the conduct of coalition warfare.

ROMANIZATION SYSTEM

This thesis uses the Pinyin Romanization system that is currently used by most publications to represent the sound of Chinese words. The first time a Chinese word is used, the earlier Wade-Giles Romanization is presented in parentheses behind the Pinyin Romanization. Additionally, Appendix 1 shows alternate spellings of Chinese names and places found in many of the early reports and publications.

CHAPTER TWO

HISTORICAL BACKGROUND, AREA OF OPERATIONS IN CHINA AND SEA LINES OF COMMUNICATION

INTRODUCTION

Before a study of logistics support during the Boxer Rebellion can be undertaken, it is first necessary to provide the historical background to the operation and define the area in which United States forces were supported during the Boxer Rebellion. This chapter also discusses the terrain, climate, population, and logistics infrastructure found in North China in 1900. Following the discussion of the area of operations is a description of the sea lines of communication used to get to China.

BACKGROUND

In the last years of the Nineteenth Century, China was a land seething with discontent. Crops had failed, rivers had flooded their banks, and millions of Chinese faced starvation. China's slow dismemberment by foreign

powers aggravated her problems. Foreign powers seized Chinese ports, obtained immunity from Chinese laws for their citizens, and introduced foreign religion and customs that offended the sensibilities o. a large number of Chinese. Additionally, foreign products and technology put many Chinese out of work.[1]

In early 1899 a small secret society called I-Ho Ch'uan, that translates into English as "Patriotic Harmony Fists", began to persecute missionaries in the outlying areas of Hebei (Chihli) and Shandong (Shantung) provinces in Northern China. Their symbol was a clenched fist. This symbol caused the foreigners to call the group "Boxers".[2] Boxers were Chinese traditionalists who believed that magic and ritual could protect them from bullets. They believed that China's troubles were caused by foreigners. The Boxer's believed that ridding China of foreign influence would solve their problems and it was their goal to exterminate the foreigners.[3]

By the spring of 1900, large numbers of unemployed had swelled the ranks of the Boxers. The Boxers were joined by others who hated the missionaries and the foreign influences that threatened the traditional Chinese way of life. Their anti-foreign populism gathered support in the Imperial Court. Many people in the court, including Ci Xi (T'zu-hsi), the Empress Dowager, saw the Boxers as a way to stop foreign encroachment on Chinese sovereignty.[4]

With each passing week, Boxer attacks on missionaries and railroads moved closer to the foreign communities at Beijing and Tianjin. Appeals by the ministers of the foreign powers to the Chinese Court failed to check the advance of the Boxers. The United States minister in Beijing, Mr. Edwin H. Conger, and the other ministers, concerned for their lives, requested legation guards on 28 May 1900. Shortly after the arrival of a small marine contingent, the Boxers surrounded and placed under siege the international communities at Beijing and Tianjin.[5]

The term "Boxer Rebellion" describes the Boxer's attempt drive the foreigners from China and the response to the Boxer attacks by the great powers. The eight great powers, including the United States, mobilized resources from around the world and worked together to rescue the besieged foreigners at Beijing and Tianjin. Initially, marines and sailors tried to break the sieges. However, these forces were insufficient to do so.

An international army broke the siege of Tianjin in June 1900, captured the remainder of Tianjin in July 1900, and reached Beijing on 14 August 1900. The great powers were often referred to as "allies" in this cause; however, no formal alliance ever existed. They fought together because of common goals and because of necessity.[6]

UNITED STATES INTERESTS IN CHINA

After China's defeat by Japan in 1895, a number of powers had sensed China's weakness and had begun carving China into "spheres of influence" by which they could control China's economy. Fearing that these spheres of influence would result in the loss of trade for the United States, Secretary of State John Hay started promoting an open door policy. In 1899 he sent open door notes to Great Britain, Germany, France, Russia, Japan, and Italy. The theory of the open door was for all countries to be allowed to share equally in trade with China without being hindered by sphere of influence.[7]

The British, who were concerned about Russian and German expansion in the region, supported the notes. This policy was also economically and politically practical for the United States as it allowed us to reap the benefits of trade without having to garrison and administer a sphere of influence.[8]

The United States had been conducting a lucrative trade with China for years. By 1900, annual trade with China exceeded $32,000,000. The United States stood behind only Britain and Japan in total trade with China. The China trade brought United States businessmen and missionaries to China. By 1900, over 2,000 Americans lived in China including, missionaries, engineers, merchants, and diplomates. Thus, it was a key interest of the United

States to the protect lives and property of U.S. civilians in China.[9]

The United States felt that the more the foreign powers carved up China, the greater the harmful effect on United States trade. The open door policy placed the United States in the position of being a protector of China. This role would be reflected in the instructions given to our forces sent to China. However, regardless of the stated United States goals, because of the recent expansion into the Philippines and our efforts to defeat the Boxer Rebellion, many Chinese viewed the United States as being no different than any other foreign powers.[10]

UNITED STATES OBJECTIVES

With the outbreak of the Boxer Rebellion, United States interests in equal trade rights in China and the desire to protect American lives and property were expressed in clearly defined political, economic, and military objectives. The political objectives were to preserve China's territorial and administrative integrity and retain the friendship of the Chinese people.[11] The economic objective was to protect the rights guaranteed to friendly powers under treaty and international law. The rights being protected safeguarded the principle of equal and impartial trade with all parts of the Chinese Empire.[12] The military objective was the rescue of U.S. citizens under siege at Beijing and Tianjin.[13]

The successful relief of Beijing and Tianjin protected American lives and property; however, using military force to accomplish the other political and economic objectives was more difficult. After the capture of Beijing, United States force remained in China to help restore peace and order. During the occupation of Beijing, fair administration by the United States military helped retain the friendship of the Chinese people. The violence used during the suppression of the Boxers, was necessary to restore order. After order was restored, the United States limited its involvement in punitive expeditions, again winning the friendship of the Chinese people.[14]

The United States force sent to China was capable of operating independently of the other allies. By sending this force and participating in the relief of the legations, the United States insured a spot for itself at the negotiation table at the ended the Boxer Rebellion. The leverage obtained by fielding forces allowed the United States to prevent other allies from obtaining further territorial concessions in China.[15]

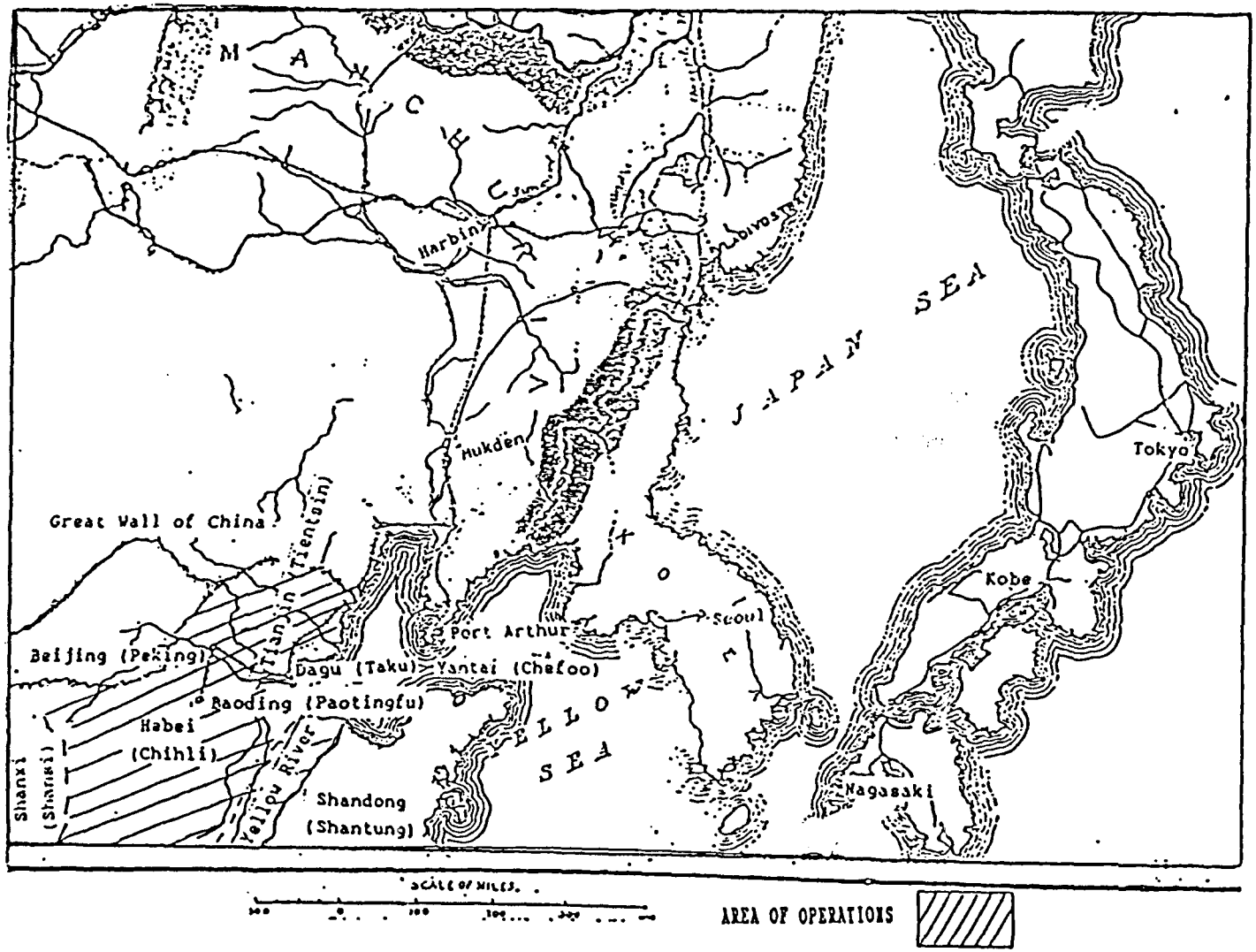
UNITED STATES FORCES IN CHINA

In 1900, the United States had no Army and only a limited naval presence in China. The Navy's Asiatic Squadron, headquartered at Cavite in the Philippines, designated a small subordinate element, normally only two ships, to operate in Chinese waters north of Hong Kong.

As Boxer activities increased in the spring of 1900, the gunboat Wheeling was sent to Dagu (Taku) on 2 April 1900. The Boxer threat temporarily subsided and the Wheeling was withdrawn after two weeks.[16] The United States had no permanent bases or spheres of influence in China.

AREA OF OPERATIONS IN CHINA

The Boxers operated throughout China; however, the Boxer movement was concentrated in the provinces of Shandong and Hebei (the old province of Chihli in which Beijing was located) in North China. At the outbreak of the rebellion, in the late spring of 1900, the governors of Shandong and the southern provinces of China provided only token support to the central government. The governors protected foreign interests in their provinces. Their failure to provide assistance to the Empress Dowager is why the Boxer uprising is viewed as a rebellion and not a war.[17] This is also why the area of operations was confined primarily to the province of Hebei with limited action in Manchuria. However, from the United States view, the military operations of the Boxer Rebellion took part in an area bordered on the north by the Great Wall of China, on the south by the Yellow River, on the east by the Gulf of Bo Hai (Gulf of Chihli), and in the West by Shanxi (Shansi) Province. To understand the area of operations, it is necessary to discuss the characteristics of the area that can affect military logistics operations.



MAP OF AREA OF OPERATIONS

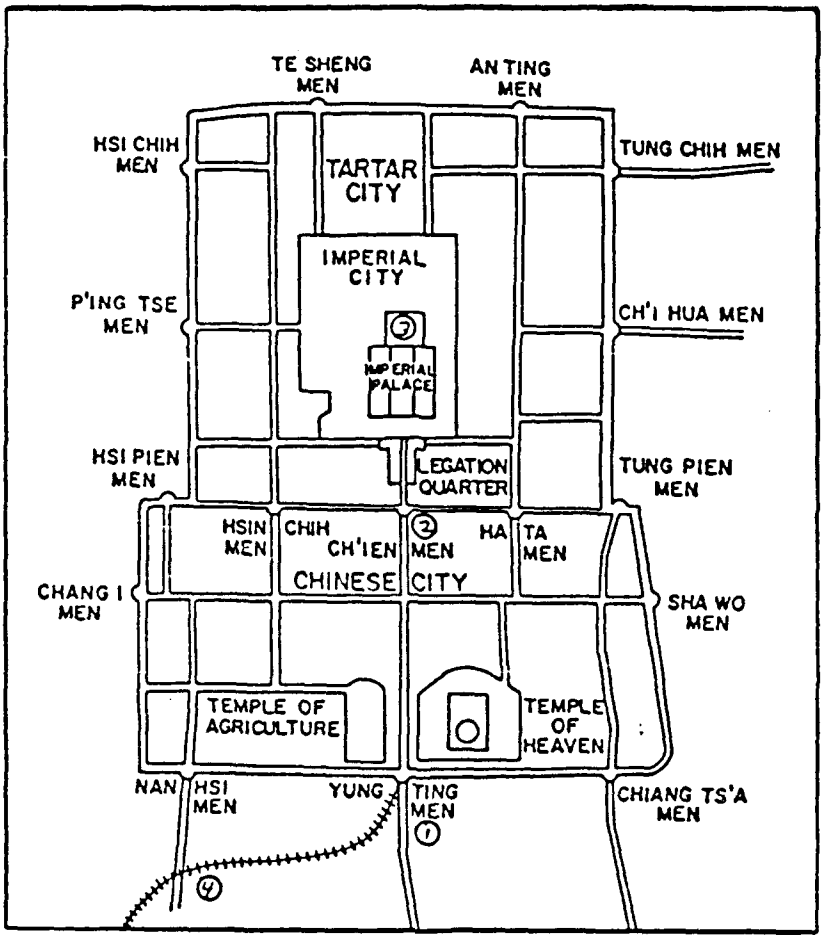
TOPOGRAPHY, CLIMATE, AND POPULATION

The province of Hebei was dominated by a great plain. This plain was devoid of trees and had a high water table. The plain was drained by many rivers and streams. Due to the lack of trees and the heavy cultivation of the plain, these waterways were often clogged with silt.[19]

The climate of the Great Plain of North China was characterized by bitterly cold winters and extremely hot summers. The rains were seasonal. The combination of these climatic factors made agriculture on the plain highly susceptible to the fortunes of weather. In 1900, the area was suffering from a severe drought.[20] The resulting crop failures were a contributing cause to the Boxer Rebellion.

In 1900, China had a population of about 400 million. Of these, about 30 million lived on the great plain of North China.[21] Most lived in numerous small farming communities scattered across the plain; however, there were several key population centers that would be essential to the logistics support of the allies during the Boxer Rebellion.

Beijing was the imperial capital in 1900. It was really five cities in one. The northern part of Beijing was called the Tarter City. In the center of the Tarter City was the Forbidden City where the Empress Dowager lived and the Imperial City, where her servants lived. South of



Key Locations

① Yundingmen (Yung-ting-men) Gate

② Zhengyangmen (Qianmen/Chien-men) Gate

③ Forbidden City

④ Electric Tramway to Majiapu Station

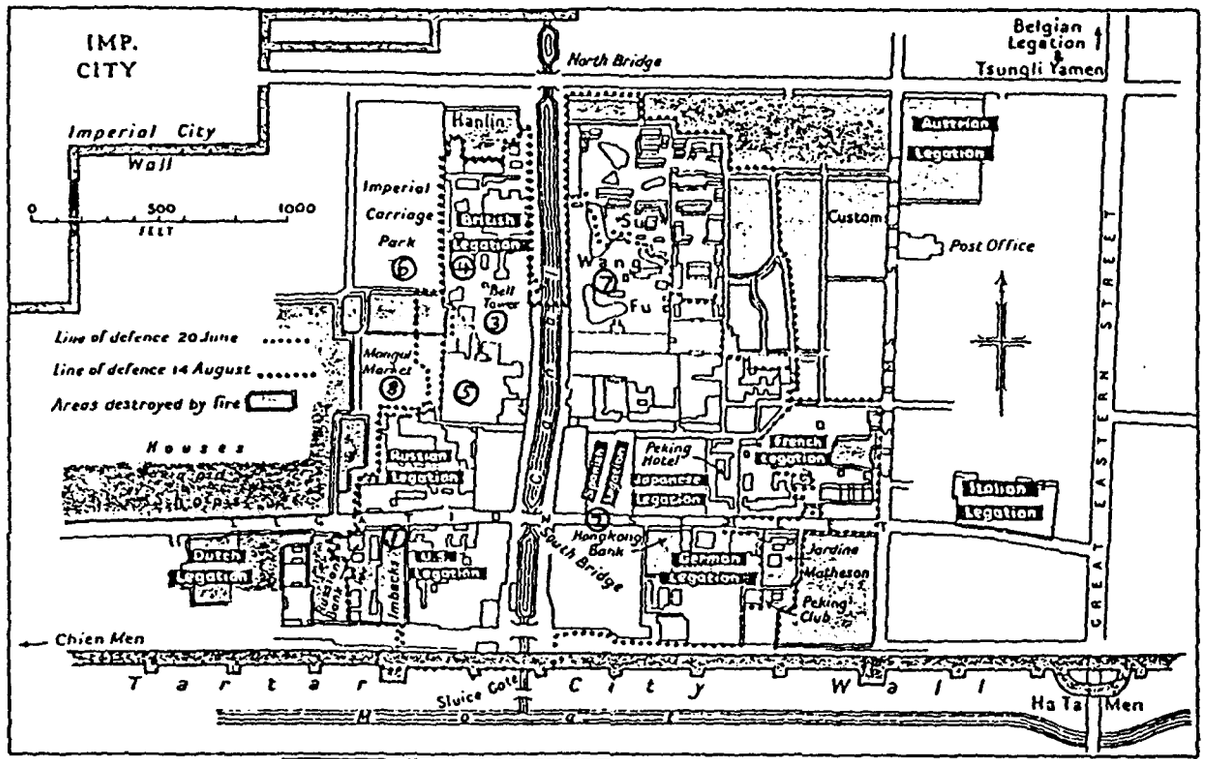
CITY OF BEIJING[22]

the Tarter City, was the Chinese City, the commercial hub of Beijing. These four cities are all surrounded by massive walls, up to 50 feet high. Wedged in between the Imperial City and the Chinese City was the objective of both the Boxers and the allies, the Legation Quarter.[23]

The Legation Quarter was the main European settlement in Beijing. Located in an area about one mile long and a half mile wide were the legations of the eleven great powers including the United States, Great Britain, Russia, Germany, France, Japan, Spain, Netherlands, Belgium, Austria, and Italy. Also here, were the Chinese Imperial Tsungli Yamen, the equivalent of a foreign office, and other Chinese government offices. There was a large commercial area immediately adjoining the legation area.[24]

All the embassies in Legation Quarter had their own walls. The legations had their own water wells. In the Legation Quarter were hotels, banks, a post office, a college and everything else required to maintain a European life style in the Far East. The commercial establishments would prove crucial to the 800 plus Europeans, Americans, and Japanese who would hold out there.[25]

Imbeck's Hotel and Store and Kierulf's Store were both European run stores in the Legation Quarter. Every spring, they would stock up with canned goods, cloth, tools, and other luxury items to supply the diplomatic



Key Logistics Locations

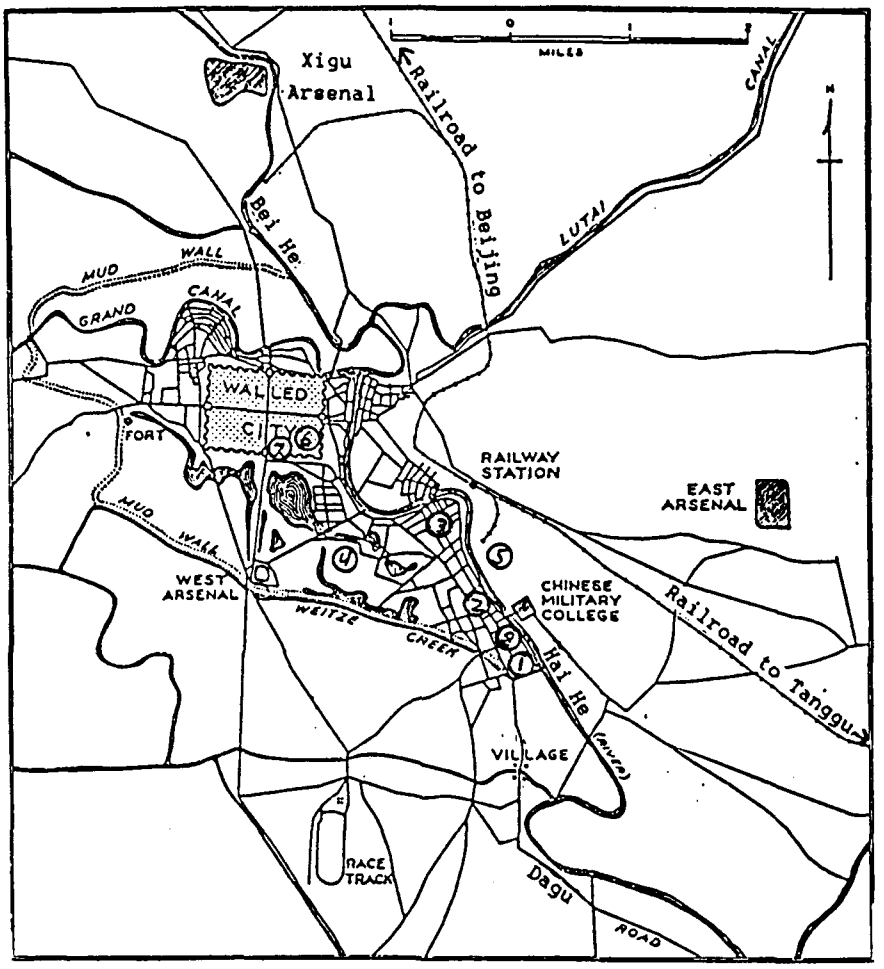
① Imbeck's Store	⑤ International Hospital
② Kierulf's Store	⑥ Imperial Carriage Park
③ Water Wells	⑦ Chinese Christian Refugees
④ Commissary	⑧ Chinese Shops

MAP OF LEGATION QUARTER IN BEIJING[26]

community through the summer.[27] Chinese merchants also kept stocks of wheat, rice, and other food stuffs in stores near the legations. The Europeans had a race track several miles outside the city. Every spring, races were held and the ponies used in these races were close to the city.[28] Several embassies had their own doctors for treating Europeans.[29]

The other major population center in Hebei was Tianjin which, in 1900, was the largest city in North China. It had an estimated population of 1 million. At the center of Tianjin was a walled Chinese city. To the south of the walled city on the east and west banks of the Hai He were the foreign concessions. This European settlement at Tianjin was one of the most modern in China. It had a water works, town hall, and cathedrals.[30]

These settlements, on the left bank, from north to south, consisted of a Japanese, French, British, and German concessions. Across the river were the Russian and Belgian concessions. While the Americans had no official concession they were located in parts of the British and German Concessions. These concessions were between a quarter and half mile in width and ran for about a mile along the banks of the Hai He. In the Russian concession was the railway terminal. The railway terminal was connected to the concessions on the west bank by a pontoon bridge made of junks.[31]



Legend

① German Concession	⑤ Russian Concession
② British Concession	⑥ Salt Commission (Mint)
③ French Concession	⑦ Armoury
④ Japanese Concesson	⑧ American Compound

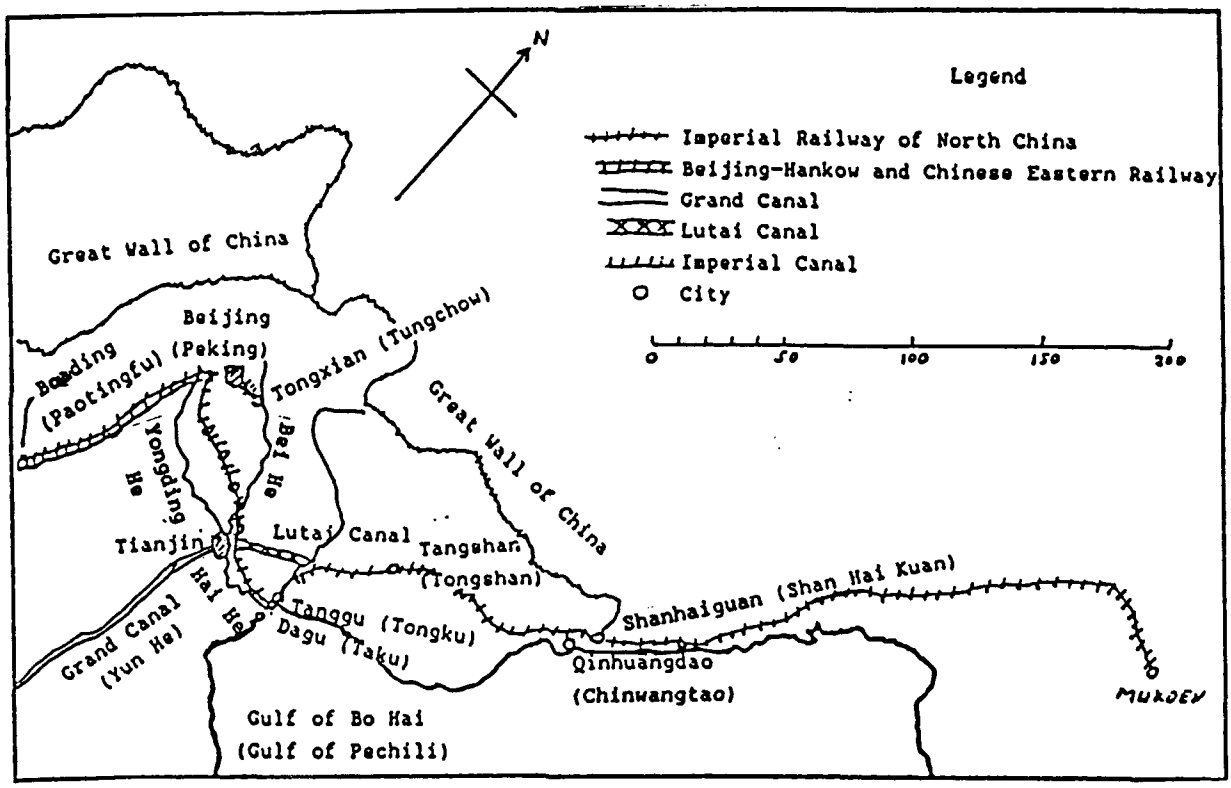
CITY OF TIANJIN[32]

Tianjin's importance during the Boxer Rebellion came from its role as a transportation hub. It was the center of transportation on the North China Plain. This caused it to become the center of resistance for the Boxer and the crucial intermediate objective of the allies. To fully understand Tianjin's importance, it is necessary to discuss transportation on the North China Plain.

TRANSPORTATION ON THE NORTH CHINA PLAIN

In 1900, there were two transportation systems being used on the North China Plain. The first was the Chinese system. The Chinese system relied on a mixture of muscle powered water and ground transportation. As European commerce grew in North China, western solutions to transportation difficulties came into being that supplemented, and in some cases supplanted the Chinese system. These systems included steam powered water transport and railroads. Each system had its limitations. The allies used all these systems to transport their men and supplies to Beijing. It is therefore useful to discuss how each system operated between the coast and Beijing.

Waterways were important in both the Chinese and European transportation systems. While several rivers of less importance, such as the Yungding He (Hun Ho), drain the North China Plain, no river was of greater importance than the Bei He, which flows from Tongxian (Tungchow), 13 miles west of Beijing, to Tianjin and then onto the sea at



TRANSPORTATION NETWORK IN NORTH CHINA[33]

Dagu as the Hai He. (Both rivers were called the Pei Ho by the allies of the time.) The Hai He and Bei He rivers were a main trade route from the coast to Beijing. From the mouth of the Hai He on the Gulf of Bo Hai, these two rivers were a curving brown mass of silt filled water for 140 miles to Tongxian where the Bei He it became unnavigable. On the 51 miles between Dagu and Tianjin, the Hai He was navigable by steam tugs, lighters, junks, and sampans. Beyond Tianjin, only junks and sampans could make their way up the Bei He that was often not wider than 50 feet. Above Tongxian, the river was unnavigable. The 13 miles to Beijing had to be covered using an old canal or road.[34]

Water transportation had a number of serious limitations. A limiting factor on the use of the river was climatic. During the summer, lack of rain could make the river unnavigable to steam lighters south of Tianjin. Severe droughts could also limit junk traffic. The river also became unnavigable in the winter due to ice. These factors made transportation on the Hai He unreliable.[35]

Chinese river transport was supplemented by European water transportation assets. In the summer of 1900, the Dagu Tug and Lighter Company had a monopoly for off-loading ships. In addition, their were numerous tugs and lighters that took cargo and passengers from Dagu or Tanggu (Tangku) to Tianjin. A journey from the coast to Beijing up the Hai He would start at the port of Dagu.[36]

Dagu is the coastal city that was the gateway to the North China Plain. Dagu was on the south side of the Hai He at the entrance to the river. Dagu was the port that controlled access to the Hai He from the sea. To control this access, a series of four forts were built. These forts could easily seal off the mouth of the river and prevent troops and supplies from moving up the Hai He.[37]

Other key facilities at Dagu included, a small Chinese naval yard and a small village where harbor pilots lived. Besides these small installations, Dagu had few landing facilities. It also had no rail communications.[38]

Dagu, however, was not a natural harbor. Between 11 and 12 miles out in the Gulf of Bo Hai was the Dagu Bar. Depending on tide and wind, this bar was between two and seventeen feet below water surface. Ocean going ships had to anchor 12 to 14 miles off shore while any cargo being landed was loaded onto lighters and taken to the entrance to the river.[39]

Only three miles up river from Dagu was the riverine port of Tanggu. This port had more landing facilities and warehouses than Dagu and was an important coal port. Ships arriving in North China would anchor off Dagu and unload their cargo into lighters that would go up the river to Tanggu. Here the cargo would be transhipped to the railroad, junks, sampans, or, if the river was high enough,

the steam tugs and lighters could take the cargo directly up river to Tianjin.[40]

Tianjin was a major hub for water transportation on the North China Plain. Here the Yungding He, the Grand Canal, and the Bei He/Hai He met. Along the rivers, were wharves and landing facilities to handle lighters, tugs and junks coming from the Dagu/Tanggu and junks from Tongxian. These facilities were very poor as the river was very winding and was often clogged with silt despite constant dredging. As a large commercial city, there were many warehouses, called godowns, used to store grain, cloth, and other products.[41]

Tianjin also produced salt for commercial sale from distilled sea water. Tianjin's salt commission collected local and imperial revenue from the sale of salt. The salt commission headquarters was a large bullion depository often referred to as a mint.[42]

Tianjin was also an important city to the Chinese militarily. There were three major arsenals in the immediate vicinity of Tianjin. The Western Arsenal was within the city limits, the East Arsenal was just outside, and the Xigu (Hsiku) Arsenal was eight miles north of the city. All these arsenals were stocked with modern arms. In fact, during 1899, more than half the arms imported into China for the Imperial Army came through Tianjin.[43]

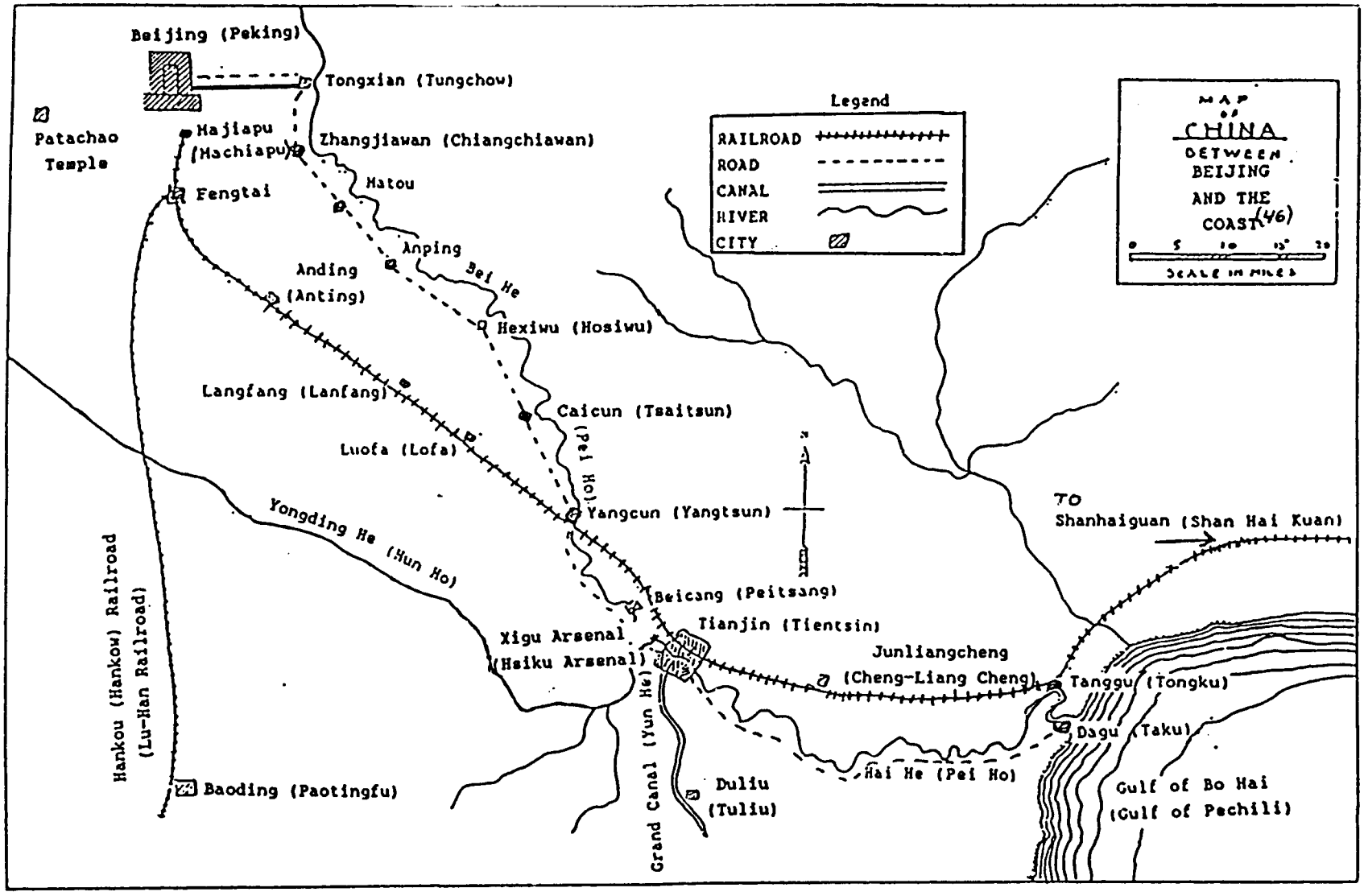
Water transport by junk and sampan was slow. Wind power could be used a little. However, beyond Tianjin, most junks had to be poled or pulled up to Tongxian by the Chinese boatmen. From Dagu to Tongxian was a good four day trip. After this, there was still a half day trip by sampan or cart over the 13 miles from Tongxian to Beijing. A junk could normally transport six to twelve tons cargo. A sampan could carry less than one ton.[44]

COASTAL PORTS

While Dagu and the other ports along the Hai He were the principal water terminals in 1900, they all became ice bound in the winter. There were other ports on the Gulf of Bo Hai that would play a lesser role in the Boxer Rebellion. The coal port of Qinhuangdao (Chinwangtao) was the finest natural harbor on the North China Plain. Further up the coast from Qinhuangdao, at the place were the Great Wall of China met the sea, was the port of Shanhaiguan (Shanhaikuan). While not as fine a harbor as Qinhuangdao, Shanhaiguan was also ice free in the winter. Both were connected to Tianjin by rail.[45]

RAILROADS

The Chinese transportation system was adequate for the Chinese economy, but it was based on cheap labor. Chinese transportation methods had changed little in thousands of years. For Europeans, the Chinese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Majiapu (Machiapu)
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Fengtai
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Anping
Bei He
Anding (Anting)
Hexiwu (Hosiwu)
Langfang (Lanfang)
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Beicang (Peitsang)
Tianjin (Tientsin)
Xigu Arsenal (Haiku Arsenal)
Junliangcheng (Cheng-Liang Cheng)
Tanggu (Tongku)
Dagu (Taku)
Baoding (Paotingfu)
Grand Canal (Yun He)
Duliu (Tuliu)
Hai He (Pei Ho)
Gulf of Bo Hai (Gulf of Pechili)
TO Shanhaiguan (Shan Hai Kuan)
Legend
RAILROAD
ROAD
CANAL
RIVER
CITY
MAP OF CHINA BETWEEN BEIJING AND THE COAST (46)
SCALE IN MILES

transportation systemwas slow and unreliable. The European solution to transportation in China was to construct railroads.

In 1897, a British and Chinese funded railway called the Imperial Railway of North China had been completed as far as Beijing. This railroad connected Tianjin and Beijing with the coast at the riverine port of Tanggu. It was an extremely well constructed railway and also connected North China with Manchuria.[47]

The Imperial Railway of North China entered the area of operations from Manchuria at Shanhaiguan 150 miles northeast of Tanggu along the coast. As the railway moves southwest, it passes the small coal port of Qinhuangdao. Further south from Qinhuangdao was Tangshan (Tongshan). Here there was a major railway repair shop and manufacturing facility.[48]

The next major station along the Imperial Railway was Tanggu. Tanggu, besides being a river port, was important because it was the main transshipment for people or goods changing modes of transportation. Tanggu had large numbers of godowns to store goods landed at this riverine port. There were also huge piles of coal stored at Tanggu to support the railroad, ships, and other commercial uses. The station at Tanggu was a major staging facility for rolling stock and railway repair supplies such as rails and sleepers.[49]

From Tanggu to Tianjin was 31 miles. The station at Tianjin was also a major staging facility for rolling stock and railway repair supplies such as rails and sleepers.[50] Yangcun (Yangtsun), about 20 miles north of Tianjin, was the next major station.[51]

Yangcun was located on the east side of the Bai He. It was important because just north of this station was the steel railway bridge over the river. This was the one indispensable link in the line. Destruction of the bridge would require a major repair/replacement effort.[52]

Other stations along the line include Luofa (Lofa), Langfang (Lanfang), and Anding (Anting). These stations had water and coal for the trains but only limited repair capabilities. Approximately seven miles from Beijing was Fengtai station. This also had major railway equipment repair shops and was also where the Lu Han railway, that would some day link Beijing with Hankou (Hankow), connected with the Imperial Railway of North China. In 1900, the Lu Han line was only completed to Baoding (Paotingfu), about 50 miles southwest of Beijing.[53]

The last leg of the line was five miles in length to Majiapu (Machiapu) station. This station was two miles from the south, Yongdingmen (Yungtingmen), gate. A small electric tramway ran from the station to the gate. From there, it was still another two miles to the Legation

Quarter. The total distance from Tianjin to Beijing was 84 miles. From Tanggu to Tianjin was 31 miles.[54]

The Europeans saw the railroad as the answer to China's transportations problems. It was a fast, reliable, year round source of transportation. A trip from Tanggu to Beijing could be made in eight to ten hours as compared to four plus days by boat. Because of this, the railway would be prominent in any logistics operations on the North China Plain.

ROADS

Roads connecting the major cities were extremely poor. These roads were not laid out according to any definite plan. The secondary roads were not built on public land. These roads were crooked and were often destroyed by farmers to prevent traffic from passing through their land.[55]

There were some primary roads such as one paralleling the Bai He river and the Imperial Canal that connected Tongxian with Beijing. These roads were still crooked, but had the advantage of being elevated slightly over the surrounding plain. Most roads were unsurfaced. Taking a road in North China was not necessarily the fastest or shortest way between two points.[56]

Traffic moved along these roads by a variety of modes. Wheeled carts could move 1000 pounds of cargo. Mules, camels, and other pack animals could move 100 to 150

pounds of cargo. Coolies carriers or operators of wheelbarrows were also instrumental in moving cargo. These methods of road transportation were the primary means of moving cargo inland from the rivers.[57]

CHINESE LOGISTICS RESOURCES

Most farming villages on the North China Plain had grain stores, domestic animals, and fodder. They also had wells with potable water. Despite the drought and the impending famine, these villages proved a great resource for feeding both the Boxers and the allies. There were also Imperial and provincial granaries in Tianjin, Beijing and in the Imperial hunting reserve south of Beijing. The area was devoid of wood for fuel and building. Hebei did, however, have numerous coal mines and coal was available throughout the area.[58]

North China's other key logistics resource was an almost unlimited supply of cheap labor. This cheap labor would prove instrumental for loading cargo, cooking, and numerous other logistics functions.[59]

SEA LINES OF COMMUNICATION

Prior to May 1900, when the Boxer Rebellion menace prompted a call for troops from the foreign ministers, the United States Navy was very familiar with Chinese waters. Additionally, the Army and Navy, were conducting major military operations in the Philippines at this time. As a result sea lines of communication were already being

established prior to the outbreak of hostilities. Several important ports outside the area of operations had an impact on the sea lines of communications. Military sealift assets made the entire supply system work.

The Army and Navy had bases on the west coast of the United States and in Honolulu, Hawaii. In the Philippines, the Army had a major base in Manila and the Navy's had a major base at Cavite. In addition to these bases, the United States used other Pacific ports to support the fleet. Hong Kong, Shanghai, and Yantai (Chefoo) were important ports of call in China. These ports were used to obtain coal and other supplies for the ships on station.[60]

In addition to these bases and ports, the ports in Japan had a major impact. Nagasaki was the most important Japanese port. This port was used to supply, repair, and provide coal to transports returning to the United States from the Philippines. At Nagasaki, Major John M. Hyde, Quartermaster, was in charge of the logistics operations. He managed the contracts for coal and other supplies.[61]

Major Hyde was on station in Nagasaki at the outbreak of the Boxer Rebellion. He played a crucial role in organizing Nagasaki as a staging base for logistics operations in China. A major function of Nagasaki was to provide vessels with coal. Coaling was accomplished by hand. The laborers were Japanese women and children.

Working twelve to sixteen hours a day, it normally took 36 hours to coal a transport at Nagasaki.[62]

The Japanese government ship yards at Kuri were used to make repairs on damaged United States ships. Kobe and Yokohama were used for coaling, resupplying, and repairing United States naval vessels. Yokohama was used as a base for a United States Navy hospital.[63]

These bases were already involved in the United States logistics effort in the Philippines. They were also valuable to support the sea lines of communications when United States forces were deployed to China. In addition to the bases, the Army and Navy also had extensive transportation assets in the region.

In the Philippines there was a quartermaster depot in Manila and a major arsenal in Cavite. To support the deployment of the supplies and troops the Army had a transport fleet. By 1900, the Army had 23 ocean going transports supporting operations in the Philippines. These ships carried the designation United States Army Transport (USAT). The Army also had 125 auxiliary craft including coastal transports, tugs, lighters, and even hospital ships. These vessels were either chartered by the Army or purchased outright.[64]

It normally required two transports to ship an infantry regiment overseas. One was used to transport approximately 1,000 soldiers with some supplies and

equipment. The other was used to transport the remainder of the supplies, wagons, horses, and some soldiers.[65] Some transports were designed primarily to carry animals. Each transport had a quartermaster officer who was the officer in charge of transport and saw to the billeting of soldiers, the loading, storing, and unloading of personnel and equipment. With the tremendous buildup of forces in the Philippines, these officers had become quite proficient in transporting men, animals, and materiel.[66]

Soldiers and supplies supporting the Philippines campaign in 1900 were deployed and supported from key ports, depots, and arsenals on the east and west coast of the United States. Any action in China would be supported not only by Army and Navy assets in the Philippines but also by the existing supply routes from the United States.

Supplies from the west coast normally came from the quartermaster's depot at San Francisco. Army transports shipped supplies directly to Manila with a coaling stop at Honolulu.[67] Portland and Seattle were also used as ports of embarkation from time to time.[68]

During the Boxer Rebellion, Nagasaki was often used as an intermediate stop. However, some ships from the Philippines went directly to Dagu. Sailing time directly from Manila to Dagu was approximately 9 days. Sailing time from Nagasaki to Dagu was about 4 days. Sailing time from Manila to Nagasaki was 5 days. From ports on the west

coast of the United States to Nagasaki took from 24 to 31 days via Honolulu and Kobe. The amount of time required depended on the speed of the transport and the weather.[69]

Its clear, from examining the differences in transport travel times, that it took three times longer to get from the west coast of the United States to Dagu than from the Philippines to Dagu. Regardless of sailing time, all transports stopping at Nagasaki faced some delays as they trans-loaded supplies or refueled. This was a change in normal shipping routes caused by the operations in China during the Boxer Rebellion. A transport could expect even greater delays off-loading at Dagu. Here limited landing facilities, bad weather, and competition between the allies for limited off-loading assets made it take from two to four days to off-load a transport.[70]

SUMMARY

The military and logistics area of operations in China was confined, primarily, to Hebei province. Hebei was a flat, heavily populated province with established economic centers and infrastructure capable of supporting large scale military and logistics operations. The most crucial logistics resource was the transportation system. It was an adequate system consisting of traditional Chinese water and ground transportation supplemented by modern rail and water transportation. While the transportation system was adequate to support commerce in Hebei, it had some

shortcomings if called upon to support military operations. First, it was vulnerable to attack. Before it could be used, the hub of the transportation network at Tianjin would have to be secured and damage to the system repaired. Vital assets in the transportation system, such as bridges and railway stations, would then have to be guarded to prevent future disruptions.

Another shortcoming in the Hebei area of operations on the eve of the Boxer Rebellion was that the United States lacked established bases. Any forces sent to the area would have to land at Dagu. Dagu was not a natural harbor and caused many difficulties in landing troops, equipment and supplies during normal commercial operations. The additional work load placed on the port during a major military operation could be a major logistics problem.

The area of operations could support major military operations. However, support of these operations would require initiative and cooperation to overcome limitations in the port at Dagu and the vulnerabilities of the transportation system.

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CHAPTER TWO

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CHAPTER THREE

THE ORGANIZATION OF UNITED STATES FORCES AND THEIR LOGISTICS SYSTEM

INTRODUCTION

During the Boxer Rebellion, the logistics support provided to United State forces in China was primarily accomplished using assets and procedures already in use to support United States forces in the Philippines. Logistics operations for both the Army and the Navy were based on the logistical doctrine and organization in use in 1900. This chapter discusses the organization of the United States Pacific Army and Navy forces in the Pacific and how their logistics systems operated. This chapter also compares the Army and Navy logistics systems and discuss how they interfaced during joint operations.

ORGANIZATION OF UNITED STATES FORCES IN THE PACIFIC

In May 1900, the U.S. had considerable forces in the Pacific. The Philippines Insurrection was at its height

and over 70,000 soldiers and 1,800 marines were on active duty in the Philippines.[1] This large concentration of troops would form the nucleus of United States Forces comprising the China Relief Expedition.

Army Forces in the Philippines were organized geographically into the Division of the Philippines. The Division of the Philippines was under the command of Major General Arthur MacArthur whose headquarters was in Manila.[2]

MacArthur's Navy counterpart was Rear Admiral George C. Remey, commander of the Asiatic Squadron that operated in the Philippines, China, and Japan. Admiral Remey's flagship was the cruiser Brooklyn. His headquarters was at Cavite, Philippines.[3] Because of the increased threat to American interests in China prior to the outbreak of the Boxer Rebellion, Admiral Remey established a subordinate command to patrol Chinese waters North of Hong Kong. Rear Admiral Louis Kempff commanded this small squadron.[4]

Army and Navy forces reported to the War Department and the Navy Department, respectively. While direct coordination occurred between the Army and the Navy organization in the Pacific, this coordination normally dealt with tactical or operational issues where cooperation was mandatory in order to accomplish the mission. MacArthur would talk to Remey and field commanders would talk directly with ship commanders to coordinate tactical

operations and support. The logistics departments of the respective services would coordinate their activities to save money and resources, and logistics. This cooperation was not mandatory. Any disputes over the conduct of operations were referred back to the United States for resolution.

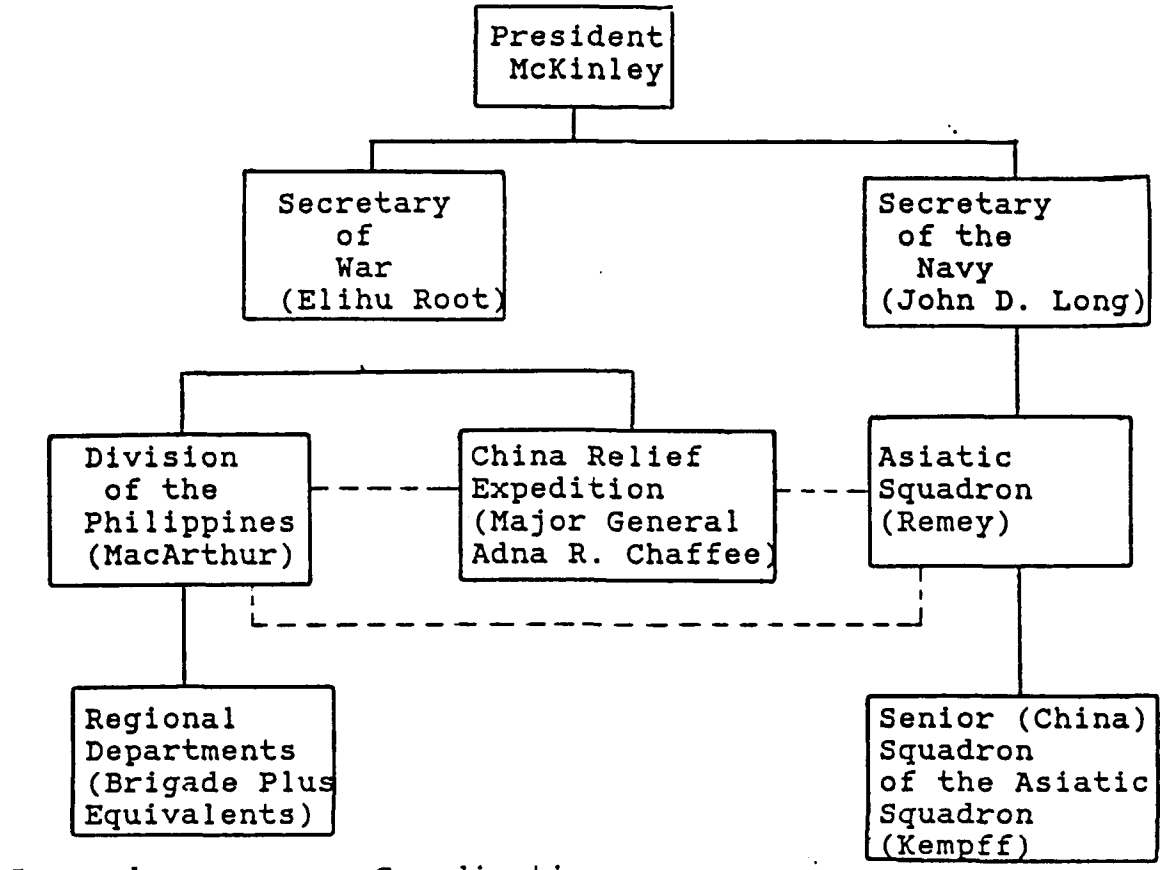
During the Boxer Rebellion, the basic Army command structure in the Pacific would be modified to include a division in China. This division was a separate command that would report directly to the War Department. However, it relied heavily on the Division of the Philippines for troops, logistical support, and communications. The Navy did not change its command structure. However, Admiral Remey did arrive off Dagu on 10 July 1900 to more closely supervise naval forces operating in China. The number of vessels on China station greatly increased during the Boxer Rebellion.[5]

It is difficult to understand the logistics of the Army or the Navy without first understanding how they were organized and how they each logistically supported their organizations. The remainder of this chapter will describe the military and logistic organizations of the Army and Navy.

ORGANIZATION OF THE UNITED STATES ARMY

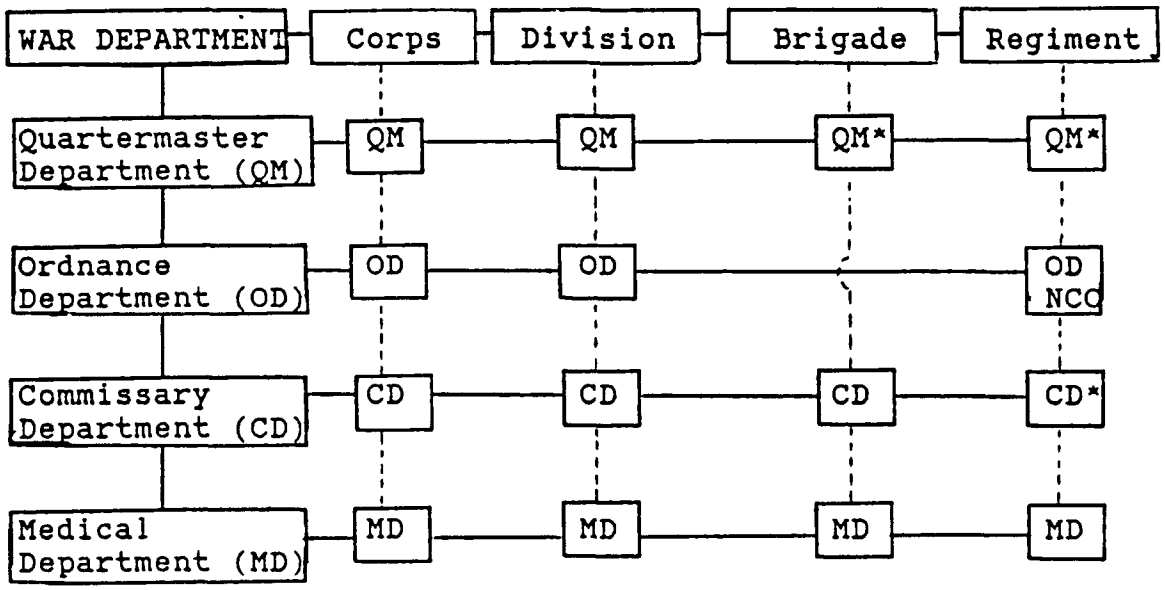
The United States Army numbered about 100,000 soldiers in 1900. It was organized by geographic

PACIFIC CHAIN OF COMMAND



Command _____ Coordination ------

ARMY LOGISTICS ORGANIZATION



Logistics Chain - - - - - Tactical Chain _____
* Not an officer from the department

departments in the United States, Caribbean (Cuba and Puerto Rico), and the Pacific. The departments were further divided into military districts and divisions. These geographic departments provided administrative and logistical support for the tactical Army units operating in them. Tactical units included corps, divisions, brigades, regiments, battalions and companies. To support these forces were the four logistics departments or bureaus. These departments included Quartermaster, Commissary, Ordnance, and Medical.

LOGISTICS DEPARTMENTS

The logistics departments that supported the various units of the army operated separately within their own areas of responsibility. In this part of the chapter, the functions of each logistics department will be detailed.

COMMISSARY DEPARTMENT

In 1900, the Commissary Department, also called the Subsistence Department, was a separate logistics branch. Today the function of feeding soldiers and the suppling of food, or class I supplies, is performed by the Quartermaster Corps. In 1900, the Commissary Department performed all Class I functions. It also did what the post exchange does today for forward deployed troops. Health and welfare supplies (Class VI) were also handled by the Commissary Department. The Commissary Department was responsible for the purchase and shipment of rations and

health and welfare items to forward depots where it would be drawn by brigade and regimental size units.[6]

The United States soldier required three pounds of food per day. Food could be broken down into two categories: fresh and preserved. Fresh meat and vegetables were served whenever possible and even as partial issues to supplement preserved rations. Preserved food was used as emergency rations or travel rations. In 1900, canning and desiccating were the primary methods of preserving field rations. Bulk shipments of meat were often frozen to preserve them. Preserved food was a significant part of the soldier's ration.[7]

Types of preserved foods included canned meats such as pork, beef, bacon, and corned-beef. Additionally, mixed meat and vegetables were also canned and included beef stew (a favorite of the soldiers from the Civil War through the Philippines Insurrection), meat stew, and corned-beef hash. Canned meats were supplemented by other canned foods and included desiccated potatoes, desiccated onions, mixed vegetables, cabbage, tomatoes, milk, various fruits and jelly.[8]

Additionally, hard bread (hard tack), rice, beans (preferred over rice by the soldiers), flour, sugar, coffee were issued. These types of rations were available from stocks in depots in Manila and San Francisco.[9]

The Commissary Department also depended heavily on local purchase. High on the list of prized food items included any type of fresh meat or vegetables. The quality varied throughout the Pacific. The meats and vegetables obtained in the Philippines and China were of poor quality. Therefore, meats and vegetables were shipped from Australia, Japan, India, and the United States. Of course, if they were the only thing available, local fresh meats and vegetables were preferable to canned.[10]

Besides food, the Commissary Department also handled health and welfare supplies for the soldiers. Examples of these types of supplies included: spices and sauces and other items to improve the taste of the rations; cigars, tobacco and pipes; toilet soap and laundry materials; tailors' materials; stationery; mineral waters, toilet articles and sundries and other items to provide for the health and welfare of the troops. The Commissary Department could also buy alcoholic beverages (beer, wine, and whiskey). All these items were sold to the soldiers and other authorized patrons such as key U.S. government officials and various American civilians.[11]

The Commissary Department also handled ice and had a distribution allowance of 100 pounds per company (150 men). Full time Commissary officers worked for the Commissary Department at division level and higher. These were individuals who saw to the purchase, storage, and

shipment of the rations. The transportation of rations was furnished by the Quartermaster Department.[12]

Commissary Department operations were centrally planned and decentrally executed The Commissary General, in the United States, would assign personnel to support an operation, coordinate shipment of rations from the United States, and identify sources of local purchase in theater. The commissary personnel would than execute the subsistence plan based on the concept and resources furnished by the Commissary General. Commissary officers normally worked independently of the troops in the field and can be considered commodity managers. The commissary officer would coordinate and execute the establishment of necessary support depots. The actual work done at this level was performed by either United States of local national civilian employees.[13]

QUARTERMASTER DEPARTMENT

The Quartermaster Department was responsible for transportation and general supplies. Providing transportation to United States forces was the most important role of the Quartermaster Department. In 1900, the Transportation Department was a subordinate element of the Quartermaster Department and not a separate department as it is today. The Transportation Department was divided into a water and a land branch.[14]

The water branch was called the Army Water Transportation Service. It was responsible for buying or chartering transport vessels as well as tug boats, lighters, and other smaller vessels required to load and off-load the transports and distribute supplies through the various islands in the Philippines. They were also responsible for the loading and off-loading of the vessels. Normally, there were a few trained quartermaster officers who coordinated these functions while most of the work was done by hired civilians.[15]

The land branch was called the Army Transportation Service. This branch had the greatest impact on the distribution of supplies. Once the supplies were landed they were moved to forward depots by civilian contractors. The quartermasters would use rail or river boats to move the supplies. If these wer unavailable, they would contract for the wagons that would be driven by civilian teamsters. If wagons were not available, mules, carriers, or other forms of transportation would be used.[16]

In addition to transportation, the Quartermaster Department also handled the procurement and distribution of uniform and non-weapon equipment items for soldiers. Some examples of these type items included shoes, clothing, blankets, cots, bedding, tents, and other items. In modern supply classification, these would be Class II items.[17]

The Quartermaster Department was also responsible for fuel or Class III using the modern supply classification system. In 1900 fuel came in four types: coal, wood, oil, and fodder. Coal was primarily used for Army steamships, locomotives, and heating. Wood was used for heating and cooking. Oil was used for heating and light (includes natural gas in developed areas). Fodder, also referred to a forage, was perhaps the biggest fuel problem for the Quartermaster Department.[18]

A horse required 26 pounds of fodder per day. Each mule required 23 pounds per day. These animals, which were procured by the Quartermaster Department, were a crucial link in the wagon/pack mule dependent distribution system. An escort wagon held 2000 pound of supplies. Therefore, one wagon could support 87 mules a day. Each wagon was drawn by six mules. Therefore one wagon was required per day for each 14 wagons used by a force just to keep the other 14 wagons in operation.[19]

Fodder consisted primarily of hay and oats. The fodder was locally purchased whenever possible. If not available, it was shipped from the United States or another international source. Supplies of fodder were supplemented by grazing. The land transportation branch ensured the animals were fed. They also contracted for veterinarians to see to the medical care of the animals.[20]

The Quartermaster Department was also responsible for buildings. It obtained barracks for the troops, office space for the headquarters, and warehouse space to store supplies. It also handled the lumber, nails, and other supplies required for building construction (Class IV). The Quartermaster Corps staffed repair shops, primarily with civilian employees, to repair wagons, clothing, harnesses, and other types of quartermaster equipment.[21]

The Quartermaster Department was also responsible for purifying water using distilling apparatus for sea water and sterilizers for fresh water. They also were responsible for burial and transportation of remains. They also procured wagons, ships, boats, animals and other major items required to operate the transportation system (Class VII).[22]

Like the Commissary Department, the Quartermaster Department was centrally managed. However, logistics support was executed on a decentralized basis by professional quartermaster officers. Quartermaster officers would be assigned to support an operation. These officers would arrange transportation and establish the necessary depots to accomplish the support mission. The quartermaster officers managed supply operations but would hire civilians to perform the actual work. Funds and direction for the Quartermaster Department operations were provided by the Quartermaster General.[23]

ORDNANCE DEPARTMENT

The Ordnance Department was responsible for arming the force. It developed, purchased or manufactured, issued and repaired weapons, ammunition, and accoutrements such as bayonets, canteens, haversacks, and cleaning kits. It did this at civilian operated depots and arsenals managed by ordnance officers or by commercial contractors. Units in the field had little or no ability to repair broken weapons. Weapons that couldn't be repaired were replaced from extra weapons accompanying the unit. The broken weapon was evacuated to the nearest ordnance depot or arsenal.[24]

Responsible to the Chief of Ordnance, the ordnance officers in the field executed a centrally planned program for arms and ammunition resupply. It was the ordnance officer's job to get ammunition and weapons to forward depots or supply bases where they could be drawn by the units requiring them. In the Pacific, the main ordnance depot was in Manila.[25]

MEDICAL DEPARTMENT

The Medical Department operated field and other hospitals, treated casualty and evacuated them, and a medical supply system. The integration of these functions was called the Letterman System that was developed during the Civil War. The personnel in the medical department were divided into two corps. The doctors or surgeons

formed the Army Medical Corps. The enlisted soldier that assisted the surgeons were members of the Army Hospital Corps.[26]

Soldiers evacuated from regimental hospitals went to the next level of care at a field hospital. A field hospital generally had a holding capacity of about 100 beds. A field hospital was designed to operate out of tents but often operated in fixed facilities. This type hospital was commanded by a surgeon who had an assistant surgeon as his executive officer. The treatment capability was augmented by two to four civilian contract surgeons hired by the Army.[27]

The last place in the area of operations that soldiers would be treated was at a base or general hospital. Averaging 300-400 beds, the base hospital would collect casualties from the field hospitals.[28]

Casualties whose injuries required further evacuation were placed on hospital ships for in-theater treatment. Casualties not expected to recover in a reasonable amount of time, if at all, were evacuated to the United States on quartermaster transport ships. From Pacific locations, they were sent to hospitals in San Francisco where they were treated and eventually discharged from the Army.[29]

The Medical Department purchased its own medical supplies and shipped them to subordinate elements around

the world. The Medical Department had funds for the local purchase of supplies to meet the needs of its hospitals. In the Pacific, in cases where supplies were late or unavailable from the United States, the Medical Department would purchase drugs and other supplies from Hong Kong, Japan, China, or other sources.[30]

The Medical Department was still heavily reliant on the other logistics departments for supplies, services, and especially transportation. The Medical Department requested non-medical supplies through the Commissary, Quartermaster and Ordnance Departments. These supplies ranged from food, clothing, and accoutrements to other equipment such as beds, litters, and ambulances.[31]

One of the major hindrances to medical operations was the reliance on the Quartermaster Department for transportation. Besides transporting supplies, the Quartermaster Department also allocated ambulances and wagons required to evacuate patients and move hospitals. Conflicting priorities between the quartermaster transportation services often resulted in operating difficulties for the Medical Department.[32]

This transportation problem became even more serious where it concerned the evacuation of patients. At the regimental level, a regiment was normally authorized four horse ambulances for moving the severely wounded and a Dougherty wagon to move ambulatory casualties. In action,

casualties were evacuated by their fellow soldiers on liters to a collection point. The Halstead liter was the primary liter used. This was made of canvas between two ash poles. It had iron braces, iron legs, and shoulder carrying straps. In other cases, especially for short engagements, casualties were left on the field and picked up by ambulances following as closely as possible.[33]

Casualties picked up by Quartermaster Department ambulances were taken to field hospitals. From a field hospital, the Quartermaster Department would use a variety of means, to include boat, rail, and wagon and ambulance, to move casualties. Type of means used depended upon their availability. As with the rest of the logistics system in 1900, there were insufficient Medical Corps personnel to accomplish the mission without assistance.[34]

Colonel Charles R. Greenleaf, Assistant Surgeon in the Philippines, recommended a ratio of medical support to troops in theater at 5% of the total force. This ratio assumed that infantry and cavalry personnel would still assist in the evacuation of casualties and with their treatment, especially at the regimental and field hospitals. This ratio was not reached in the Philippines in 1900.[35]

In addition to casualty evacuation, the Medical Department was also involved in sanitation and preventive medicine to help maintain the health of the force. This as

normally accomplished as a collateral duty by the surgeons in the various units or districts. This included monitoring disease and its causes.[36]

OTHER DEPARTMENTS

While the Commissary, Quartermaster, Ordnance and Medical Departments were the primary logistics bureaus, these departments relied on the Engineer, Paymaster and Signal Departments to accomplish their missions.

The Engineer Department was responsible for roads and other civil works, field fortification, and sapper operations. The engineer civil works function impacted on logistics because harbor improvement, road construction, railroad repair and construction were all required to support logistics operations.[37]

Other engineer functions that impacted on logistics operations included drilling wells for water and suppling maps. Wells were required in the absence of above ground water sources and maps were required both by logisticians as well as operational commanders.[38]

Troops were paid by the Paymaster Department. The Paymaster Department was also important in the area of local purchase. Purchase of supplies and services often required hard currency (gold and silver). While United States gold and silver currency were accepted in China and the Philippines, the main form of currency used in both places was the Mexican dollar, worth about 50 cents in

American currency. The Paymaster Department assisted the other logistics departments to obtain the proper funds.[39]

The Signal Department was responsible for communications. It had its own supply system to obtain signal related items such as telegraph wire, poles, and telephones. The Signal Department maintained communications using semaphore flags and heliograph lights; however, its primary responsibility was the installation and operation of telegraph systems.[40]

The operation of these departments had change very little since the Civil War. The logistics departments provided support to tactical formations, however, they were responsible to their department chiefs in Washington. These department or bureau chiefs reported directly to the Secretary of War. While logistics support of our forces received a black eye during the Spanish-American War, the short duration of the war was hardly enough time to get the logistics system functioning smoothly.[41] By 1900, the Army logistics system was functioning smoothly.

STRUCTURE OF ARMY ORGANIZATIONS

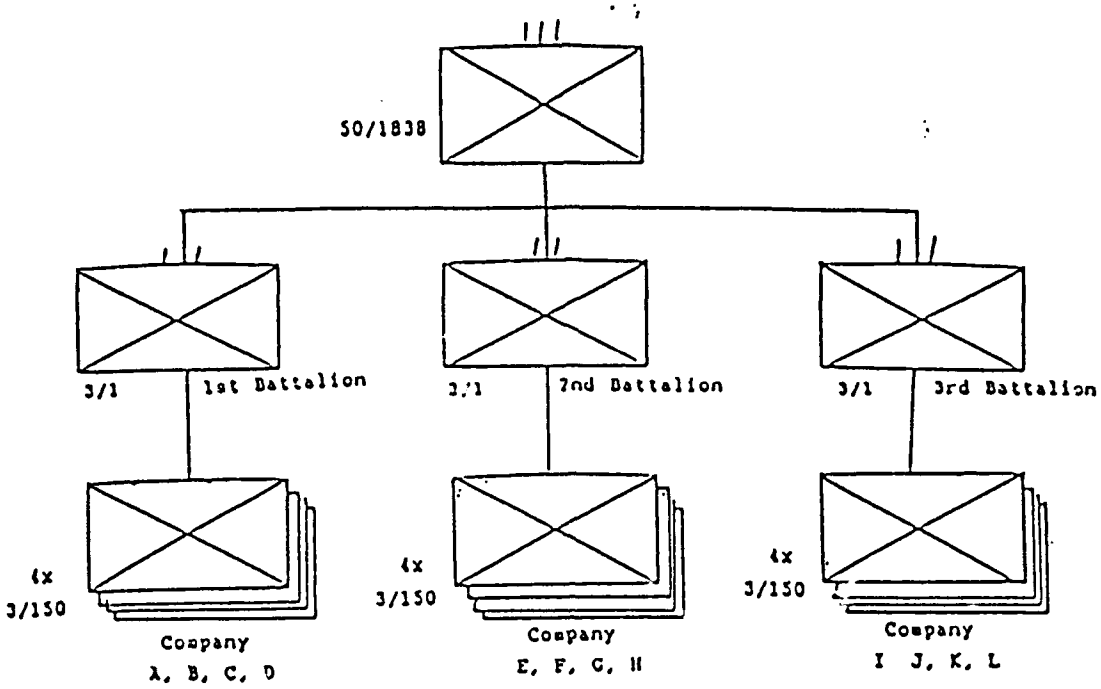
To understand Army logistics at the end of the Nineteenth Century , it is first necessary to understand how the tactical structure executed military operations and second, how the logistics departments supported the tactical forces. The United States Army's largest tactical organization was the corps. However, the last time a corps

had been organized was General William R. Shafter's V Corps during the Spanish American War.[42] Prior to this time, corps had been used in the Civil War. Corps were made up of two to four divisions. A division was the largest unit organization in the Pacific in 1900. A standard division had two brigades made up of two to four regiments each. In the Philippines, the Division of the Philippines under General MacArthur, was more like a corps in size and scope.

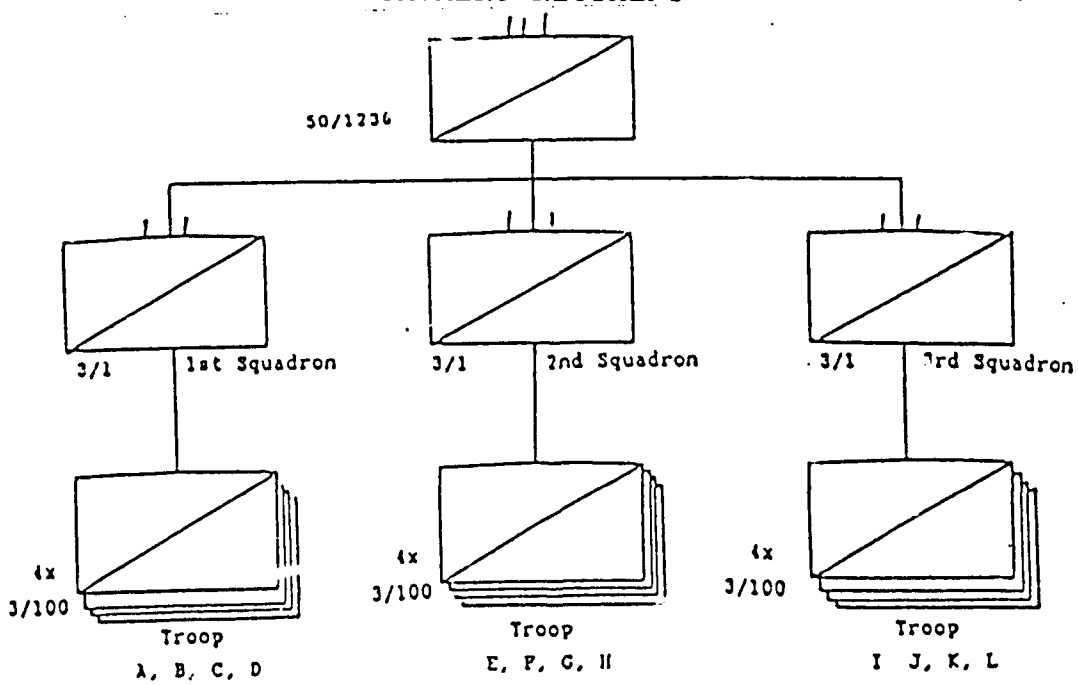
The basic building block of the division was the regiment. Regiments came in three basic types, infantry, cavalry, and artillery. Because artillery normally operated only on a battery or company size level, this section discusses only the infantry and cavalry regiment organization and that of the supporting artillery battery.

Though infantry and cavalry regiments had different functions, their organizations were similar. Both kinds of regiments had a headquarters staff and special troops. Both kinds of regiments had 12 companies or troops organized into three battalions of four companies each. Each cavalry troop had about 100 men; each infantry company had about 150 men. Regiments of this era were rarely at full strength. A typical infantry regiment ranged in strength from between 24 and 35 officers and 1218 to 1594 enlisted men for a total strength ranging between 1242 and 1629. A cavalry regiment was smaller, ranging in size between 1087 and 1293 officers and men.[43]

INFANTRY REGIMENT



CAVALRY REGIMENT



A typical regimental staff had about five officers and 35 enlisted men. The regimental commander was normally a colonel who had a lieutenant colonel as an executive officer. Several captains served as adjutant, quartermaster, and commissary officers and performed personnel and logistics functions for the regiment. Depending on the mission of the regiment, officers from companies within the regiment and officers from other regiments often augmented the regimental staff.[44]

When a regiment went into action, it would receive additional personnel from the Army Medical Department. The senior doctor attached became the regimental surgeon for that regiment. The other personnel in the regimental headquarters included a band and some logistics non-commissioned officers as well as the regimental sergeant major.[45]

Battalion or squadron headquarters were smaller than a regimental headquarters. Battalion and squadron headquarters normally consisted of a major as the commander with an adjutant, and a commissary/quartermaster officer. They also had a battalion sergeant major.[46]

The major differences between the infantry and cavalry regiments was in mobility and sustainability. The infantry was foot mobile. However, each soldier only required four pounds of supplies per day. Due to fodder requirements, it took 30 pounds of supplies per day to

maintain a cavalrymen. While cavalry was more mobile, a cavalry regiment in the field required almost eight times the supplies needed by an infantry regiment.[47]

This difference in supply tonnages is reflected in the transportation assets allocated to an infantry and a cavalry regiment by the quartermaster. The number of wagons in a regiment differed from unit to unit. The ideal number of wagons was 30 per 1000 soldiers, however, normal units only received 20 wagons. Using the 9th Infantry Regiment as an example, an infantry regiment would normally distribute its allotment of 20 wagons as follows:

Food/Fodder for an infantry regiment	8 Wagons
Regimental Organizational Equipment	6 Wagons
Small Arms Ammunition for Regiment	3 Wagons
Commissary Sales items	1 Wagon
Hospital/Medical Supplies	1 Wagon
Personnel Transportation	1 Wagon[48]

A cavalry regiment had the same wagons allotted to an infantry regiment plus 15 or more additional wagons due to the fodder requirements. The Quartermaster Department supplied these wagons; however the number and type of wagons supplies varied based on the ability of the horses and the soldiers to live off the land.

There were several types of wagons. The largest wagons, called truck wagons, were pulled by six horses and could carry 3500 pounds of cargo. To be effective, these wagons required required solid terrain or good roads . The smaller escort wagons was the standard type assigned to

regiments. They were pulled by four horses or six mules. Escort wagons transported 2000 pounds of cargo. Regimental logistics personnel marked the wagons according to the type of supplies they carried. Dougherty wagons transported personnel. They were pulled by four horses and had benches in the cargo beds to carry about ten soldiers.[49]

The weapons available to both the infantry and cavalry regiments were similar. Soldiers in the Regular Army were armed with the Krag-Jorgensen, .30-40 caliber, five-shot magazine rifles. Volunteer units were armed with .45-70 single shot Trap-door Springfield breech loaders. The Springfields were provided with a new brown powder, semi-smokeless, round. For both type weapons, infantry soldiers were provided with the standard versions. The cavalry were issued a shorter and lighter carbine version.[50]

If appropriate to the tactical situation, the Ordnance Department could issue an infantry or cavalry regiment up to two Model 1877, 10-barrel, Gatling guns. The Gatling guns assigned were the only heavy weapons operated by personnel in the regiment. This wheel mounted, hand cranked, machine gun fired a .47-70 black powder round.[51]

Artillery was organized into regiments that had 12 batteries. However, these batteries were scattered throughout the world. As a result, in most cases, the

regimental headquarters was administrative and not tactical in nature. Batteries routinely operated independently in support of infantry and cavalry regiments. A light battery had five officers and 146 enlisted soldiers. The main army field gun was the 3.2 inch breech loading gun.[52] A battery had six 3.2 inch guns, 9 caissons, 1 battery wagon for organizational equipment, 2 escort wagons for ammunition and fodder, 96 horses, and 8 mules.[53]

LOGISTICS AT BRIGADE LEVEL AND BELOW

Professional logistics personnel were not normally available at brigade level staffs and below. The Quartermaster, Ordnance, and Commissary Departments normally provided trained logistics personnel down to division level organizations (the Medical Department did provide personnel down to battalion and company levels). These personnel would coordinate with their respective logistics departments and the division commander to coordinate logistics support. There were not enough of these personnel available to do the same for brigades, regiments, and battalions.

Logistics operations at brigade level and below was accomplished by junior combat arms officers assigned as unit commissary or quartermaster. These were not normally the finest officers in the unit. However, the effectiveness with which the officers performed their duties varied from unit to unit.[54]

Each squadron or battalion was authorized a first lieutenant to fill both the positions of commissary and quartermaster officer. Each brigade and regiment was authorized a captain for each position. Normally, only lieutenants held the positions. Often the quartermaster and commissary officers were not informed about impending operations and this lack of knowledge detracted from the support provided. At company, troop or battery level there was an orderly or quartermaster sergeant who took care of the requirements of his unit.[55]

Officers were managers and coordinators of logistics. They arranged for local purchase of supplies or requisitioned supplies from the nearest commissary, quartermaster, or ordnance depot. These supplies would then be picked up by the units using transportation assets attached to the unit by the Quartermaster Department.[56]

In 1900, there were no quartermaster or ordnance units. The majority of the physical work was performed by details of soldiers. These soldiers loaded and unloaded wagons provided by the Quartermaster Department, assisted in the hospitals provided by the Medical Department, and distributed ammunition and rations provided by the Ordnance and Commissary Departments.[57]

At brigade level and below, the wagon train was the responsibility of the quartermaster and commissary officer. Each controlled the wagons carrying their own

supplies. The wagons had an operational radius of about 150 miles based on fodder requirements for the animals. At distances over 150 miles, the animals would eat more than they could transport.[58]

On the American frontier and in the Philippines, roads were poor. To increase tactical mobility, units used American pack mules capable of carrying 200 pound of supplies each. Normally, each cavalry squadron would get a mule train consisting of 50 mules. A mule train could carry the same amount of supplies as three escort wagons and had the advantage of being as mobile as the troops they supported. Overseas, American mules were supplemented by native mules and ponies capable of carrying between 85 and 150 pounds. Native animals also had the advantage of not requiring special fodder. Wagons were always in short supply so local carts and wagons, normally of inferior quality and carrying capacity, were also pressed into service. These other modes of land transportation routinely supplemented or replaced standard wagons.[59]

Wagon repair was limited to greasing wheels and replacing some parts. Parts were not uniform and normally required special fitting by a blacksmith. During field operations, if a part was not available or if the repair exceeded the unit's repair capability, the wagon was either abandoned or evacuated to a depot level repair facility. Parts on wagons, even from the same manufacturer, were not

necessarily interchangeable. Each soldier was responsible for the care of his own wagon and animals. A soldier was often required to feed his horse or mule before he ate himself. Veterinary care for animals was contracted.[60]

Supplies would be drawn for a brigade, regiment, battalion, and company in bulk quantities. They would then be divided to the quantity of the next lowest unit and issued in turn to that unit in bulk. Once the supplies reached company level, they would be broken into individual quantities. Units were concerned primarily with combat supplies such as food, fuel, ammunition, and medical supplies. Other supplies and services were obtained only as required.[61]

For rations, the orderly sergeant of each company would divide the company ration among the soldiers in the company. The men would normally divide up into groups of six to ten and would rotate the cooking duty unless one talented individual was informally designated the permanent cook. All the work done to break and distribute rations was performed by details of soldiers from the unit receiving the supplies. The commissary officer and company orderlies were responsible to provide these details from their own unit.[62]

Ammunition was distributed in similar manner to rations. Each regiment had an ordnance sergeant. This sergeant insured the supply of ammunition. Ammunition

would be issued to battalions and companies through the quartermaster officer and company orderlies. Details of soldiers helped in the distribution. Each soldier normally carried 100 rounds in a double looped cartridge belt. It was common practice for a soldier to carry an extra 20 to 40 rounds in his pocket or haversack. Some of the escort wagons would carry ammunition. If available, pack mules were dedicated to ammunition carrying because they were more versatile in resupplying units in remote positions. Besides the 100 rounds carried by each soldier, 400 rounds were kept in reserve. The reserve was distributed evenly between the regimental supply trains and ordnance depots supporting the unit.[63]

Artillery batteries normally carried about 20 to 40 rounds with each gun. The 3.2 inch gun had solid shot, canister shot, and high explosive shells. They carried a mix depending on the situation. Normally, each gun had about 500 rounds in reserve stocks.[64]

At the regimental level was a regimental hospital. This hospital was operated by the regimental surgeon or his assistant surgeon and was manned by hospital stewards and other less skilled privates in the Medical Corps. These personnel were not permanently assigned to the regiment but were attached as required by the situation. The capacity of a regimental hospital normally averaged around 25 beds.[65]

The regimental hospital's mission was to stabilize casualties and prepare them for shipment to the next level of care. The regimental hospital also provide medical personnel to the front lines for immediate treatment of casualties.[66]

Battlefield casualties were initially treated by their fellow soldiers using a first aid package every soldier carried. Casualties were then evacuated from the front line by a combination of detail soldiers, Hospital Corps personnel, and ambulances from the Quartermaster Corps. These ambulances were under the direct control of the regimental surgeon in the regimental trains as were the medical supply wagons. However, both ambulances and medical supply wagons were provided and maintained by the Quartermaster Corps.[67]

NAVAL FORCE LOGISTICS

The Navy played a major role during the Boxer Rebellion. Between May and June 1900, all the United States forces involved were naval. While the focus of this study is on Army ground force logistics, it is important to discuss the basics of naval logistics in the Pacific because the Navy logistics system had an impact on Army as well as Navy ground operations.

The Asiatic Squadron was the Navy's primary force in the Pacific. It consisted of numerous battleships, cruisers, and gunboats. These ships could project power on

shore by landing parties. Ships personnel fighting on the land were organized into a ship battalion.[68]

These units were battalions in name only. The size and organization of the ship battalion depended largely on the size of the ship but normally ranged between 80 and 120 sailors and marines. Companies were organized based on the battalions strength and officers available to command them. Sailors who fought with the marines as members of the ships battalion were called "blue jackets".[69]

A ships battalion would be supported from ships stores for food and ammunition. Other requirements would be purchased in the local area by the ships paymaster. The ships battalion lacked transportation to move supplies or guns. It was normally to small to justify the Navy sending a supply ship to replenish the battalions supplies. Due to the limited logistics staying power of the ships battalion, most missions performed by it were of short duration. Just how long they could operate depended on the quantity of supplies on board ship and the availability of supplies on shore.[70]

Weapons for the ships battalion included the small arms in the ships weapons locker and field pieces dismounted from the ships firing batteries. The Navy was equipped with the Lee, straight-pull bolt action, smokeless, 6 millimeter, five-shot magazine rifles. Some older ships had the .45-70 black powder Hotchkiss.[71]

Machine guns and artillery were removed from the ships and were operated by sailors. The primary Navy machine gun of the era was the Model 1895 Colt "Potato Digger", called so because, if the gun were mounted close to the ground, the charging handle churned up the ground as the gun fired. This was a belt fed weapon that fired the same 6mm round as the Lee. The artillery consisted of a 3 inch field gun.[72]

The Marine Corps used the same equipment as the Navy. Its logistics organization at unit level was identical to that of the Army. However, Marine units were normally not larger than battalion. Battalion strength varied between 130 and 450 men. Marines contributed to a ships battalion as well as to pure Marine battalions. By 1900 the Marine Corps had just begun experimenting with a provisional three battalion regiment.[73]

Ammunition, food, and clothing were taken from ships stores. Supply, finance, and medical support for the Marine Corps was normally provided by the Navy. Medical aid men who accompanied marines during the Boxer Rebellion, as today, were sailors.[74]

INTEROPERABILITY OF ARMY AND NAVY LOGISTICS

Cost savings was the primary reason for cooperation between the two logistics systems. An example of this is the Navy transporting meat to the Philippines for subsequent distribution by the Army Commissary Department.

The Marine Corps in the Philippines received ration and other support from the Army.[75]

Both services had the capability to act totally independently. Both the Army and the Navy had their own transport fleets, their own Medical Departments, their own hospital ships, and their own supply depots. An Army unit wanting support from the Navy often had to submit its request through the War Department to the Navy Department and then back down the naval chain of command.[76]

SUMMARY

On the eve of the Boxer Rebellion, the United States' logistics system was remarkably unchanged in organization and procedures from the days of the Civil War. However, it was a logistics system that was fully capable of deploying and sustaining large ground forces for combat operations. The initial buildup for the Spanish-American War and the Philippines Insurrection had caused as rapid expansion of logistics capability. The logistics system was headed at the top by professional logisticians. At division level and above, logistics was managed by professional logisticians in the logistics departments. The work was accomplished by civilian employees. Below division level, management of logistics was accomplished by a few attached professional logisticians and a large number of infantry and cavalry junior officer temporarily occupying logistics jobs. All

logistics operations at this level involved a large number of soldiers taken from line units to perform logistics functions. In comparison, the Navy had a logistics system similar but detached from the Army's. This complicated joint ground operations. Despite flaws, the logistics system in place was to prove more than up to the job of supporting our force in the China Relief Expedition.

ENDNOTES

CHAPTER THREE

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CHAPTER FOUR

CRISIS IN CHINA - SPRING 1900

INTRODUCTION

From 28 May, when a legation guard was initially requested, until 26 June when Admiral Seymour's force returned to Tianjin, United States operations against the Boxers to protect American lives and property were primarily naval in nature. They can be characterized by hasty, poorly planned, but brave attempts to rescue United States citizens and the other foreigners under siege at Beijing and Tianjin. Logistics capabilities of all the nations were extremely limited during this phase and primary reliance was on the logistics assets already in the area of operations.

In this chapter, Phase I logistics operations will be discussed. For Beijing, logistics remained the same through the legation's relief on 14 August 1900. For simplicity, all aspects of logistics at Beijing during the

siege will be discussed in this chapter. Additionally, the logistics of the Seymour Expedition and the first siege of Tianjin will be discussed up to the date of Seymour's return to Tianjin on 26 June 1900. For each operation, after a brief operational discussion, information will be grouped by type of supplies or logistics function that was being performed.

During this phase, a polyglot force of marines and blue jackets from eight nations fought together and cooperated on logistics matters. This response included military precautions that resulted in the initial deployment of United States forces into North China. The discussion will then focus on the support of these forces prior to the arrival of the main United States forces.

BOXER ACTIVITIES

The anti-foreign activities of the Boxers were well known to the United States minister in Beijing, early in 1900. No military action was felt necessary as long as they confined their activities to terrorizing Chinese Christians in the country side. By the spring of 1900, Boxer attacks had moved closer to Beijing. Initially, it was felt that simply stationing United States warships off the Chinese coast would be enough to deter the Boxers.

The ministers in the Legation Quarter of Beijing felt safe under the protection of imperial troops as late as April 1900. In May 1900, events took place that would

change the minds of the ministers. On 26 May 1900, Mr. Conger was told by the acting Secretary of State that if he felt the safety of the United States Legation was threatened, he could coordinate directly with the Navy off Dagu to obtain a legation guard.[1]

On 28 May 1900, many railway stations in the vicinity of Beijing were attacked by Boxers and seriously damaged or destroyed. Among these was the crucial station of Fengtai. Here, the Baoding line and the Beijing-Tianjin line connected. The attack temporarily closed both. The ministers of the eleven foreign powers, seeing their line of communications threatened, requested a legation guard.[2] This request for a legation guard set in motion the events of the first phase of the China Relief Expedition.

DEPLOYMENT OF NAVAL FORCES

The deployment of naval forces was in response to crisis messages sent by Mr. Conger on 26 May. At this time, the majority was stationed in the Philippines and Hong Kong. Admiral Remey was at Cavite. Admiral Louis Kempff, only had the cruiser Newark, his flagship, and the gunboat Monocacy assigned to him permanently. On 26 May, the Monocacy was off Shanghai. The Newark and the battleship Oregon, which was temporarily assigned to Kempff's command, were at Nagasaki, Japan.[3]

After Kempff received the request for help from Mr. Conger, he ordered a 25 marine detachment to go to the Newark from the Oregon and departed Nagasaki for Dagu during the afternoon of 26 May 1900. Kempff got underway in such a hurry, that he left Captain Bowman H. McCalla, the Newark's Captain, ashore with some of his officers. Captain McCalla saw the Newark departing and quickly borrowed a steam launch from the Oregon. He caught the Newark before it cleared the harbor.[4]

The Newark arrived off Dagu late in the afternoon of 27 May. This was two days faster than army transports would make the trip! The Newark, with a draft of 18 feet, could not cross the Dagu bar (even at high tide) and anchored 12 miles off shore. This began the first of many problems to come with Dagu harbor. Early in the morning of 28 May 1900 the United States naval ground forces began to land. Their mission was to protect the United States Legation at Beijing and the American community at Tianjin.[5]

The first group off the Newark was the guard planned for the Beijing legation. Fifty-four marines left the Newark at four o'clock in the morning and were taken by steam launch to Dagu and then on to Tanggu. Sixty-two blue jackets followed at 7:30. The entire force was under the command of Captain McCalla. Captain McCalla was to be the

commander of the land component while Admiral Kempff controlled the overall operation from the Newark.[6]

The troops and supplies were landed using a steam powered cutter and a sail launch. Here again, the Dagu bar was a problem. While the marines landed at Tanggu without incident, the blue jackets ran into trouble. The blue jackets departed for Dagu about four hours after the marines. Without a pilot knowledgeable of the harbor, the steam launch ran aground on the bar about three miles from the Newark. Attempts at transferring men and cargo to the sail launch failed. So did attempts to sail or pole the launch through the mud. Finally, all the sailors had to wait until the tide rose. The result of these difficulties was it took the sailors five and a half hours to reach Dagu. By one o'clock, Captain McCalla had his entire force at Tanggu.[7]

Despite the request of the foreign ministers for a legation guard, the Chinese government had not yet granted permission for foreign troops to come to Beijing. This resulted in Captain McCalla's men being denied permission to take the railroad to Tianjin. Determined to move on to Tianjin, a steam tug and coal lighter were chartered. Marines, blue jackets, two Colt machine guns, a 3 inch naval field gun, and additional supplies were loaded into the dirty coal barges for a miserable ten hour trip up the Hai He to Tianjin.[8]

Captain McCalla and Paymaster H.E. Jewett, USN, were there to greet the marines and sailors. They were allowed to take the train to Tianjin to arrange billeting for the troops. Captain John T. Meyers, USMC, was placed in charge of the river move. The troops from the Newark arrived at Tianjin at 11:00 P.M. After unloading the tug and lighter by hand, both personnel and equipment were moved into the American Mission and Temperance Hall in the foreign concession area.[9]

Despite Captain McCalla's desire to move a marine legation guard to Beijing immediately. The Chinese government refused to provide transportation. Therefore, the troops stayed in Tianjin through 31 May 1900. During the wait, troops of Great Britain, Germany, France, Austria, Italy, Russia, and Austria arrived. By 31 May 1900, the constant pressure of the foreign ministers in Beijing forced the Tsungli Yamen, a court of the Chinese government that dealt with foreign affairs, to allow a legation guard of 30 soldiers per legation. On 31 May, a special train was authorized to transport these troops from Tianjin.[10]

The allies ignored the Chinese government's restrictions and sent a combined total of 450 marines and sailors to Beijing. The United States sent 55 marines and sailors and a wheel mounted Col machine gun as a legation guard. They were accompanied by Captain McCalla, Paymaster

Jewett, and another officer who would see to the billeting of the United States forces left at Beijing. The train with the legation guard departed Tianjin at 4:15 P.M. It arrived at Majiapu station at 9:00 P.M. 31 May 1900. From there the guard walked two miles to the Chinese section of Beijing and then another two miles through crowds of watching Chinese to the Legation Quarter. They arrived at about 10:00 P.M. The legation had arranged for local carts to transport the troop's equipment. This completed the initial deployment of United States forces.[11]

After the legation guard was settled in Beijing, Captain McCalla and his two officers returned to Tianjin on 2 June 1900. Captain Meyers was left in charge of the legation guard. This was the last train to Tianjin before the railroad was permanently cut on 4 June 1900.[12]

With each passing day the situation in north China continued to deteriorate. The Boxers cut the rail line to Beijing and their violence moved closer to the foreign communities in both Beijing and Tianjin. Seeing what was happening, Admiral Kempff deployed additional forces. The United States had 55 marines and sailors in Beijing. Sixty-two blue jackets were in Tianjin. To be in a more secure position and obtain better quarters tney moved their billets from the Temperance Hall to the compound of the American Board Mission. An additional 50 blue jackets were landed from the Newark and moved to Tianjin by boat.[13]

On 10 June 1900, the Monocacy received orders in Shanghai to deploy to Dagu. After loading up on food, coal and water, the Monocacy departed Shanghai at 1 P.M., 11 June 1900. It arrived off Dagu at 8 P.M., 14 June 1900, and being of shallow draft, crossed the Dagu bar and docked at Tanggu on 15 June 1900. The Monocacy sent 21 blue jackets to Tianjin by rail while her Captain, Commander F.M. Wise, remained at Tanggu, where he would play a vital logistics role during the early stages of the campaign.[14]

On 5 June 1900, Admiral Remey, in the Philippines, decided to send additional forces to help Admiral Kempff. The cruiser Nashville, with 30 marines and the hospital ship Solace, with 139 marines were ordered to report to Admiral Kempff at Dagu. These marines formed a "battalion" commanded by Major Littleton W.T. Waller. They set sail from Cavite on 12 June 1900. The battalion arrived off Dagu on 18 June 1900. They had only one 3 inch naval gun and a Colt machine gun. These forces went into action almost immediately as by the time Waller's marines had arrived, Tianjin had been cut off from the coast.[15]

By 18 June 1900, Admiral Kempff had landed a total of 349 officers and men as well as two 3 inch guns, three Colt machine guns, and one old Gatling gun from the ships off Dagu. This force was scattered between Beijing, Tianjin, and Dagu. However, the situation continued to

deteriorate. On 8 June 1900, telegraph communications was lost with Beijing.[16]

While naval landing forces were fighting on the ground in June, it became clear to President McKinley and the leaders of the other powers, that the situation in China was beyond the capability of only naval landing forces. President McKinley directed that elements of the United States Army be sent to China from the Philippines. These forces would not start arriving until July. Their deployment started in the spring and represented the overlap between Phase I and Phase II.[17]

The first phase of operations saw the breakdown in communications between Beijing, Tianjin, and Dagu/Tanggu. Given the already limited logistics assets in China at this time, this situation created serious logistical problems. Operations went forward in four areas during this period and logistics support was required for all of them. First, there was logistical support for the marines in Beijing. Second, there was logistical support for Admiral Seymour's unsuccessful Beijing relief attempt. Third, there was logistics support at Tianjin. Lastly, there were operations to open and keep open the lines of communication open between Beijing, Tianjin, and Dagu.

LOGISTICS AT BEIJING

The logistics system used at Beijing in the spring of 1900 lasted until the end of the siege and was an

excellent example of international logistics cooperation and team work. This cooperation did not occur over night. When the legation guards arrived, each nation took care of its own troops. It was widely felt that the presence of the troops would be enough to deter Boxer attacks on Europeans. The legations continued to support themselves by living off the various European stores and Chinese shops in and around the Legation Quarter.

Shortly after the arrival of the legation guards, the situation in Beijing became more difficult. The telegraph to Tianjin was cut and railroad stations as far south as Yangcun were burned. On 9 June, the Boxers burned the international race course. This, although primarily psychological, greatly worried the foreign community in Beijing. It caused the foreigners to speed their assembly in the Legation Quarter. The legations still had communications with the outside world until 13 June 1900, via a Chinese telegraph that ran into Manchuria, and then on to Russia. This link; however, was of little tactical use, but it did allow the ministers to sent their concerns to their home governments.[18]

On 17 June 1900, the allied fleets attack the Dagu forts. On 19 June, the Chinese government demanded the foreign ministers leave Beijing within 24 hours. The ministers decided to stay. On 20 June 1900, the German minister was killed and the legations went under full

siege. Immediately, the logistics situation became more critical.

During the siege, food and water were a major concern. Upon arrival in Beijing, Mr. Conger, lacking room in the American Legation, coordinated for quarters in the rear of the Russian Bank and Imbeck's store. Prior to 20 June 1900, the marines were fed by a Chinese contractor. His contract required him to provide three good meals a day to the marines at a rate of 75 cents Mexican per man per day. The contractor faithfully fulfilled his contract until the siege began on 20 June 1900. When the fighting broke out, the contractor could not obtain food on his own so he stayed on as a cook for the marines and drew the food he needed from the common stocks of all the legations.[19]

The desperate logistics situation caused all the foreigners to come together and cooperate to solve the military and logistical problems they faced. After the fighting broke out, the food supply for the entire foreign community was controlled by committee. Sir Claude MacDonald, the British minister, took overall charge of the defense of the Legation Quarter. The deputy American Minister, Mr. Squire, was MacDonald's second in command. One of the first things done was to form civilian committees to insure the collective survival of the legations. He appointed a fortification staff to build barricades. This committee was headed by an American

Missionary, Dr. Frank Dunlop Gamewell, who was also an engineer. Other committees included ones for public comfort, sanitation, food supply, fire fighting, water supply, and labor. A consolidated hospital was also established.[20]

The food committee took immediate action to set up a consolidated food supply. Foraging parties were sent out. Herds of sheep and cows were brought into the legation area. In addition, 150 racing ponies and mules were brought into stables near the British Legation. The shops and houses near the legations provided enough food to initially fatten the ponies and then sustain them as the siege continued. By slaughtering two ponies a day, it was possible to provide meat once a day to all the 409 foreign soldiers and 473 foreign and Chinese Christian civilians in the legations. These figures do not include the Europeans and Chinese Christians at Beitang (Peitang) Cathedral who were under the protection of the French and the Italians or approximately 2,000 additional Chinese Christians that were within the Legation Quarter's perimeter but not living in the legations themselves.[21]

Chinese grain shops provided over 200 tons (8000 bushels) of wheat as well as large quantities of rice, maize, and other staples along with the mill stones to grind the grain into flower. In addition, stocks from European stores were moved into the British Legation.

Boxes of canned meat, fruits and vegetables; bags of coffee, sugar, cocoa and beans; bottles of beer, wine, whiskey, and bottled water were all brought to the legations' commissary. The commissary was established in the British Legation where all the civilians and the hospital were also located.[22]

Crucial to the gathering of food and other supplies were the European civilian owners of the Beijing Hotel. Mr. and Mrs. Chamots knew the locations of all the warehouses and stores in Beijing. They also knew the European residences of the Legation Quarter and supplies they had on hand. Using this expertise, the Chamots were able to to gather supplies into the commissary for the legations.[23]

The central commissary was not the only source of food during the siege. After the Battle of Tianjin, an uneasy truce occurred in Beijing between 17 July and 10 August 1900. During this truce, on 20 and 27 July 1900, the Chinese government supplied the legations with fruits, vegetables, and ice. The reasons for this gift of food is unclear. However, whether provided by mistake or to help gain better peace terms in case of defeat, the food provided by the Chinese government helped add variety to the bland diet of those under siege.[24]

The food from the Chinese government was also supplemented by fruits, vegetables, eggs and rice, or

varying quality, from local vendors. The vendors insisted on hard currency (lump silver) because they didn't want to be left holding foreign currency should the allies lose. The residents had limited money that was supplemented by other usable funds found in the basements of Chinese homes. Local purchase of food further supplemented rations. In addition, birds and other animals that strayed into the legations were caught and eaten.[25]

In addition to the Europeans, American, and Japanese in the Legation Quarter, an additional 2000 Chinese Christians were within the perimeter. They were crammed into the ruins of Prince Su's Palace, called the Fu, where they fended for themselves for food. To conserve food in the legation commissary, the Chinese in the Fu were not allowed to draw rations from the central commissary. Basically, they ate leaves, bark, and whatever food they could find.[26]

The food situation at Beijing was not as desperate as many accounts state. Not feeding the Chinese in the Fu allowed plenty of food for the troops and civilians in the legations. While the diet was bland and the variety of food was limited, sufficient rations were available for all for at least two weeks longer than the legations were actually forced to hold out. This is based on the tonnages of grain, numbers of horses, and other supplies brought into the central commissary and doesn't include food

provided by the Chinese government or locally purchased food during the siege.

Water was supplied from the wells located in the British Legation. Before the siege, U.S. Marines boiled water prior to consumption; however, as the intensity of the siege increase, they eventually started drinking directly from the wells. This had little impact as only two marines caught typhoid. These cases were not attributed to the water as both cases occurred after the marines had been wounded.[27]

The water in the wells was controlled by a water committee. Prior to the drought ending, drinking water was rationed. This meant water was available only for drinking, cooking, and medical uses. None was available for bathing. After the drought broke on 30 June, these restrictions were lifted. Water required for fire fighting was taken from the canals near the Legation Quarter and two brackish wells in the British Legation.[28]

Health and welfare items were restricted to what the soldiers brought with them or they could get from residence of the Legation Quarter or find in the destroyed homes and shops in the area.[29]

Equipment shortages would plague the marines throughout the defense of the legations. When they deployed, there was little room on the train for extra equipment. As a result, the marines arrived at Beijing

with their rifles, a colt machine gun, and heavy march order equipment. Basically, this was what they could carry on their backs. Their baggage was suppose to be forwarded on a later train. However, the railroad was cut before this could happened. As a result, the marines lacked changes of clothes, extra shoes, and other supplies throughout the siege.[30]

The siege took place in the summer. Therefore, fuel for heating was not a problem. Still, fuel was needed for boiling water, cooking, and lighting. When stores in the area were seized, coal and lamp oil were also taken. These combined with stocks on hand and wood obtained from damaged and destroyed houses was sufficient to meet the fuel requirements of all legation personnel throughout the siege.[31]

The construction of barricades was crucial to the defense of the Legation Quarter. Prior to the start of the siege, Chinese carts were used to block streets and restrict access to the Legation Quarter. As the siege began, stronger barricades were required. These were designed and built by the fortification committee.[32]

Fortifications were constructed and strengthened using a mixture of bricks, beams, trenches, and loopholes in existing structures. There was a major requirement for sand bags. This requirement was met by a variety of means. First, empty grain sacks were used. These were

supplemented by trouser pant legs and any other container to hold dirt. Finally, the women of the legations pooled their sewing machines and the silk and other fabrics from the stores and started manufacturing bags for holding sand at the rate of one every four minutes. These sandbags were crucial for lining the tops of brick barricades and sandbagging windows. Thousands were manufactured by the women of the legations.[33]

The extensive system of fortifications used by both the allies and the Chinese limited the effectiveness of rifles and machine guns. The marines lacked artillery. This was partially overcome by the creation of "The International Gun". An old 3 inch gun barrel was found by some Chinese Christians. Additionally, the Russians had brought some shells a little larger than 3 inch, but had forgotten the gun for them at Tianjin. Gunners Mate First Class J. Mitchell, USN, took this gun and the Russian shells; forced the shells down the barrel; and firing gun. This operation increase the diameter of the bore and allowed the gun to used the Russian shells. The gun was lashed to a beam and some Italian wheels. While highly inaccurate, the gun was successfully used against enemy barricades.[34]

Even with improvisation, the weapons available were limited. Even more limited was the ammunition available. Being cut off from Tianjin, the allies in Beijing only had

the ammunition they had brought with them at the end of May. The United States Marines, brought 17,720 rounds of 6 millimeter rifle ammunition, or about 300 rounds per man. In addition, they had brought 8,000 rounds of 6 millimeter ammunition for their Colt machine gun.[35]

If taken over the 55 day period of the siege, these 25,000 rounds would have allowed the marines to fire only eight rounds per man per day. If placed under intense pressure by the Chinese, this supply of ammunition would quickly have been exhausted. This type pressure never occurred. To conserve ammunition, the marine's Colt gun was placed in reserve and was rarely used during the siege. Second, there were only two or three days of intense fighting. The remainder of the siege took the form of sniping from barricade to barricade. As a result of low battle intensity, the marines had sufficient ammunition to last the siege.[36]

Ammunition remained a major concern throughout the siege. Every nation used a different weapon. Therefore, creating common reserve of ammunition was impossible. Many nations improvised their ammunition resupply by reloading shells and in some cases making their own ammunition. This was only of limited help in redressing the severe ammunition constraints felt by the allies throughout the siege.[37]

Another problem was the inability to repair equipment that was broken. There were no spare parts brought with any of the allies. If equipment broke, unless by luck someone had the knowledge and the means to fix it, it stayed broken.[38]

One of the greatest areas of allied cooperation was in the medical field. The committee of sanitation solved the problem of numerous Chinese and animal corpses by throwing them over the walls to the Chinese side. Allied casualties were buried on the legation grounds. This committee also performed other preventive medicine functions.[39] In addition, to the committee of sanitation, a consolidated hospital was created.

The hospital was established in the British Legation in the safest part of the Legation Quarter. It was staffed by a British and a German doctor and nurses from the various missionary groups taking refuge in the legations. It had only eleven beds but often held sixty or more patients. Overflow patients were kept on mattresses on the floor. These civilian medical personnel were augmented from time to time with military medical personnel from the various allied detachments.[40]

The United States Navy had sent with our marines Assistant Surgeon T.M. Lippitt from the Newark and a hospital apprentice. Throughout most of the siege, these medical personnel treated primarily U.S. Marines at the

barricades. Surgeon Lippitt was eventually wounded and went to the consolidated allied hospital. The hospital apprentice worked in the consolidated hospital for the last two weeks of the siege.[41]

Wounded soldiers and civilians were carried by litter from the barricades for treatment in the hospital. Treatment was difficult because of the different languages spoken by the patients. Treatment of the patients was also hampered because of the lack of medical supplies.[42]

All available medical supplies were consolidated at the siege hospital. As medical supplies ran low, substitutes were found by the hospital personnel. The drugs and other supplies lasted throughout the siege. In addition to medical supplies, the siege hospital had top priority for food, clothing, and bedding. The residence of the Legation Quarter felt nothing was too good for the wounded. Despite the limited resources available to the hospital personnel, they had an amazing success rate.[43]

The combined military and civilian casualties, excluding Chinese, during the siege of the legations was 67 killed and 167 wounded. After the first two weeks of the siege, the number of wounded in the hospital never went below sixty. Of all these wounded, only those severely wounded who died within a few hours of arrival died in the siege hospital. No patients died of septic poisoning.

This is a remarkable medical record considering the primitive conditions that existed during the siege.[44]

The Americans had 14 wounded marines. Ten were treated at the hospital plus five other wounded soldiers were treated after the relief of Beijing. No figures were kept on disease and non-battle injuries. However, they were reported as being very low. No adults died of disease, only seven children. Seven Americans were killed during the siege. At the end of the siege, all wounded were turned over to national field hospitals. The siege hospital closed on 18 August 1900.[45]

Transportation had little impact on logistical operations at Beijing and once the siege began. After the attack on the Dagu forts on 17 June, the Chinese government gave the foreigners in the legations 24 hours to leave Beijing. Mr. Conger estimated it would take 100 Chinese carts to evacuate United States personnel. For all the legations to depart Beijing to Tianjin would take a cart train a mile long. The ministers and military felt this cart train could not be defended by foreign troops and the ministers felt the Chinese incapable of protecting them. Therefore, they made the decision to stay in Beijing and wait for relief.[46]

Once the decision was made to stay in Beijing, carts were used to gather supplies and than as part of the fortification role. During the siege rickshaws and carts

were used to move wounded and supplies around the perimeter. Because of the static nature of the defense, transportation played only a limited role after the decision was made to stay in Beijing.[47]

Chinese Christian labor was more important than transportation to the overall defense of the legations. European civilians did little physical labor; soldiers and marines primarily fought. The bulk of all labor was done by Chinese Christians within the legation perimeters. The Chinese worked for their own protection, for food, and because they were forced to. The reasons varied, but the results of their labor were crucial.[48]

Chinese labor built barricades, and repaired them when damage occurred. They dug the trenches and counter-mines. They built bomb-proof shelters, fought fires, cooked food, delivered food to the perimeter, carried wounded to the hospital. They worked two hours at a time because they were normally weak from lack of nutrition. They sometimes received food for their efforts, but often went hungry. These 2000 plus Chinese were initially seen as a burden by the defenders of the Beijing legations, but their labor was to prove instrumental in the successful defense of the legations.[49]

Captured materiel was critical to the logistics operations during the Siege at Beijing. The majority of the food used to stock the central commissary was taken

from Chinese shops and warehouses. Additionally, weapons and ammunition captured during the siege were used to arm civilian auxiliary personnel as well as allied soldiers who were running low on ammunition for their personnel weapons. Many houses had money buried in the basements. This money was dug up by the legations defenders and used to buy food, weapons and ammunition, often from Boxers themselves.[50]

SEYMOUR RELIEF EXPEDITION

The situation in Beijing had been deteriorating. The railroad had been cut on 4 June and telegraph communications were cut on 8 June 1900. The last message sent from the legations before the telegraph was cut was received at Tanggu on 9 June 1900. The message was from Sir Claude MacDonald to Captain John Jellicoe, Royal Navy. In the message, MacDonald asked for more troops immediately. Jellicoe relayed the message to Rear Admiral Edward H. Seymour, Royal Navy, who immediately, in concert with the allies, began to land naval forces to increase the size of the forces guarding Beijing.[51]

Troops were landed at Tanggu and moved to Tianjin by rail. At Tianjin, a meeting of allied naval officers was held. Most felt it too dangerous to proceed to Beijing. Captain Bowman H. McCalla said; "I don't care what the rest of you do. I have one hundred and thirty men here from my ships and I'm going tomorrow morning to the rescue of my

flesh and blood in Peking (sic). I'll be damned if I'll sit down here, ninety miles away, and just wait."[52]

Admiral Seymour agreed with McCalla. The British and Americans met at the train station the morning of 10 June. The British had seized all the rolling stock and Captain McCalla had to argue with the British to get room for the 112 Americans on the first of five trains going to relieve Beijing.[53]

The three trains departed Tianjin at 0930 hours on 10 June 1900. They passed the Imperial troops of General Nie (Nieh) at Yangcun. General Nie was guarding the key railroad bridge over the Bei He from the Boxers. By 1530 hours they had reached Luofa where they stopped for the night. Here, the commanders drew up the Luofa Agreement. In this agreement, the allies agreed on the mission, purpose, command and control, and conduct of the expedition. Here also they were joined by a fourth train.[54]

From Luofa, Seymour repaired some of the track torn up by the Boxers and proceeded to within three miles of Langfang. Here they were engaged by Boxers. After defeating the Boxers, the expedition rested over night. On 12 June 1900, the expedition reached Langfang station. Here the line was torn up beyond repair. A guard was sent to Anding to prevent further damage to the line and a fifth

train went back and forth between Langfang and Tianjin to obtain additional supplies. By 15 June, the Boxers had cut off Tianjin from Seymour, and by 16 June, Seymour realized he was cut off from Tianjin. He retreated down the tracks, repairing tracks as he went and reach Yangcun on 17 June. At Yangcun, he found the railroad bridge beyond his capability to repair.[55]

Unknown to Admiral Seymour, the allied fleet, not including United States ships, had attacked the Chinese forts at the mouth of the Hai He. This attack had turned the Chinese Imperial Army against the allies and cost Seymour the protection of the Yangcun bridge he relied on. It also caused Imperial troops to attack his column.[56]

On 19 June 1900, unable to advance or retreat, The allied commanders of Admiral Seymour's Expedition held a conference. It was decided to abandon the trains and retreat along the Bei He to Tianjin. From 19 June until 22 June, Seymour's Expedition fought their way down the river until they reach Xigu Arsenal. Here they captured the arsenal and held it until rescued by allied force from Tianjin on 26 June 1900.[57]

The Seymour Expedition failed for operational reasons. It also failed because of logistical problems. Logistical shortcomings occurred in several areas.

Food and water were a major concern throughout the expedition. Initially, the allies estimated they could

make it to Beijing in two days. To be on the safe side, Captain McCalla brought six days of corned beef and hardtack from ships stores on the Newark. By the time the trains reach Luofa, it became apparent that it would take more than two days to reach Beijing.[58]

Paymaster Jewett was placed in charge of train number five. This train had the mission to go between the Seymour Expedition and Tianjin to bring additional supplies. During its first run it brought the Americans an additional supply of canned goods and mineral water. Other allies had brought only three days of rations or none at all hoping to live off the land. There is no indication that rations were shared during the early days of this expedition.[59]

These canned rations lasted the Americans until the retreating Seymour Expedition reached Xigu Arsenal. By 22 June 1900, the expedition was cut off and out of food. The capture of the arsenal supplied the 2000 man force with 15 tons of captured rice. At three pounds per man per day, the 30,000 pounds of captured rice could feed Seymour's force for five days. Despite the bland nature of a pure rice diet, the Americans and other members of the force lived on this rice until rescued on 26 June 1900. When rescued, they had almost no food remaining.[60]

Water also proved a major problem for both the men and equipment. Initially, the rumor was started that all

the wells were poisoned by the Chinese. The force tested the water by having Chinese coolies brought along to work on the railroad drink from each well first. All wells were found to be good.[61]

Watering the trains also proved to be a problems. The Boxer's had destroyed the pumps and other water loading equipment at Luofa station. The troops took six hours to hand load each engine with 4,500 gallons of water. This time consuming process delayed the advance.[62]

During the retreat down the Bei He, sailors suffered from thirst and had only the river, polluted with Chinese corpses, for water. This problem remained until the capture of Xigu Arsenal. Here, sailors dug wells and got their first good drinking water in days.[63]

For health and welfare items, the Americans had only what they brought with them. The British and other allies had their grog until the trains were abandoned on 19 June 1900. Laundry and washing were done at stops along the railroad, however, during the retreat along the Bei He, the water was too bad to wash or bathe in even though some thirty sailors drank it.[64]

In addition to food and water, American sailors also had other logistics problems on the Seymour Expedition. They left in heavy march order. They had blankets, ponchos, and field packs. Some officers had brought their dress uniforms for use when they arrived at Beijing.

During the retreat, many of these extra items were more than could be carried. These extra items of equipment were buried when the trains were abandoned.[65]

Fuel was a consideration for cooking. Wood was obtained from the villages along the railroad. Coal for the trains was available at the stations along the line. Fuel was never a major problem during the Seymour Expedition.[66]

One of the key supply failings was the need for rails, sleepers, and spikes to repair the railroad. Seymour knew the line needed repair. Each train carried sleepers, spikes and rails obtained from stock piles at Tanggu and Tianjin. The fifth train made several runs between Tianjin and Seymour's trains to replenish the railroad materiel during the advance. Additionally, patrols of sailors captured Chinese carrying off railroad supplies and tried to prevent the destruction of the line. Once communications with Tianjin was disrupted. Admiral Seymour's advance was stopped dead in its tracks.[67]

U.S. sailors under Captain McCalla were armed with Lee rifles, a Colt machine gun on a tripod, and a 3 inch field gun from the Newark. Officer carried swords and revolvers. There were several problems with the weapons. First was with the field piece. Without the trains, it had to be dragged by sailors or placed on junks. It was difficult to transport and during the retreat. The Lee

rifle proved to be unreliable. It tended to jam and its small 6 millimeter round lacked range and stopping power.[68]

Ammunition for the weapons was also limited. All ammunitions for Seymour's entire force came from the ammunition lockers of the war ships. Supplies were limited. As additional ships arrived at Dagu, additional ammunition was taken from their ammunition lockers and sent to Seymour. This system worked until 15 June 1900, when Seymour became cut off from Tianjin. After this, ammunition was limited to what was on the trains.[69]

The Americans had 400 rounds of ammunition per man. Each man carried 180 rounds in a bandolier. The remainder was kept with the other supplies on a flat car. The 3 inch field gun had only 74 rounds available. This ammunition was rapidly used up as Boxer attacks increased. During the retreat, the last of the 3 inch ammunition was fired and the now useless gun was pushed in the river. After the trains were abandoned, each sailor carrier a basic load of 180 rounds plus another 70 rounds in their haversacks.[70]

The Americans had the lead during the retreat down the Bei He. Despite bayonet charges to conserve ammunitions, by the time Xigu Arsenal was reach, the Americans were down to less than 25 rounds per man. At Xigu Arsenal, huge stocks of arms and ammunition were captured. Each of our allies found ammunition they could

use. The Americans found no ammunition for their 6mm Lees. Therefore, the Americans had to rearm with captured Chinese weapons.[71]

Medical treatment was poor on the Seymour Expedition. The Americans had no medical personnel. The remaining doctor on the Newark was ill when the expedition left and remained on board ship. Americans who were wounded were treated by allied doctors when they were done caring for their own wounded. The Seymour Expedition was under constant attack first by the Boxers and then the Boxers and Imperial Troops from 12 June until relief on 25-26 June 1900. During this time 62 men of the relief expedition were killed and 230 were wounded out of a total force of 2066 men. Of these, the Americans lost 4 killed and 28 wounded.[72]

Dead sailors were buried and their locations recorded. The wounded were transported by train until the trains were abandoned at Yangcun. The wounded were then crowded onto captured junks and taken down river toward Tianjin. The captured arsenal also contained medical supplies that proved crucial to the survival of the casualties.[74]

No wounded died in the arsenal. When relief came, the wounded were carried by litter around the native city of Tianjin, avoiding Chinese positions. Carrying 230 wounded 10 miles overland by improvised litter was

exhausting. Seriously wounded went to the hospital at the foreign compounds of Tianjin. Here, the casualties were evacuated down the Hai He to Tanggu and then, for the Americans, to hospitals in Yokohama.[74]

Transportation was the key to the failure of the Seymour Relief Expedition. Seymour made the decision to go by rail based on a damage report of a reconnaissance made on 6 June 1900 and by underestimating the damage the Boxers could cause to the railroad. He counted on easy repair of the damaged railroad and the cooperation of the Imperial Chinese Army in protecting his rear. Both these assumptions proved incorrect.[75]

The first transportation problems faced by the Seymour expedition was obtaining the rolling stock required to attempt a relief of Beijing. The Chinese government denied Seymour rolling stock. Eventually, it authorized 1000 additional guards for Beijing legations. Seymour did not trust the Chinese and left with a force that numbered over 2,000 men. The trains had eight to sixteen cars each. The types of cars varied. Seymour's sailors mounted the lead cars with guns from the ships. Coaches and boxcars carried the troops, flat cars guns and supplies. The trains were armored with wood, stone, and sandbags.[76]

The lead train became the repair train and was the responsibility of Captain McCalla. In addition to the sailors, Mr. Currie, Chief Engineer of the Railroad,

accompanied the sailors. Mr. Currie showed the sailors how to repair the track. Paymaster Jewett, in addition to bringing additional supplies, also brought 100 coolies to help with the repairs. Only every other sleeper was laid to speed construction and save supplies. Despite these measures, by 15 June 1900, it became obvious that Seymour would not reach Beijing by rail.[77]

Admiral Seymour had become a prisoner of his own heavy guns and supplies. He had no transportation other than rail. With a small detachment at Anding and the bulk of his force at Langfang, Seymour decided to march overland to Beijing. He sent foraging parties out to obtain mules and carts. These parties failed. The area searched was under Boxer control. The allies found no carts and only a few mules and horses.[78]

Realizing he could not advance overland to Beijing without his heavy weapons Seymour ordered the expedition to return to Yangcun. Here they seized junks that were used in the retreat down the Bei He.[79] At Yangcun, the Germans seized three junks. One junk was used to carry the heavy weapons. Two junks were used to carry the wounded. The five mules found during the foraging expedition near Langfang were used to carry the ammunition for the American's field piece. The Americans also captured some sampans that were used to transport the sailors knapsacks and other essential equipment.[80]

Only essential items were taken on the march from Yangcun to Tianjin. The junks accompanied the expedition as far as Xigu Arsenal. Here, the junk carrying the heavy weapons was sunk. The other junks and sampans were abandoned after the arsenal was captured.[81]

After the Seymour Expedition was rescued at Xigu Arsenal, there was still no transportation to evacuate the wounded or any of the captured materiel. The Chinese still held the northern portion of Tianjin. Therefore, using junks on the river was impossible. Seymour's Expedition, and the force that relieved them, walked back to the foreign concessions at Tianjin using a circuitous route to avoid the Chinese. They took with them only their wounded and what they could carry.[82]

Use of captured materiel allowed the Seymour Expedition to attempt the relief of Beijing and survive after this attempt failed. All the trains and rolling stock were captured. So was the materiel used to repair the railroad. During the retreat, the capture of the junks was the only way Seymour had to get his wounded down the river. The $15 million dollars in military supplies captured at Xigu Arsenal saved the expedition from annihilation. They ate captured rice, fought with captured weapons and ammunition, and treated their wounded with captured medical supplies. Upon leaving the arsenal, all

remaining captured materiel was destroyed to prevent future use by the Chinese government or the Boxers.[83]

Use of civilian labor was also important to the Seymour Expedition. Civilian experts assisted in the repair of the railroad. Coolies joined the expedition to perform railroad repair work that the sailors were unable or too tired to perform. During this phase, due to fear of the Boxers, it was difficult for the allies to get Chinese civilians to cooperate with them. As a result, large numbers of coolies and Chinese professionals were unavailable. Sailors had to operate trains and junks. This inexperience affected the efficiency of both rail and river transportation.[84]

Despite eight nations thrown together in a hasty coalition, command and control improved throughout the Seymour Expedition. The chain of command was based on date of rank and common interest. Admiral Seymour was in overall command because he was the senior officer on the scene. The other officers, including the Americans, followed because of common interest in relieving the legations at Beijing. Initially, there was only limited tactical and logistical cooperation. Tactical difficulties were solved by the Luofa Agreement.

Logistically, arguments over railway operations and priorities were solved by compromise. There was little initial sharing of logistics resources other than the

common need for transportation and railway repair. After the expedition was cut off from Tianjin, necessity dictated a greater degree of cooperation that led eventually to creating collective stocks of food, ammunition, and medical supplies at the Xigu Arsenal.

SIEGE OF TIANJIN

Seymour's attempt to relieve Beijing proved hasty. It was hasty not only because it failed, but also because it left Tianjin almost defenseless. Seymour thought of delaying his attempt to relieve Beijing to wait for an additional 1600 Russians reinforcements coming from Port Arthur. Fortunately, Seymour did not wait and these 1600 Russians comprised the bulk of the 2000 allies that initially defended Tianjin. Had he waited, and the Russians had accompanied him, Tianjin would have been left defenseless.[85]

What Seymour failed to realize was that the situation at Beijing depended on control of the transportation hub at Tianjin. Without a secure base of operations at Tianjin, any relief effort of the Beijing legations would end in failure.

Only five days after the departure of Admiral Seymour's force, the Boxers cut the foreign concessions in Tianjin off from both Seymour's force and the allied navies at Dagu. This resulted in a siege with similar logistics characteristics to those existing at Beijing.[86]

United States forces in Tianjin at the start of the siege consisted of 24 marines from the Newark, who had been left behind by Captain McCalla, and 2' blue jackets from the Monocacy. These marines and sailors cooperated with the other allied forces to defend the foreign concessions until communications could be restored with the coast.[87]

Food was no problem during the siege of Tianjin. The huge warehouses were overflowing with all types of food stuffs. In addition to the food available from the warehouses, the sailors and marines also had supplies of canned rations from their respective ships as well as other delicacies available from shops and civilians living in the foreign concessions.[88]

Water was a problem. Bei He water was not potable. The only other source of water was from the municipal water plant. The water plant was outside the defensive perimeter but was not occupied by the Chinese. To solve the water problem, a water detail was sent to the plant on a nightly basis to bring back enough water for the next days consumption. This procedure was repeated nightly during the siege. A young mining engineer named Herbert Hoover, who eventually would become President of the United States, was in charge of this detail.[89]

The sailors from the Monocacy came in light march order. They only had their weapons, haversacks, blankets, and canteens. This left them with one change of clothes

throughout the siege. The marines fared a little better but not much. There was no shortage of other health and welfare items as the foreign concession in Tianjin was well stocked with these items.[90]

Fuel was in abundance during the siege. There were warehouse full of lamp oil, piles of coal to support railway operations, and even a municipal gas plant to support the foreign community.[91]

Barrier materiel also came from the warehouses of Tianjin. Bails of wool and other materiel were used to construct barricades. These were supplemented by bricks and even sack of grain from the warehouses. Besides barrier materiel for defense, stocks of railway repair materiel were also shipped from Tianjin station to Admiral Seymour prior to his being cut off on 15 June 1900.[92]

The United States had less than fifty troops in Tianjin. All were from the Navy. Still we had four different types of weapons in two different calibers. The marines had the Lee rifle and the Colt machine gun. Both were 6 millimeter. The blue jackets from the Monocacy were armed with obsolete Hotchkiss Rifles and a Gatling gun.[93]

Ammunition for the weapons was a major problem. Ammunition resupply depended on what was in ship's stores. It was further complicated by the fact that the ship's stores were of different types. Additionally, a large portion of the available ammunition was sent with Captain

McCalla. Furthermore, resupply of sailors on the perimeter, who were under continuous intense fire, was extremely difficult. Ammunition shortages remained a concern of all the allied forces throughout the siege.[94]

Medical treatment was a consolidated logistics function during the siege of Tianjin. A common hospital was established for all wounded. This hospital was staffed by civilian doctors of the foreign Tianjin community as well as medical personnel from the allied ships. Medical supplies were consolidated. Wounded were evacuated from the perimeter by improvised litter and rickshaw.[95]

Transportation of supplies and equipment was crucial before, during, and after the siege. Port facilities at Dagu and Tanggu were limited and there was competition between the allies for their use. Initially, Captain Wise, of the Monocacy, coordinated the shipment of supplies to Captain McCalla and the other sailors and marines at Tianjin. This was accomplished by commandeering trains and forwarding supplies in cooperation with the allies. Paymaster Lukesh, of the Monocacy, ran supply trains from Dagu to Tianjin until he was trapped in Tianjin when the Boxers cut the lines of communication. Supplies were moved from the Tianjin railroad station by sailors pulling rickshaws.[96]

In addition to rail, tugs pulled lighters and junks up the Hai He bringing men and supplies to Tianjin. After

the railroad was cut, the river also became too dangerous to travel. After the capturing of the Dagu forts on 17 June 1900, the allied admirals held a conference. At this conference a protocol was signed assigning logistics responsibilities for port operations. Commander Wise was placed in charge of the wharf and railway station at Tanggu. Each nation assigned a liaison officer to assist him. A civilian pilot from Dagu was paid 200 dollars a day to pilot vessels across the Dagu bar and assist in landing operations. Trains and boats were largely operated by the sailors themselves and shared among the allies on an as needed basis. The problem was simplified by the limited number of troops and supplies requiring off-load and transport during the early phase of operations in June 1900.[97]

Due to fear of the foreigners and the Boxers, it was difficult to obtain Chinese labor to support transportation and other logistics operations. As in Beijing, labor shortages at Tianjin were partially solved by using many Chinese Christians who were taking refuge in the foreign concessions of Tianjin. As in Beijing, these Chinese were used to build barricades and perform other tasks to allows sailors to protect the barricades.[98]

Captured materiel supplied the besieged allies with most of their requirements. Food, water and fuel came from the warehouses. Carts and railway rolling stock came from

the local transportation infrastructure. Captured weapons and ammunition were also used to arm civilians and sailors when their supplies ran short. Sailors from the Monocacy, after assisting in the relief of Admiral Seymour on 25 June 1900, threw their old Hotchkiss rifles in the Bei He and armed themselves with modern weapons and ammunition captured at the Xigu Arsenal.[99]

Command of forces at Tianjin was vested in the senior officer on site. This placed the American Marines and Sailors under the operational control of a British commander. Committees were formed for collective functions at Tianjin as they were at Beijing. However, due to the abundance of food and other supplies in particular and a better logistics situation overall, these committees were not as important.[100]

LINES OF COMMUNICATION

Tianjin was key to the entire campaign because of its commercial infrastructure and importance as a transportation hub. A large part of siege of Tianjin was involved in keeping the lines of communication open. This took the form of two key actions. The most crucial of these actions were the attacks on the Dagu forts.

By 16 June 1900, both Admiral Seymour's Expedition and Tianjin were cut off from Dagu. The Chinese government called for all railroad rolling stock, poured reinforcements into their forts at the mouth of the Hai He,

and started to mine the mouth of the river. All these actions threatened any attempt to relieve the forces battling the Boxers inland.[101]

The allied admirals held a meeting that resulted in demand that the Chinese surrender the forts by 0200 hours, 17 June 1900. The United States refused to sign these demands or participate in the attack. Admiral Kempff felt it would be an act of war against the Chinese government. The attack was conducted by low draft gunboats. The Monocacy did not participate in the attacks, but did serve as a shelter for non-combatants. All four forts were captured by the morning of 17 June 1900.[102]

The capture of the forts had several positive effects. Logistically, it secured the port of Dagu and Tanggu. Possession of these ports allowed the buildup of forces required to relieve the sieges at Tianjin and Beijing. It also prevented the Chinese from gaining control of the rolling stock. The rolling stock was also protected in a follow up operation in which allied sailors secured Tangshan. The repair facilities there ensured the allies of large quantities of crucial rolling stock.[103]

Attacking and capturing the forts also caused problems. The allied attack caused the Chinese government to order the foreigners to evacuate Beijing. Imperial troops attacked Seymour and Tianjin. This severely aggravated the military and political situation. The

wisdom of attacking the forts is debatable. However, this act did achieve the crucial objective of securing the lines of communication.[104]

At both Tianjin and Dagu, allied forces used armored trains and armed tugs and lighters in attempts to keep the railroad and river lines of communication open. These failed due to insufficient forces. Despite attempts to the contrary, neither Seymour, the garrison at Tianjin, nor the fleet off Dagu had sufficient forces to garrison the railroad. The Boxers would just wait for the armored train to pass and than tear up more track. The failure to secure the railroad to Admiral Seymour and Beijing has already been discussed. The line between Tianjin and Dagu was also constantly under Boxer assault.[105]

As additional allied forces arrived at Dagu, additional attempts were made to break through to Tianjin. The allies at Dagu were able to keep the line in a usable condition to within 18 miles of Tianjin. From this point, a combined force of British, American, Russians, and other allies were able to break the siege of Tianjin on 23 June 1900. After a few days rest, elements of the Tianjin garrison and the relief force were able rescue Seymour's force at Xigu Arsenal on 25 June and they all returned to Tianjin by 26 June 1900.[106]

By 26 June 1900, the line of communication to from Tianjin to Dagu was secure. The allies had sufficient

force to hold Tianjin from any Chinese attack but not enough troops to dislodge the Chinese troops and Boxers holding the Chinese City of Tianjin. In addition, these troops were exhausted from weeks of constant action. To advance to Beijing, the rest of Tianjin had to be captured, supplies had to be built up, and the troops needed time to rest, reorganize, and rearm.[107]

SUMMARY

During May and June, 1900, logistics support for the United States and allied forces was difficult. However, there were many similarities between the logistics operations at the Beijing legations, on the Seymour Expedition, and at Tianjin. Prior to being cut off by the Boxers, each nation provided for their own logistics support. When the Beijing legations, Tianjin, and Seymour each became surrounded all the allies pooled key logistics resources. Food and water were purchased or captured from local sources. Barrier material was vital to the survival of both Beijing and Tianjin and a good deal of improvisation was used to obtain the quantities required for fortifications. Seymour relied on captured railway material in his attempt.

The Seymour Expedition and forces at Beijing and Tianjin had only limited ammunition available and could not create a common reserve because of different weapons types. They were able to conserve what ammunition they had

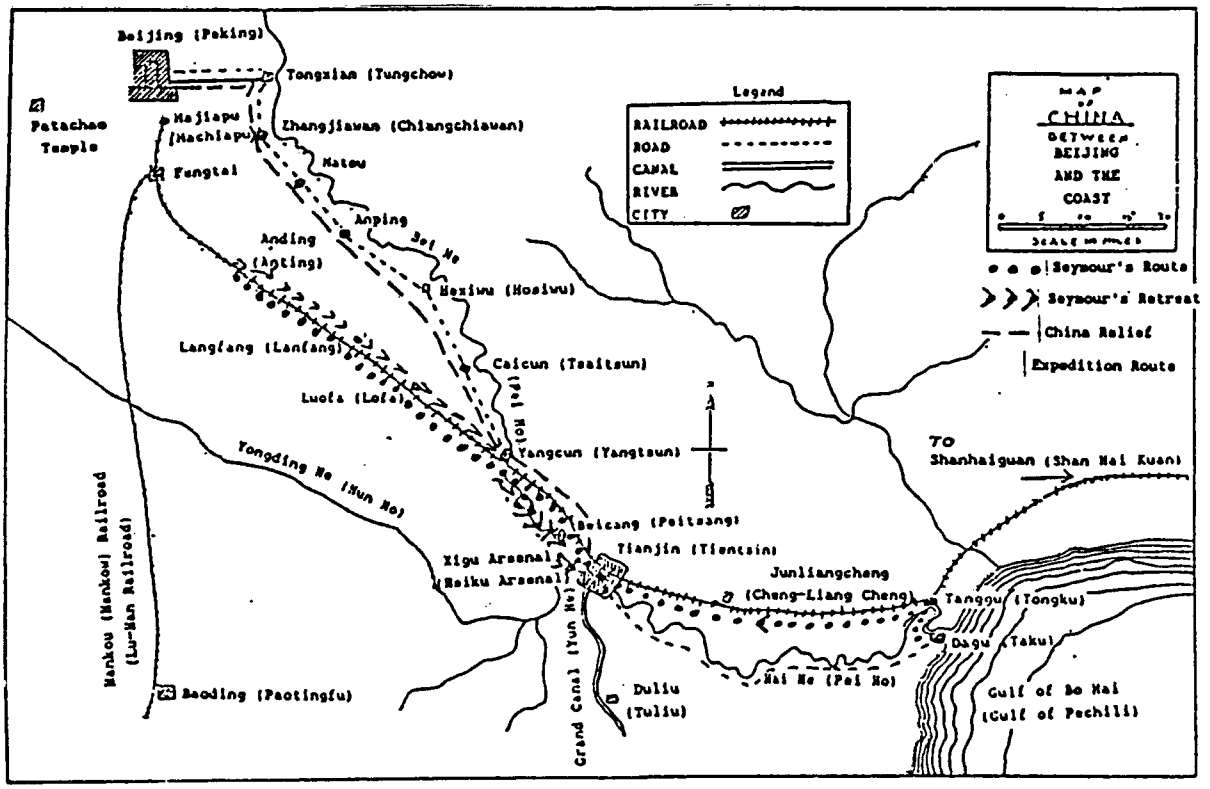
by using captured weapons and ammunition. In fact, the use of captured weapons and ammunition saved Seymour's force from destruction.

Labor was crucial at Beijing and Tianjin for barrier construction and performing other logistics functions such as cooking, laundry, and other detail work. Labor was limited primarily to Chinese Christians seeking refuge from the Boxers. Seymour also needed coolies to repair the railroad and test his water supply. In addition to Chinese labor, European merchants and engineers helped identify local sources of supply and provided expertise on the transportation infrastructure.

There were major difference between the Seymour Expedition and operations at Beijing and Tianjin. Beijing and Tianjin were sieges, and with the exception of ammunition, were reasonably well provisioned and defensive in nature. Seymour was force to attack. He was forced to advance along a route he could not secure. He attempt failed because of inadequate transportation and logistics support.

The cooperation between the allies during Phase I was excellent. The need for survival force the allies to work together and share key logistics assets. Though there were some problems, the small number of forces involved made this cooperation easier.

Logistics resources were limited to ships stores, locally procured supplies and services, and captured materiel. All three sources combined provided only the essentials of support to a U.S. force of less than 400 troops. Even this support would have been insufficient had it not been for cooperation between all the allies and innovation in the use of locally obtained and captured materiels.



ROUTE OF SEYMOUR EXPEDITION AND CHINA RELIEF EXPEDITION[108]

ENDNOTES

CHAPTER FOUR

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CHAPTER FIVE

MORE TROOPS TO CHINA

INTRODUCTION

This chapter begins the discussion of Phase II operations. There is some overlap between Phase I and Phase II during the period when naval forces remained the only troops engaged, but additional Army and Navy forces had already started their major reinforcing deployments that eventually resulted in the formation of the China Relief Expedition. This overlap period runs from 16 June until 6 July when the first Army transports arrive at Dagu. The discussion in this chapter will focus on the initial deployment of Army units, the second siege and Battle of Tianjin, and the preparations made prior to the march on Beijing. The logistics involved in each of these events will be discussed in each significant logistical area.

Even before Admiral Seymour's return to Tianjin, it became obvious that the allies needed additional forces to march to Beijing. Estimates of the forces required varied. Admiral Kempff estimated it would take 60,000 troops to relieve Beijing plus another 20,000 to secure the lines of communication.[1] Early into the Seymour Expedition, Admiral Kempff had already increased the naval presence and had landed all forces available to him. By the middle of June, the strong resistance of the Boxers had made it obvious that the relief operation was beyond the capability of allied naval forces.

Based on the recommendations of Admiral Kempff, on 16 June 1900, President McKinley ordered General MacArthur to send an infantry regiment to China. This set in motion the deployment of the force designed as the China Relief Expedition. The force was to be a division of approximately 10,000 soldiers. This force was proportional to other allied contributions. It was also large enough for the United States to act independently from the allies, if required, to accomplish United States objectives and avoid permanent alliances.[2]

Major General Adna R. Chaffee was notified in Cuba that he was to command the force in China and he proceeded immediately to San Francisco. Here, Chaffee boarded the transport Grant for the trip to China. In General Chaffee's instructions, he was told to rescue the

legations, protect United States lives and property, not permanently commit the United States to a course of action, and retain the friendship of the Chinese people by treating them fairly.[3]

The urgency of the situation in China required that additional forces be deployed rapidly. Our nearest forces were in the Philippines. Accordingly, the War Department ordered the 9th Infantry to China. This was rapidly followed by an order to send the 14th Infantry plus Battery F, 5th Artillery. General MacArthur was concerned about the effect that sending these force to China would have on his own campaign in the Philippines. His objections were overruled by the War Department. However, he was told that additional units for China were being deployed from the United States and Cuba. If, by the time they had arrived, these forces were not needed in China, they would be diverted to support operations in the Philippines.[4]

DEPLOYMENT TO CHINA

The initial deployment of troops came from the Philippines. The 9th Infantry Regiment was pulled out of operations on the Island of Luzon. The regiment turned in station property, was given new Krag-Jorgensen rifles (to present a good appearance to the allies), and gathered and loaded supplies. An extended campaign was expected. The initial transports carried four months of rations and six months of other supplies for a force of 5000 soldiers.

These supplies represented the initial buildup. The goal was to have six months of supplies in place in China by 1 November 1900, prior to the onset of winter when the Dagu harbor would freeze. The buildup was directed by the logistics departments in the United States.[5]

Despite weather and transportation problems getting to Manila, the regiment set sail on the transports Logan and Port Albert on 27 June 1900. The Logan carried soldiers while the Port Albert carried the bulk of the animals, wagons and supplies. The deployment route for the 9th Infantry was different from that of the other deploying units. The 9th Infantry went directly to Dagu and arrived off the Dagu bar on 6 July 1900. This route was taken due to the urgency of the situation in China.[6]

It was decided that the most efficient way to support operations in China was to use the Japanese port of Nagasaki as a staging base. The deployment plan called for the 14th Infantry and Battery F, 5th Artillery to follow the 9th Infantry. These units were to depart Manila on 15 July 1900. The troops were carried on the Indiana and the animals and other equipment were carried on the Flintshire. The addition of an artillery battery overloaded the transports so much that the 14th Infantry's wagon transport had to be placed on an additional ship called the Wyefield.[7]

Troops being redeployed from Cuba were landed at gulf ports and sent by rail to the west coast of the United States. Troops stationed in the United States were also sent by rail to the west coast. San Francisco was the major staging port. General Chaffee and the 6th Cavalry Regiment departed San Francisco on 30 July 1900 aboard the transport Grant. This unit was followed by the 15th Infantry on 1 August 1900 aboard the transport Meade. While men and supplies staged out of San Francisco, animals were shipped out of other west coast ports to include Portland and Seattle. Initially, transports stopped at Nagasaki for instructions and coal before proceeding to Dagu. After the initial force arrived in China, some lighter draft transports such as the Indiana and the Sumner, went into a shuttle service between Nagasaki and Dagu.[8]

Ships that had cargo exclusively for support of the China Relief Expedition could coal at Nagasaki and proceed to Dagu. Ships with mixed cargo for China and the Philippines, could off-load their Chinese cargo at Nagasaki and proceed to the Philippines. The Indiana and Sumner would then bring only the troops and supplies required in China to Dagu. This was especially important due to the difficulty in discharging cargo and personnel at Dagu.[9]

The 9th Infantry's transports arrived off Dagu on 6 July 1900. The shortage of lighters and the competition

among the allies for the limited assets was beginning to be felt. The 9th Infantry could not get any boats to off-load the transports until 9 July 1900. Even then, only two battalions could disembark. The third battalion was forced to stay at Dagu and help off-load the transports. As the United States and allied transports continued to arrive at Dagu the situation became worse.[10]

There was no central allied council to control the port at Dagu. As transports arrived, they grouped 12 miles off shore in national clusters. This allowed them to communicate and coordinate the discharge of cargo. The only assets that could be counted upon were the boats the transports carried on board and these were limited. Masters of transports, unit quartermasters, and even commanders went ashore to find tugs and lighters. If you were able to find a tug and lighter, you used it until forced to give it up. The situation became so bad that General Chaffee had to request the War Department to request the Navy Department to tell Admiral Remey to help the Army off-load its transports.[11]

There was cooperation among the allies, but only to the point that it did not affect their individual operations or if it was a life of death emergency. On many occasions, British tugs helped tow American lighters accidently set adrift during landing operations. Most notable was the British rescue of an American 70 ton barge

transporting all the Army artillery pieces. A tow line parted at night during rough seas and the barge was set adrift in the bay. The barge was in constant danger of foundering throughout the night. The barge was found the next day by a British customs tug that towed it to Dagu. Conditions were difficult. The seas were rough. Most lighters could only cross the Dagu bar at high tide and tide conditions force much of the landing operation to occur at night. The difficult conditions caused a two to seven day delay in off-loading personnel and supplies.[12]

Problems at Dagu slowed the buildup of American and allied force. While most of the American forces that would participate in the relief of Beijing were at Tianjin or Dagu by the end of July, the expedition was not able to march on Beijing until 4 August. Even then, the force was incomplete due to problems at the overburdened port of Dagu.[13]

Moving the force inland and clearing the port were also major problems. Here, Commander Wise continued to assist units in obtaining transportation to Tianjin, but his power was declining. Captain Joseph C. Byron and Captain Winthrop S. Wood, Quartermaster officers from the United States, via the Philippines, and their counterparts from other nations increased the competition for port facilities and warehouses. Units and supplies were initially sent up the Hai He by tug and lighter. Using

these boats to move troops inland further slowed the off-loading of transports. Later, the railroad was repaired and units and supplies were moved forward using this mode.[14]

SECOND SIEGE AND THE BATTLE OF TIANJIN

By 26 June 1900, the situation at Tianjin had stalemated. The Chinese Army and Boxers continued to shell the foreign concessions and block the way to Beijing. The naval forces that allies had established could move troops and supplies from Dagu and Tanggu to Tianjin and could also conduct local attacks to improve their position. Still, the naval force did not have enough power to dislodge the Chinese force from the Walled City of Tianjin. This period of stalemate is often called the Second Siege of Tianjin. By the second week in July, sufficient forces had arrived in China for the allies to attempt to break the stalemate.[15]

Additional marines had arrived from the Philippines. Now numbering over 450 marines, these forces were consolidated under the command of Colonel Robert L. Meade. In a boat move that lasted almost 24 hours, two battalions of the 9th Infantry advanced to Tianjin by 1500 hours, 12 July 1900. In an allied council of war, it was decided to attack the Walled City the next day. Colonel Emerson H. Liscum, Commander of the 9th Infantry, was in overall command of United States forces. However, due to

his late arrival, the marines were on the left of the assault line and his forces were on the right. Overall command of the attack was under a British Brigadier A.R.F. Dorward.[16]

On 13 July, the 9th Infantry literally ran from the Tianjin docks to get into the attack. Vague instructions from Brigadier Dorward caused the 9th Infantry to be pinned down for the entire day. Colonel Liscum was killed and the 9th Infantry was withdrawn after dark. Late on the evening of 13 July, the Japanese engineers blew up the gates to the city and by the morning of 14 July 1900, the allies were in possession of all of Tianjin.[17]

Logistics support of this attack was crucial. The soldiers had canned rations brought with them on the trip up the river. They carried a ration with them into the attack which got the troops through the day. Equipment and fuel were not an issue in this battle other than the fact that the blue flannel shirts worn by the 9th Infantry made them excellent targets for Chinese gunners.[18]

The two most crucial areas of supply in support of the battle were water and ammunition. The troops went into the battle with their canteens full of water and 100 rounds in their ammunition belts. Most soldiers had an additional 40 plus rounds in their haversacks. By noon, most of this ammunition had been used. Attempts by Americans and British to bring additional ammunition forward resulted in

the death of the men and the pack mules bringing the ammunition. The same conditions also prevented the resupply of water. Brigadier Dorward provided covering fire but refused to sent in a relief force and have them get pinned down too.[19]

The 3rd Battalion of the 9th Infantry arrived at 1500 hours but could only watch the battle. It had proved impossible to resupply troops under intense fire. The soldiers of the 9th Infantry had to lie in hastily constructed holes, half filled with water, until darkness when they could be withdrawn. These conditions also created problems for medical evacuation.[20]

When the 9th Infantry went into the attack each company had designated soldiers as litter bearers and these men carried litters. Additionally, each soldier had his own first aid package. The attached Medical Department personnel under Major W. B. Bannister closely followed the troops. When the shooting started, the litter bearers threw away their litters and started firing at the Chinese. Soldiers who were wounded were treated by their comrades or Medical Department personnel if the could get to them.[21]

Many soldiers were wounded trying to reach or evacuate their wounded comrades. It became clear that the first rule in treating a patient was to get under cover first. Evacuation under observation within 1000 yards was

deemed too dangerous. The evacuation of wounded had to wait until night fall. After darkness, members of the 3rd Battalion became litter bearers. Cots and rickshaws were used as litters. The wounded were taken to the consolidated hospital established during the siege of Tianjin. These hospitals were expanded to handle the large number of allied wounded sustained during the battle.[22]

The 9th Infantry lost 23 killed and 73 wounded during the battle or about 23 percent of the soldiers engaged. The Marine Corps lost 5 killed and 28 wounded. Casualties were evacuated from Tianjin by river. By 24 July, all were placed aboard the Navy's hospital ship Solace and were on their way to the United States via Japan.[23]

Transportation assets had an important impact on military operations during the Battle of Tianjin. River transport, Chinese carts, and a few U.S. pack mules moved our supplies our troops during the battle. Much of the 9th Infantry's strength was involved in moving or guarding these logistics assets. The regimental executive officer, Lieutenant Colonel Charles A. Coolidge, and the 3rd Battalion were bringing supplies and transportation assets up from the port. Each battalion participating in the attack had lost a company to guard lines of communication. Of the 1310 soldiers assigned to the regiment, only about 450 were involved in the attack.[24]

The Battle of Tianjin was a cooperative effort on the part of the allies. While an often unclear chain of command caused tactical problems, logistically, the allies cooperated to get the forces in place and than support them. This is illustrated by the British attempts to assist in the resupply of the 9th Infantry while they were pinned down during the attack.[25]

The attack on Tianjin was costly. After the attack, the allies took their revenge by looting the city. The battle was important operationally and logistically. Operationally, the Battle of Tianjin broke the will of the Chinese Army and the Boxers. Only token resistance would be offered for the rest of the campaign. Logistically, it secured for the allies a major transportation hub that would allow the allies to prepare for the advance to Beijing.

PREPARATIONS FOR THE ADVANCE

Logistically, the buildup for an advance on Beijing was begun in earnest with the capture of Tianjin. Each logistics department established supply bases at Tanggu and Tianjin. Supplies were off-loaded at Dagu and Tanggu and shipped to Tianjin by river and rail. Warehouses at both locations were seized by allied nations and marked with a national flag. Supplies were moved from the Tianjin docks and train stations by a mixture of escort wagons and Chinese carts.[26]

A key to the logistic buildup was the additional availability of Chinese labor. Though always available, especially from Chinese Christians, captured Boxers and other impressed Chinese, this labor was more available after the capture of Tianjin. Chinese personnel were the main labor force in the transloading of supplies and equipment required for the buildup. The fair treatment of Chinese labor was an example of the United States' attempt to win the friendship of the Chinese people. While other allied nations treated the Chinese harshly, the United States paid each Chinese worker twenty cents a day, provided food, and protected its workers from the other allies. While this policy sometimes assisted our logistics personnel in finding and retaining the laborers they needed, many Chinese still feared all foreigners. Therefore, the labor force had to be continuously guarded to prevent allies from abusing them and to prevent them from running away.[27]

The packaging of supplies was poor. The wooden boxes supplies came in were too large and too weak to stand constant transhipment. Broken boxes were easily pilfered by the coolie laborers. The requirement to re-pack often slowed the work. Boxes also weighed too much. When off-loading ships, there were cranes to use. Transloading to trains and wagons; however, was a manual job. Some

boxes, especially ammunition, weighted over 400 pounds and were almost impossible to lift.[28]

Improved transportation was also a crucial part of the preparations. The Russian had sent a contingent of railway engineers. By 23 July 1900, they had repaired the railway as far as Tianjin. The Russians also took over the operation of the railway. This sped the buildup of supplies and personnel. The shortage of wagon transportation continued. Because of port constraints at Dagu, the United States was able to land only one regiment's wagon transport plus that of an artillery battery. The shortfall in transportation was made up for by seizing Chinese carts and junks.[29]

The allies seized over 200 junks near Tianjin. The United States and British decided to share their junks which numbered about eighty. Each junk could hold about six to twelve tons of supplies. Using the lower figure, the allies could transport about 1200 tons of materiel in one lift on the river. The allied force that made the advance was about 16,000 soldiers. A one day requirement for a force of this size is about 45 tons a day.[30] The junks captured could carry all food, fodder, ammunition, and medical supplies required to support a ten day march to Beijing.[31]

With minimum transportation assets available, the disposition of loot became a major problem. Items taken by

soldiers was more than the soldier could carry and if placed on wagons or carts, the loot would quickly overload the transportation system. At Tianjin, loot was confiscated from the soldiers and then, if the owner couldn't be determined, it was sold at auction by the Quartermaster Department. A receipt from the Quartermaster Department legitimized the loot. Large amounts of silver bullion, valued at $376,300, obtained in the ruins of the Salt Commissioner's Palace. The bullion was transported to banks in Hong Kong and Shanghai. Here it was sold to an agent for J.P. Morgan and the proceeds were deposited in the United States treasury. After the diplomatic settlements were agreed to, all proceeds from the loot were returned to the Chinese government.[32]

After the Battle of Tianjin, the troops of all nations were exhausted and in no condition to advance to Beijing. Additional forces arrived daily. There had been conflicting reports about the status of the Beijing legations, but despite false reports that they had been destroyed, it was generally agreed to wait for forces so a successful campaign could be launched rather than repeat a Seymour type disaster.[33]

During the buildup, food and ammunition poured into China. The intent was to have the main supply base at Tianjin thereby helping to clear the port of Tanggu and Dagu. Of all supplies, fodder was a major problem. While

Chinese donkeys and other animals could survive on the local fodder, U.S. animals could not. Therefore, most of the fodder used by our animals was shipped from the Philippines or the United States.[34]

In addition to the buildup of supplies, the medical situation was also improving. Major Bannister became the head surgeon for the China Relief Expedition. A 300 bed hospital was established at Tianjin with supporting facilities at Tanggu. The Army Hospital Ships Maine and Relief were requested and replaced the Solace off Dagu shortly after the capture of Beijing. These hospital ships completed the chain of evacuation for the wounded.[35]

The individuals killed in action were buried in temporary cemeteries on the battlefields or were moved to Tanggu for temporarily burial. Since the Spanish-American War and by Executive Order signed by President McKinley on 3 April 1899, it has been U.S. policy to evacuate the remains of our servicemen to the United States. This policy was being followed in China. Tanggu was a temporary cemetery operated by the Quartermaster Department during the early phases of the operation.[36]

Additional units began arriving. By 21 July, the 14th Infantry and Battery F, 5th Artillery had arrived at Nagasaki. By 26 July, these units had reached Dagu. The 6th Cavalry also reached Dagu by 29 July 1900. Off-loading problems delayed these units getting into action. When the

advance to Beijing began on 4 August 1900, elements of the 6th Cavalry were still off-loading and the 14th Infantry was without its wagons. Units and supplies would continue to arrive through the month of September 1900. The buildup was sufficient to support the force that would eventually capture Beijing.[37]

SUMMARY

During the part of Phase II discussed in this chapter, additional forces and the logistics structure to support those forces were moved into place. This buildup of forces and logistics assets allowed the allies to conduct a deliberate advance to Beijing. However, this buildup had numerous problems.

The major problem slowing the buildup was the port of Dagu. It took a lot of time to off-load the transports. Once off-loaded, it was difficult to clear the port of troops and supplies. This problem was compounded by the damage the Boxers caused to the railway. The allies continued to cooperate in these areas; however, as force grew, competition for limited port and rail assets aggravated the existing problems.

While the deployment of forces continued throughout Phase II, the capture of Tianjin and securing the lines of communication between Dagu and Tianjin, created the conditions that made the buildup of forces possible.

ENDNOTES

CHAPTER FIVE

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[15]Elbridge Colby, "Tientsin and the Boxer Rebellion," The Military Engineer 24 (May-June 1937): 191-199.

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[20]Ibid.

[21]Banister, 621-626.

[22]Ibid.

[23]Banister, 621-626; Chaffee, 549-554.

[24]Daggett, 24-56; Chaffee, 549-554.

[25]Ibid.

[26]Ibid.

[27]Ibid.

[28]"The March to Peking", Quartermaster Review 11 (March-April 1932): 35-41.

[29]Chaffee, 567.

[30]Requirements based on 4 pounds per man per day plus 26 pounds per animal per approximately 1000 animals on the march; requirement figures came from James Alvin Huston, The Sinews of War: Army Logistics, 1775-1953 (Washington, D.C.: Office of the Chief of Military History, United States Army, 1966), 215.

[31]Colby, 199; Daggett, 56.

[32]Daggett, 42-43; A. Henry Savage-Landor, China and the Allies 2 vols. (London: William Heinemann, 1901), 1: 200-205.

[33]Chaffee, 557.

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[36]Daggett, 51; Carter, 227-229.

[37]Daggett, 50-56.

CHAPTER SIX

THE MARCH TO BEIJING

INTRODUCTION

General Chaffee arrived in Tianjin on 30 July 1900. On 1 August 1900, a meeting was held to organize the march to Beijing. On 2 August 1900, General Chaffee issued General Order Number 5. This order outlined the concept of support for the march to Beijing. An allied force of 20,000 soldiers, on paper, was to depart on 4 August 1900 and follow the Bei He to Tongxian. Of this force, approximately 2,000 men would be from the United States. From Tongxian, they would march to Beijing and relieve the legations. In reality, the allied force numbered only about 16,000.[1]

General Chaffee wanted to proceed as soon as possible. However, delays at Dagu had prevented the arrival of his artillery and cavalry. Late on 3 August, the artillery arrived by rail with the teams hitched and

ready to roll. The soldiers of the 6th Cavalry had also arrived. However, their horses had only just arrived at Dagu and were in poor condition from the long ocean voyage.[2]

STAGING

Command and control was difficult. During the early phases of the operation, forces were small, and it was normally agreed that the senior officer would take charge. Now, the eight nations each had their own generals and it was more difficult to reach agreements. It was generally agreed that there would be a war council each night to plan the next days operations.[3]

The route of march was parallel to the Bei He. This allowed the wagons a rapid turn around when obtaining supplies from the fleet of junks that followed the column. The road along the river was poor and many of the force simply marched overland. At each war council, it was agreed what force would lead each day and the subsequent order of march. This was important not only for tactical purposes but also to schedule times for putting wagons on the roads.[4]

Getting 20,000 soldiers and 200 junks plus other transport prepared to march is a major undertaking. It was agreed that the force would advance to the vicinity of the Xigu Arsenal. This would allow sufficient space to line the force up. This was accomplished on 4 August 1900.[5]

SUPPLIES ON THE MARCH

Food was not a major problem on the march. Each soldier carried one ration in his haversack. An additional four days of rations were carried on the wagons and carts that accompanied the column. The junks carried another tens days of rations for the column. These rations were the standard army ration of the era supplemented by local vegetables and livestock foraged during the march. The American Army ration was superior in quality and caloric content to the rations of any other allies on the march.[6]

Water, on the other hand, was a major problem. The weather was hot. Temperatures ranged over 100 degrees Fahrenheit each day. Soldiers normally drank all the water in their canteens by 1000 hours in the morning. There was no way to resupply water except by rivers or by wells. The river was polluted and often too far away. The American leadership feared the wells were poisoned and initially didn't let soldiers drink from them. By noon, our soldiers were feeling the effects of the heat. The lack of water and heat caused many injuries. Where wells were good, they were normally exhausted by the lead elements of the column. Additionally, the lead elements normally took buckets and other well equipment. American soldiers began carrying a cord that they would use lower their cups down the wells to get water. These cords were later used to

pull weapons and ammunition up the walls of Beijing after the walls were scaled on 14 August 1900 by the 14th Infantry.[7]

The water problem was aggravated by the lack of any water wagons. Twelve water wagons were sent to China but had not arrived by the time the march began. This was not the only equipment problem. Soldiers discarded canteens, blankets, and anything else that became too heavy to carry during the march. A soldier normally carried a blanket, poncho, shelter half, haversack, canteen, mess kit, bayonet, weapon and ammunition belt. Even though this was considered light march order, the 35 plus pounds of this equipment was too much to carry in the heat. The route of the American column could be followed by following the equipment discarded by our soldiers. Lack of transportation assets made it impossible to carry replacements on the march. What a soldier threw away, he did without for weeks.[8]

Fuel to cook rations and boil water came from furniture and houses from the villages along the march route. Lack of trees and transportation made this the only source of fuel along the route of march. While adequate, this method of obtaining fuel did not endear any of the allied soldiers to the Chinese. Another fuel problem was that of fodder for the horses. The expedition only had one troop of cavalry (75 horses). Still, with the wagon

horses, pack mules, and artillery horses, the Americans still had to support about 500 animals. To supply these animals with grain and oats took six wagons a day. This was 25 percent of all the escort wagons available to the force. The American animals could not live long on Chinese fodder.[9]

While the allies marched on Beijing, the Russians continued to repair the railroad. This had little effect on the march itself but would have a positive long term effect on the logistics situation. Because of the rapid nature of the advance, the only other barrier and construction material required was used by the Japanese to build a pontoon bridge over the Bei He near Beicang (Peitsang). Also near Beicang, the Japanese engineers used rocks and earth to repair the banks of the river. The Boxers, knowing the allies were using the river to transport supplies, attempted to lower the level of the Bei He to make it unnavigable. The damage to river banks was quickly repaired and this attempt failed to stop the column.[10]

Ammunition was never a major issue during the march to Beijing. Each soldier carried 100 rounds for his Krag. Another 100 rounds were kept in the wagon train. The small arms ammunition was kept on mules to allow rapid resupply of units in contact. The artillery had forty rounds per gun with the battery. Reserve artillery ammunition and

extra rifles were kept in the few wagons under the control of the ordnance sergeant. The remainder of the extra ammunition was placed on junks.[11]

Initial planning figures called for 4 million rounds of small arms ammunition to support the estimated 10,000 soldiers the United States planned to send to China. This equaled a planning factor of 400 rounds per soldier. By 4 August 1900, we had approximately 2,500 soldiers in China of whom 2,000 were to march to Beijing. They had 1 millions rounds of ammunition. Again, this was 400 rounds per soldier. The six guns of Reilly's Battery had 2,000 rounds of 3.2 inch shrapnel or 330 rounds per gun.[12]

The battles fought during the march used little ammunition. The United States was only lightly involved at Beicang. At Yangcun, much of the action involved maneuver. This reduced the consumption of small arms ammunition. The artillery advanced in sections of two guns each. Normally, only one section was engaged and fired only ten rounds per weapon, 20-30 rounds total. The Gatling guns were consolidated at division level under First Lieutenant T. M. Corcoran, Sixth Cavalry. Each gun had 50,000 rounds of ammunition, but they saw only limited action during the march.[13]

Ammunition consumption greatly increased during the capture of Beijing. On 14-15 August 1900, the legations were relieved and an attack was made on the Imperial City.

The fighting on the walls around Beijing turned into rifle duels. A company would fire until its ammunition was exhausted. A company could fire 15,000 rounds in twenty minutes. It would then be replaced by a fresh company that would fire until its ammunition was exhausted. These attacks were supported by artillery and Gatling guns from the gates along the walls. On the 14th, 15,000 rounds of small arms ammunition were fired followed by 31,100 on the 15th. These were the highest ammunition expenditures of the campaign. The problem with ammunition resupply was never the availability of stocks but in getting these stocks to soldiers under fire. For this problem, the only solution found was to change companies and resupply them in a covered position.[14]

The casualties produced by the battles were small. Total battle casualties at Beicang, Yangcun, and Beijing numbered 17 killed and 100 wounded.[15] There is no accurate count of the heat casualties that occurred on the march. Several soldiers did die of the heat. On many days half the troops would fall out of the march due to the heat. The treatment and evacuation of battle casualties was excellent. The treatment and evacuation of heat casualties was not as effective because the large numbers of heat casualties overwhelmed the medical system.[16]

Prior to the march, the Medical Department had been assigned three junks to transport wounded back to the base

hospital at Tianjin. In addition to the junks, four ambulances and an escort wagon were provided to move wounded and supplies from the regimental hospitals to the junks. Each company was also assigned eight coolie litter bearers to remove casualties from the battlefield to the regimental hospitals and ambulances.[17]

The worst day for casualties was at Yangcun. Here, the 64 wounded exceeded the single lift evacuation capability of the Medical Department. However, the proximity of Yangcun to the river allowed rapid turn-around of ambulances. No other battle on the march to Beijing exceeded the lift capacity of the Medical Department.[18]

This was not the case for heat injuries. The most severe heat injuries were placed on the ambulance and taken to the next camp site. The ambulances could carry only about 40 of these soldiers, but as many as 1000 would fall behind the march column. The remainder of the soldiers would just fall out and catch up with the column during the cool of the evening.[19] The effects of the heat and lack of water greatly slowed the rate of advance and created other transportation problems.

Transportation support for the march to Beijing took the form of three modes: junk, wagon/cart/mule, and foot Each of these placed constraints on the operation. Most crucial to movement of heavy supplies and equipment were the junks captured from the Chinese.

An officer from the 14th Infantry was placed in charge of the junks. Each junk was assigned two guards to insure that the coolies pulling the junks up the river did not escape. The Americans operated their junks along with the other allies on the Bei He. The train of junks extended six miles long during the march up the narrow river.[20]

The narrow width of the river caused other problems. It was only wide enough to allow one way traffic. In order for junks to pass, one had to pull over to the shore. Just which junk had to pull over was decided by which junk carried the senior personnel. One American Marine private actually made an admirals flag to gain right-of-way on the Bei He. This worked well until he was discovered by a real Japanese Admiral.[21]

The junks moved at about two mile per hour, however, due to the winding nature of the Bei He they had difficulty keeping pace with the column. On several occasions, the allies had to stop and wait for the junks to catch up. The reliance on the junks to move supplies also forced the column to camp by the river every two or three days to resupply their wagons and troops.[22]

Landing difficulties at Dagu caused a shortage of wagons. Only the 9th Infantry had wagons and a mule train consisting of [illegible] animals. These assets were divided up as follows: China Relief Expedition Headquarters; 1 escort

wagon and 1 Dougherty wagon; the 9th and 14th Infantry each were allocated 4 escort wagons; the marines were given 1 escort wagon; Medical Department had four ambulances and 1 escort wagon; the Engineer Department was given 2 escort wagons; and the Ordnance Department was given 2 escort wagons and 50 mules. One escort wagon was left at Tianjin to assist with logistics operations there. These wagons were supplemented by many captured Chinese carts, but they were still only sufficient to carry food, ammunition, and medical supplies. Even performing these tasks was a problem for the wagons.[23]

Other problems made the wagon shortage worse. The first problems was the wagons route. The wagons followed the road that paralleled the Bei He river. The troops marched overland to reduce the distance of the foot march. In the evenings, the wagons had difficulty finding their units. This resulted in troops going hungry and delays in other resupply operations.[24] Another problem was repair. The standard Army escort wagon was made by three different manufacturers. The parts were not interchangeable. This resulted in long delays in repairing wagons or the need to abandon wagons that could not be repaired.[25]

The United States forces did have a major logistical advantage in draft animals. Our animals were stronger and could carry more weight than the Chinese animals.

Our care of the animals was also superior to the other allies. Each soldier took care of his animals before he ate. Additionally, American animals were eating oats, grain and hay. This better nourishment allowed a higher survival rate for American animals. Animals used by our allies were often poorly fed and treated. Their carcasses lined the route to Beijing.[26]

While the quality of our animals gave the United States forces a distinct advantage in transportation capabilities over the other allies. It also had disadvantages. These included the requirement to ship the animals and fodder to China. Our land transportations deficiencies were primarily due to the late arrival of wagons and other transportation.

Most the the United States forces marched to Beijing on foot. They marched overland through corn fields in blistering heat and through clouds of dust at a rate of two miles an hour. During the march, the lack of cavalry and good maps caused our soldiers marching overland to get lost and march further than required.[27]

Each regiment on the march took up half a mile of road space. Our troop column was almost two miles long. This did not include the tremendous numbers of stragglers. The poor performance of American soldiers on the march to Beijing brought forth calls for additional training on the conduct of foot marches.[28]

A large number of coolies were used to supplement the limited transportation assets on the march. In addition to the litter bearer, each regiment was authorized 100 coolies to carry cooking utensils, cans for boiling water, and other equipment needed for the immediate support of the soldiers on the march. Additionally, coolies were used throughout the supply and transportation system. Coolies pulled the junks up the Bei He. They also loaded and off-loaded supplies at the railheads at Tanggu and Tianjin.[29] Each coolie was paid and fed. Coolies operating carts, primarily for the marines, were paid $1 U.S. in gold plus rice for the driver.[30]

As the force buildup for all the allies continued, cooperation between the force decreased. Native transportation available in China was taken by that ally with the most troops available to forage for them. This resulted in the Germans, Austrians, and Italians being unable to march to Beijing due to lack of transportation. The French role was also restricted due to the transportation shortage. As far as support on the march, the Americans and the British cooperated by sharing junks but it was basically every nation for itself.[31]

The increased jealousies caused a rotation in the order of march to insure that one nation did not gain an advantage over the other. To control this polyglot allied force, a "Council of Senior Commanders" held councils of

war daily along the march. At these councils, the next day's order of march and miliary operations were decided. Despite different motivations, the central desire to relieve the Beijing legations kept the allies going.[32]

As the allies advanced, any captured transportation assets, including coolies, were pressed into service. Captured war materiel was destroyed as no nation had the transport available to evacuate it. Additionally, captured stocks could not be left for the future use of the Chinese miliary or the Boxers.[33]

United States soldiers killed on the march were buried in temporary cemeteries on the battlefields of Beicang, Yangcun, and Beijing. When time permitted they were buried with full military honors. The chaplains accompanying the force helped supervise the burials and insured that each soldier was buried with a bottle containing the soldiers name and other information required to identify the remains in the future.[34]

The United States was the only country that had a policy to evacuate the remains. After Beijing was captured, some allies suggested a combined cemetery. This was turned down by the United States because of our policy to evacuate remains. Eventually, 138 remains of soldiers and civilians who died in China were transported back to the United States by civilian Burial Corps personnel under contract to the Quartermaster Department.[35]

Dead allies were either buried or burned. Chinese were left in the field to be eaten by dogs or pigs. Despite the sanitation problem posed by the dead Chinese and animals, there was never any attempt by the United States or allies to dispose of the remains unless they posed an immediate threat to the health of the allies.[36]

The buildup of forces between Dagu and Tianjin secured the lines of communication between those two points. On the march route to Beijing, the left bank of the river was occupied by the allied armies and the right bank was occupied by fire. Any Chinese, whether Imperial soldier, Boxer, or civilian, was in danger of being shot at by the allied soldiers. Additionally, soldiers from the various allied forces who fell out of the march were left at key towns to secure the lines of communication. The result of this process was the total devastation of the Chinese countryside along the route of march. However, it also established a secure and unobstructed line of communication between Beijing and the coast.[37]

Prisoners taken during the campaign were dealt with harshly. Many allies killed their prisoners shortly after capture. The United States did not kill prisoners but used them as forced labor or, later in the campaign, turned them over to Chinese authorities who then executed them. The United States and British soldiers were much more humane towards captured Chinese than were the other allies.[38]

The United States had few engineers on the march to Beijing. The senior engineer was First Lieutenant H.B. Ferguson. He was placed on General Chaffee's staff and performed numerous functions not directly related to engineer operations. His key function was to obtain maps of the area. While his work of obtaining maps is praised in official reports, these maps were often poor, inaccurate, hand drawn copies. The lack of sufficient maps and no cavalry for reconnaissance caused American forces and logistics trains to get lost on many occasions.[39]

Another crucial combat support function was that of the paymaster. The Paymaster Department provided funds to the other logistical departments at the national level. These funds were used for local purchase of supplies and to pay the coolie labor force. Also of importance was the paymaster role in supplying the troops with exchange in Mexican dollars to prevent our soldiers from being cheated by local vendors and merchants.[40]

The Signal Corps was very important. Its personnel established a relay station at Yantai on the Shandong peninsula by 13 July 1900. This relay station was connected with Dagu by dispatch boat and later by cable. From Yantai and later Dagu, after the cable was repaired, messages were sent from General Chaffee to the Philippines and the War Department to coordinate the deployment, support, and redeployment of the forces.[41]

A signal detachment also ran a telegraph line along the route of march. The Americans and the British both lacked the materiel and transportation assets to establish communications between Beijing and Dagu. To solve the problem, the American and British Signal Corps personnel agreed to combine assets. The telegraph line laid by the Signal Corps allowed constant communications with Tianjin and Dagu.[42]

Despite constant breaks in the line from careless teamsters or Boxer interdiction, the Anglo-American telegraph was the primary means of communications for all the allies for several months after the relief of Beijing. This telegraph was also important logistically because it allowed General Chaffee to tailor his force and the support they would require during the final phase of the operation.[43]

SUMMARY

Logistics on the March to Beijing was an operational compromise between the need to build up forces and supplies compared against the urgency of rescuing the foreign nationals under siege in Beijing. By the time of the march, logistics were proceeding in accordance with the doctrine of the day. The logistics departments were being pro-active and forwarding support necessary to sustain 10,000 United States soldiers. The delays were caused by lack of transportation assets.

The root cause of the transportation problems was port deficiencies at Dagu. The Dagu Bar forced transports to send their cargo ashore by lighters. A shortage of tugs and lighters as well as labor problems, delayed the off-loading of the China Relief Expeditions ground transportation assets. This resulted in a redistribution of on-hand wagons and the use of junks, carts, and coolies to carry only the most essential combat supplies.

Allied cooperation on the march was limited. The British and Americans cooperated by sharing junks and signal equipment. The Japanese built pontoon bridges and the Russians operated the railroad. These were areas of cooperation were limited to engineer and transportation services that involved one of a kind assets such as railways or bridges. In other areas of logistics, there was much less cooperation. Each nation wanted to be the first to Beijing. This competition caused units to carefully guard logistics assets required on the march. The Germans, Italians, and Austrians did not go on the march due to transportation shortages and few of the allies offered to share.

Despite all the difficulties, the American logistics system worked. The American forces were the best equipped with supplies and transportation during the march to Beijing.

ENDNOTES

CHAPTER SIX

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CHAPTER SEVEN

PACIFICATION, OCCUPATION, AND REDEPLOYMENT

INTRODUCTION

The Empress Dowager and her court had fled to the Western China leaving Beijing to be occupied by the allied armies. This begins the last phase of the United States involvement during the Boxer Rebellion. During this phase, the United States forces established and operated a supply system with only limited cooperation with our allies. Military operations consisted primarily of mopping up operations and maintaining a United States military presence until the diplomats could negotiate a settlement.

PACIFICATION

With the fall of Beijing, the Boxers and the Imperial Army ceased to be a major military threat in North China. However, bands of Boxers still operated in the countryside around Beijing and Tianjin. Military operations from 15 August 1900 until the spring of 1901

took two forms. First were legitimate attacks against known concentrations of Boxers. The other type were punitive expeditions allegedly against the Boxers but whose primary purpose was to punish the Chinese people.[1]

German forces missed the relief of Beijing but had a strong desire to punish the Chinese because the Boxers killed their minister in Beijing. They participated in the majority of the punitive type expeditions. The United States had a different national objective. United States troops conducted limited combined operations with the British against concentrations of Boxers. Their goal was to eliminate Boxers and restore order in the area. This was accomplished with minimum force and resulted in enhanced safety and security for the average Chinese citizen.[2]

Most notable of these combined U.S. and allied operations were the Duliu (Tuliu) Expedition and the Patachao Temple Expedition. Duliu is about 23 miles west of Tianjin. The Patachao Temples are about 10 miles west of Beijing. Both expeditions occurred in mid-September 1900. Both were short duration (two to three day) combined operations with allied forces that used converging columns of troops against specific concentrations of Boxers.[3]

In both these operations logistics was provided by supplies being sent with the forces and replenished from fixed supply bases. Both operations were also of very

short duration. This is the same system used to support U.S. force in the United States. At Duliu, the support plan called for rations and equipment to be sent by canal to elements of the newly arrived 15th Infantry operating with the British. When the boats failed to arrive, the British lent our soldiers rations and blankets until our forces returned to Tianjin.[4]

During the Patachao Temple expedition, elements of the 9th and 14th Infantry and 6th Cavalry conducted a combined operation with British, German and Japanese forces to destroy Boxers staging at the temples. Each nation supported its own forces. Mules and wagons accompanied the British-American column. Supplies were never an issue. Boxer resistance at the temples was minimal. It was like hitting a fly with a sledge hammer.[5]

The United States continued to conduct patrols around Beijing and Tianjin but conducted few other combat operations. While the Germans and the Russians continued to randomly kill Chinese alleged to be Boxers, the American soldiers soon developed a reputation with the Chinese people as fair and humane. On numerous occasions, Chinese citizens would start to run at the sight of foreign troops until they realized that they were American soldiers. Then, the Chinese would stay and be extremely friendly. This helped the our force to obtain information and

logistics support. Fair treatment also enhanced the reputation of the United States with the Chinese people.[6]

The United States was logistically well prepared to support its pacification operations by the end of September 1900. We had supply bases at Dagu and Tanggu as well as our main supply base at Tianjin We kept soldiers at Yangcun and Tongxian and other key locations along the Bei He river. Expeditions and garrisons along the line of communications were supplied from the main bases at Dagu/Tanggu and Tianjin.[7]

The division called the China Relief Expedition was organized into two Brigades. One Brigade consisting of the 9th and 14th Infantry; 3rd Squadron, 6th Cavalry; Battery F, 5th Artillery, and a battalion of marines, was called the Beijing Brigade. The other Brigade was the Tianjin Brigade. It consisted of the 15th Infantry; 1st Squadron, 6th Cavalry, plus additional marines and naval personnel, and elements of the 3rd Artillery. The major forward depot to support the entire division was at Tianjin.[8]

Unit quartermaster and commissary officers drew supplies from the forward depot at Tianjin and coordinated their delivery to units along the river or at Beijing. These units would be supplied every two weeks or as needed. Efforts were made to minimize the supplies sent to Beijing to minimize back haul requirements should United States forces be quickly withdrawn from China.[9]

OCCUPATION OF BEIJING

The allies were forced to occupy many important Chinese cities during the Boxer Rebellion. The most important was Beijing. The city was divided up into allied sectors with each nation having total control over their areas. The United States was assigned the southern portion of the city around the Temple of Agriculture. The way American forces conducted themselves during the occupation greatly contributed to the restoration of order and keeping the friendship of the Chinese people.[10]

The guidelines used by the American forces during the occupation of Beijing were the same as those used by Americans forces occupying Southern cities in the United States during and after the Civil War. These guidelines came from General Order 100, 24 April 1863 and included prohibitions against looting and provided for protection of civilians in the occupied area. It also held our soldiers accountable for their actions. Operating under these guidelines allowed rapid restoration of order and showed we treated the Chinese with the same dignity and respect we treated Americans.[11]

Operating under these instructions had several logistics effects. The primary effect was a stream of Chinese refugees from the German area of the city. To avoid harsh treatment, Chinese crossed over the line into the American zone. This caused problems of feeding all the

Chinese. To accomplish this, General Chaffee ordered the use of capture stocks of grain and other supplies to relieve civilian suffering. The Chinese also were given protection.[12]

While American soldiers did loot in Beijing, the American chain of command did everything within their power to restrain it. This took the form of requiring soldiers to produce receipts for items to show they were bought at legitimate auctions. Additionally, silver bullion and other monetary instruments captured at Beijing were deposited to the United States Treasury, as was done in Tianjin. This kept the issue of ownership of funds a matter between the United States and China and kept the allies from confiscating the funds. After the rebellion, these funds were returned to the Chinese government.[13]

LOGISTICS DURING THE OCCUPATION

When the allied armies captured Beijing on 15 August 1900, the fleet of junks was 13 miles away near Tongxian. The relief army arrived exhausted and out of food. With the relief, the central commissary system of the legations fell apart and there was a period of several days when civilians and soldiers fed themselves by foraging through Beijing. They even ate flour provided to the legations by the Chinese but not eaten because it was suspected to be poisoned. It wasn't. By the 20 August, supplies from Tongxian began reaching Beijing in abundance.[14]

Standard army canned rations were in great supply. By mid-September there were enough rations in China to last the China Relief Expedition a month. Additional supplies were at Nagasaki and on their way from the Philippines and the United States. All this was supplemented by meat and vegetables obtained from the local economy. Our soldiers ate well throughout the occupation.[15]

Water supply was less of a problem. Soldiers now knew the locations of wells. Orders had been issued to boil all water as a precaution. Additionally, 50 Forbes sterilizers, to boil fresh water, were available. These could each sterilize 600 gallons per day for a total capacity of 30,000 gallons per day. These were supplemented by seven distilling units that could produce a total of 4,400 gallons a day from sea water. This allowed 34,400 gallons production capability for a 10,000 soldier force or 3.4 gallons per man per day. The total of 10,000 soldiers was never reached. The water production capacity could easily support the 5,000 and later less than 2,000 soldiers that remained in China. These apparatuses were supplemented by 775 pots designed to boil water for purification. By the time the water purification equipment arrived and was operational, the temperature had cooled and the demand for water was not as great.[16]

Soldiers arrived at Beijing with missing equipment, no tents or changes of clothes. They endured these shortages for several weeks until transportation was available to bring the supplies up river from Tianjin. By the middle of September, shortages in equipment had been corrected. Soldiers made camp around the Temple of Agriculture. While some soldiers lived in Chinese house, about half lived in Sibley Tents. These tents were pitched with brick floors and were protected from the wind by the walls of the Temple of Agriculture. Heated with Sibley Stoves, they were actually more healthful, due to ventilation, than the Chinese houses some Americans and most allies lived in. The Sibley stoves did pose a problem. The stoves were designed to burn wood. This fuel was not readily available in China. So, the soldiers devised a way to modify the stove grates with bricks and convert them to coal burners.[17]

Fuel was a problem. Some 2,500 cords of wood were shipped to China, this would not last the winter and was an resupply would be difficult with the ports frozen. Coal was available in both Beijing and Tianjin. Coordination was made with local mines to provide additional coal. Camels were used to transport coal in some cases. In addition to coal 9100 gallons of oil were shipped to China/Nagasaki to support water purification operations and also lighting requirements.[18]

Shortages of fodder greatly influenced operations. Tons of oats and hay were shipped to China. Local fodder was of little use in feeding American animals without this oat/hay supplements. To limit the requirements for fodder, only one squadron of cavalry was kept through the winter. The cavalry was also the first unit redeployed in the spring in an effort to reduce the fodder requirements.[19]

Captured Chinese animals were initially fed using captured fodder. When supplies of captured fodder became exhausted, the animals were turned loose to fend for themselves as the supply system was unable to feed them. Fodder remained the most crucial fuel shortfall throughout all logistics operations in China.[20]

Construction materials were limited even though a large amount of lumber was transported to China. This lumber was used to modify buildings so they could be used as hospitals and headquarters and was also used to build permanent frames for the Sibley tents. In addition to tents, locally procured bricks were used to ake tent floors and modify the stoves.[21]

While construction material was available for housing, supplies to rebuild the railroad were short. The railway between Yangcun and Beijing was completely destroyed. The Russians used most of the available materiel to repair the line between Tanggu to Tianjin and also back to their bases in Manchuria. The Russians also

began to remove the machinery and rolling stock at Tangshan. This made it difficult to repair the line to Beijing.[22]

When the Boxers destroyed the railroad, some rails were bent but most were carried off and hidden in the surrounding villages. By offering rewards of five Mexican dollars per rail plus immunity, large quantities of needed materiel were recovered. However, materiel shortages greatly slowed the repair of the railroad.[23]

Ammunition proved no problem during the occupation. Ammunition consumption during the campaign had been light and the Ordnance Department had at least 400 rounds for each soldier and artillery piece available at its forward depot in Tianjin with reserve stocks at Nagasaki.[24]

Health and welfare items also became plentiful by the middle of September. Almost one third of the supplies shipped by the commissary department were health and welfare items. These items were sold not only to United States soldiers, but also to American civilians. Additionally, as a good will gesture, cloth, cigars, and other items were sold to Germans and other allies at cost. The availability of these supplies added greatly to the comfort of our troops during the occupation and also enhanced the reputation of our commissary department with the allied armies present.[25]

Forces that landed at Dagu and arrived at Nagasaki after the capture of Beijing added new dimensions to the equipment situation in China. Additional, wagons and mule trains normally assigned to the regiments were landed as lighters became available. The 3rd Artillery landed a battalion that brought additional light artillery to China. The 7th Artillery, with its heavy siege guns, was sent back to the Philippines after it arrived at Nagasaki.[26]

A crucial shortage of equipment was the availability of American flags. The allies grabbed any building, junk, wharf, or other facility they could. Each facility was marked with flags. The flag shortage so hindered the United States in this property/facility "grab" that General Chaffee sent an urgent request for 50 storm flags and 5,000 smaller flags to support United States claims. Prior to the arrival of these flags, soldiers fabricated their own and complained bitterly over how difficult it was to make an American flag as opposed to a Japanese one. Once flags were posted to mark your territory, they had to be guarded to prevent encroachment on your facilities by our allies.[27]

After the capture of Beijing, some American wounded were treated at the International Hospital in the Legation Quarter. On 18 August 1900, the International Hospital closed and the wounded were turned over to national field

hospitals. The United States established an 85 bed hospital at Beijing that could be expanded to 100 beds. A small 6 bed hospital was established at Tongxian to support the evacuation of wounded down the Bei He by junk to the 300 bed general hospital established at Tianjin. This hospital was later reduced in size to 20 beds.[28]

From Tianjin, sick and wounded were taken by rail to Tanggu where they went by lighter to the Army hospital ship Relief which had replaced the Navy hospital ship Solace shortly after the capture of Beijing. From Dagu, the Medical Department had coordinated with the Navy and the Navigation Bureau for over 1000 beds available in Japan at Yokohama, Kobe, Nagasaki, and Hiroshima. Patients could then be shipped back to the United States or the Philippines depending on their condition.[29]

Qualified personnel were abundant at all the medical facilities. The Medical Department had a mix of doctors and support personnel totaling 185 personnel. Using the accepted 5 percent ratio of the day, this number could support a force of 3,700. The forces that actually arrived in China peaked at 5,000. However, forces actually engaged never reached over 2,500. After October 1900, U.S. forces rapidly fell below 2,000.[30] Throughout the campaign medical support was adequate.

The major problem of the Medical Department was sickness. Few soldiers were wounded on the various patrols

or expeditions. Dysentery and venereal disease proved to be the major problems. The medical system set up to support the forces was adequate to the mission.[31]

Transportation assets remained a problem for several reasons. First was the wagon shortage. General Chaffee wanted 30 wagons per 1000 men. On 4 September 1900, he had only 34 wagons for 5,000 men. The problem was solved by reducing the number of men to meet the transportation assets available. Until the forces being supported were reduced, the China Relief Expedition still relied heavily on junks and Chinese carts for transportation. The junks were only useful until the Bei He froze. Therefore, General Chaffee brought supplies to last through January 1901 up the river by junk. At Tongxian, junks were off-loaded onto wagons that made the 13 mile trip to Beijing.[32]

The freezing of the river made repair of the railroad an imperative. Arguments between the British, Russian, and German elements caused major delays in the repair of the line. General Chaffee wanted the civilian firm that operated the railroad before the rebellion to organize the repairs. The allies refused and finally agreements worked out by the Allied Generalissimo Count Von Waldersee, allowed for British, German, and Russian railroad engineers to each repair an assigned section of the line. The repairs were delayed by as much as four

months but the line was repaired as far as Beijing by January 1901.[33]

After the Dagu harbor froze, there was no way to send mail or other supplies to the forces. The United States and the British each contributed 200,000 dollars to construct a pier at the ice free port of Qinhuangdao. Chief Quartermaster Lieutenant Colonel Charles F. Humphrey, the same officer who coordinated the transport loading at Tampa during the war with Spain, coordinated the joint use of the port. The mail was delivered by the Navy transport New Orleans, moved by rail to Yangcun, and then by wagon overland to Beijing.[34]

Throughout the occupation, use of Chinese labor was essential to the conduct of logistics support operations. Without the threat of Boxer retaliation, it became easy to get the coolies needed to perform all sorts of logistics functions. Chinese worked as carriers, cooks, laundrymen, and laborers for line units. They were also responsible for making the transportation system work. They performed duties as boatmen, railroad men, and stevedores.[35]

With the legations secure, cooperation between the allies rapidly deteriorated. In an effort to enhance allied cooperation and placate the Germans for the murder of their minister, Field Marshall Von Waldersee was appointed Generalissimo of the allied forces in China. The United States desired to maintain its freedom of action and

avoid permanent alliance in China. For these reasons, the United States refused to place its forces under Von Waldersee's control. However, General Chaffee did, as a courtesy, cooperate with Von Waldersee and kept him informed of U.S. troop strength and operations.[36]

Meanwhile, allies continued to fight over limited logistics resources. The United States had disputes with the Russians over warehouses at Tanggu. During the redeployment there were disputes with the French and Russians over train schedules. The United States and the British opposed the harsh treatment of the Chinese by the Russians and Germans.[37]

REDEPLOYMENT

As soon as Beijing was relieved, General Chaffee considered his mission finished. His first action was to notify the War Department that Beijing had been relieved and that United States Forces should be withdrawn from China as soon as possible. On 23 August 1900, Adjutant General Corbin notified Major Hyde in Nagasaki and General Chaffee that all troops not in China would be diverted to the Philippines. This message effectively stopped the flow of men and materiel to China.[38]

General Chaffee immediately took steps to minimize supplies being forwarded to Beijing and started to prepare for the redeployment of the 5,000 United States soldiers in China. He also took steps to insure that shortages in

transportation and other equipment required for troops remaining in China continued to arrive from Nagasaki.[39]

On 22 September 1900, General Corbin notified General MacArthur and General Chaffee that a legation guard consisting of one Regiment of Infantry (the 9th), one Squadron of Cavalry (3rd Squadron, 6th Cavalry), and one battery of Artillery (Battery F, 5th Artillery) would remain as a legation guard. All other troops would be withdrawn to the Philippines.[40]

On 24 and 25 September 1900 Corbin told MacArthur and Chaffee to coordinate directly with each other concerning the redeployment of troops from China and to insure that sufficient supplies were available in China to support 1,700 soldiers through the winter. The redeployment started in October 1900. The marines and the 14th Infantry shipped their baggage to Tongxian by wagon where it was sent to Tanggu by junk. The troops marched to Yangcun. Here, Colonel Humphrey arranged with the Russians for rail transport to Tanggu.[41]

Half the marines boarded the U.S.S. Brooklyn on 8 October 1900. The remainder boarded the Indiana on 10 October 1900. The 14th Infantry was to depart on the Warren, however, this ship was delayed so the 14th Infantry camped around Yangcun until the Warren arrived. They departed on 1 November 1900. Between 1 and 15 November,

the 1st Squadron, 6th Cavalry, all 3rd Artillery Batteries, and the Battalion of the 15th Infantry departed on the Sumner, Thomas and the horse transport Pakling.[42]

By the end of November 1900, the 9th Infantry had its headquarters and nine companies in Beijing, one company at Tongxian, one company at Tianjin, and one company at Tanggu. The 3rd Squadron, 6th Cavalry and Battery F, 5th Artillery also remained at Beijing. The 1,876 soldiers remaining in China had the mission of guarding the legations and the lines of communication until a peace settlement could be worked out.[43]

As early as 26 February 1901, General Chaffee knew the forces at Beijing would be reduced in size as soon as possible. Preparations for the departure began with the movement of unnecessary supplies to Tanggu. On 24 March 1901, all remains of fallen U.S. soldiers not already shipped back to the United States were exhumed and prepared for shipment.[44]

On 1 April 1901, instructions were given to form a legation guard. This guard consisted of B Company, 9th Infantry, supported by 8 medical department soldiers, a quartermaster department officer, and a commissary sergeant. They were also left with 12 mules, two escort wagons, one ambulance and eight months worth of supplies.[45]

On 28 April 1901 the redeployment began. The cavalry, artillery and supply wagons were sent overland to Tanggu. They were sent early to reduce the requirements for fodder at Beijing. The transports were late arriving at Dagu and the nine companies of the 9th Infantry remained in Beijing until 19 May 1901. General Chaffee departed Beijing by rail on 19 May 1901. The transports left Dagu for the Philippines on 23 May 1901. The China Relief Expedition had come to an end.[46]

SUMMARY

In the period following the relief of Beijing, logistics support of the United States Forces in China followed doctrinal lines. The United States had established forward depots to support units operating in North China. Cooperation with the allies was limited during this phase more than at any other during the Boxer Rebellion. Logistics cooperation was limited to railroad operations and use of port facilities.

The support provided by all the logistics departments accomplished the mission of supporting United States force during the last phase of the Boxer Rebellion. By the end of October 1900 our soldiers were receiving continuous support in all areas of supply and compared favorably with all allied armies operating in China.

The redeployment was also well managed. There was a minimum transshipment of supplies. The movement of supplies, units and transports was carefully managed. Allowing the rapid redeployment of forces.

ENDNOTES

CHAPTER SEVEN

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CHAPTER EIGHT

CONCLUSIONS

INTRODUCTION

This chapter will discuss United States and coalition logistics lessons. The Boxer Rebellion caused the United States to deploy a large force on short notice to an area of the world that had a limited infrastructure and limited U.S. bases. The deployment of United States forces to China during the Boxer Rebellion provides logistics lessons learned that can be applied to operations today. In addition to being a United States operation, the rescue of the Beijing legations and the suppression of the Boxers was also a combined operation. Fighting a war with informal allies is tactically difficult. Coalition warfare also has major logistics problems. The Boxer Rebellion is the first modern example of coalition logistics for the United States.

The Boxer Rebellion taught the United States logistics lessons at the strategic, operational, and tactical level.

STRATEGIC LESSONS LEARNED

The first strategic lesson involved the deployment. The speed in which forces were deployed to China was responsible for the overall success of the campaign. However, the speed of the deployment would have been even more rapid had sealift and port landing operations at Dagu been under central control. The deployment was coordinated by the Navy Department and later the War Department. Both departments cooperated but they lacked an integrated command structure.

The deployment was further hampered by constantly changing commanders on the ground in China. Within two months, McCalla, Waller, Liscum, Meade, Coolidge, and Chaffee all became commander on the ground due to a mixture of enemy action, sickness, and date of rank. This combined with initially poor communications and poor facilities at Dagu all affected the speed force buildup.

These problems were corrected during the redeployment. The War Department directed redeployment of Army personnel and authorized Chaffee and MacArthur to coordinate the details. The Navy Department directed the redeployment of its forces and after initial objections, allowed the Army to provide the legation guard at Beijing. Coordination for the redeployment was possible due to

improved communications established during the force buildup. It resulted in a centralized plan that was decentrally executed. The only delays were a result of transport delays and port limitations at Dagu.

Two other strategic factors that were important were the use of Nagasaki as an intermediate staging base and the acceptance of an element of risk in the Philippines. Nagasaki allowed transports to coal and supplies to be organized and prioritized. This enabled commanders to call forward only the supplies and troops most urgently needed, thereby reducing the number of transports backlogged at Dagu. Using Nagasaki as an intermediate base also allowed more efficient use of transports. In many cases, lighter draft transports such as the Sumner and Indiana could shuttle men and materiel to Dagu while other transports could off-load cargo bound for China at Nagasaki and then proceed to the Philippines with minimum waste of time.

The United States was forced to accept risk in the Philippines in order to rapidly deploy units to China. This risk proved correct. The majority of the force involved in the relief of Beijing came from the Philippines. Logistics forced this decision because of the time distance factors involved in sending forces from the United States.

OPERATIONAL LOGISTICS LESSONS LEARNED

Operational logistics, was successful in China for two primary reasons: local procurement and allied cooperation. It is not accurate to classify the locally procured support our force obtained in China as host nation support because, in the area of operations, the local government was either ineffective or hostile. Still, supplies taken from the Chinese economy allowed the allies to survive the sieges at both Beijing and Tianjin until relieved. The use of existing rail, river, ground and port transportation assets was crucial to all allied forces during all phases of the Boxer Rebellion.

Besides the infrastructure, another key local logistics resource was the people. Hotel owners, railroad engineers, and harbor pilots all volunteered their expertise and knowledge of the local area to the allies. These people helped identify sources of supplies and showed our logisticians how the local infrastructure worked. The Chinese people themselves were also important logistically.

Coolies were used in all areas of supply, service and transportation operations. The American logistics system at the operational level depended upon moving supplies by contracting with local labor. By treating the Chinese people fairly, paying them for their services, and providing necessary security, coolies put muscle in our logistics system at the operating level.

The coolies also supplemented shortfalls in the tactical logistics system. During all phases, using local labor freed soldiers for combat duties. Even with coolies to supplement forces, soldiers had to be taken out of the line to either perform or secure logistics operations. At Tianjin, the 9th Infantry could commit only four of its twelve companies because the remainder were off-loading ships or guarding the railway. For many operations, infantry battalions or cavalry squadrons would go into battle minus one company that was performing support functions in the rear.

Military operations were affected by the need to use combat soldiers to perform logistics functions. During the Battle of Tianjin and on the march to Beijing, many soldiers were required to support the deployment or guard the lines of communications. To accomplish these key logistics tasks, commanders sacrificed manpower on the firing line.

TACTICAL LESSONS LEARNED

One logistics problem that defied solution during the Boxer Rebellion and still defies solution today was that of supporting soldiers in contact with the enemy. Both the 9th Infantry at Tianjin and the 14th Infantry at Beijing were unable to resupply units under intense enemy fire. The only solution was to evacuate the unit and resupply it in a safe area. The impact of this on

operations was seen in the heavy casualties suffered by the 9th Infantry at Tianjin and by the 14th Infantry not being the first into the Legation Quarter at Beijing.

Across the spectrum, logistics support of the China Relief Expedition was characterized by anticipation and improvisation. Each logistics department knew its business and forwarded the necessary supplies and equipment to support the expedition. They also anticipated conditions such as poor roads in China and only sent light escort wagons as a result. They anticipated poor water and sent water wagons and purification systems.

When circumstances prevented the support plans from working, the soldiers improvised. From making their own artillery, to strings to draw water, to armored trains, to modifying stoves to burn coal instead of wood, our forces used what they had to obtain the support they needed.

One way our forces improvised was in the use of captured materiel. Captured materiel was crucial for the emergency resupply of our forces, as shown during the Admiral Seymour Expedition. Captured junks and carts were instrumental in providing the transportation assets necessary to conduct the march on Beijing. Lastly, captured food and other supplies was important to feed the needy Chinese in Beijing and other occupied areas after the Boxers had been suppressed.

In all areas of logistics the commanders were involved. Tactics were only a small part of the operations in China. The majority of the effort was in getting the forces into position to fight. General Chaffee and other key leaders in China devoted much of their planning time, supervision, and guidance insuring the timely execution of logistics in support of the China Relief Expedition.

COALITION LOGISTICS LESSONS LEARNED

Logistics during the Boxer Rebellion, especially during the early phase, was coalition logistics. The allies were forced to work together logistically for their very survival. There were some things the allies could easily share. These included food, fuel, construction supplies, maps, medical treatment and supply, transportation, services, and health and welfare items. These items were all shared at Beijing and Tianjin during the sieges. They were also shared occasionally during the later phases of the operation.

For reasons of national pride, the allies were less willing to share uniform items. Ammunition was also not interchangeable. No two countries used the same ammunition and therefore were not able to assist each other in this area.

There were some areas where the tendency for each country to operate separately hurt logistics operations. This was true in areas such as port operations.

Each ally coordinated for port facilities independently. This delayed landing operations of all forces involved. Centralized control over the limited port facilities would have greatly enhanced the logistics operations in North China. Early attempts, such as the authority given to Commander Wise early in the naval operating, initially worked but later failed because of the tremendous work load on the port of Dagu, competition for the facilities, and size of mission. Integrating small naval landing parties was simpler than coordinating the landings of eight different national forces. The problem of controlling the port of Dagu was placed in the to hard for he coalitions command structure. Cooperation was reduced to a case by case basis.

Commander Wise was a hero at Tanggu. He assisted all allies in landing and forwarding supplies during the early phases of the Boxer Rebellion. After additional logistic personnel arrived, he remained at Tanggu to assist port operations with his knowledge of the area. As forces in China increased, Dagu became overloaded and assistance between the allies became the exception and not the rule.

While the allied port operations at Dagu went from some degree of cooperation to an intense competition over limited resources, the opposite was true for rail operations. On the other hand, rail operations went from a

system of sailors seizing trains to one of efficient centralized operation and a good deal of allied cooperation. Unlike at the port, only Russia was able to rapidly deploy large numbers of railway engineers to China in time to support military operations. There capability to repair and operate the railway provided crucial transportation during the buildup of forces at Tianjin and the march on Beijing. Rail transportation was provided to all the the allies based on operational requirements. After the capture of Beijing, political disputes later disrupted railway operations. Still, the Russian operation of the railway was an excellent example of coalition logistics.

Despite some excellent examples of coalition logistics at Beijing, Tianjin, and the early operations of the ports and railway, there were also some gross failures in allied cooperation. The Germans, Austrians, and Italians did not participate in the march on Beijing because of lack of transportation assets. In the interests of allied solidarity, representatives of these nations probably should have gone. This did not occur because each nation was looking our for its own interests and each wanted to be the first to relieve the legations at Beijing. This competition left no transportation for smaller detachments.

A lesson learned of coalition logistics was the need to integrate important logistics functions. By sharing key logistics assets, a coalition can share some logistics support functions. This could allow members of the coalition to reduce redundancy and increase the efficiency of their logistics operations. Centralized control of functions such as ports, railroads, and other key infrastructure assets are important for effective coalition logistics.

Additional efficiency could be obtained by assigning different nations responsibility of specific logistic support functions. In China, the Russians ran the railroad, the Japanese engineers repaired river dikes, performed sapper missions, and built pontoon bridges. The British and Americans installed the initial telegraph communications. The providers of these support services reduced the deployment and operational burden of the other coalition members.

Theoretically, this burden sharing could be extended to food, fuel, water, and other logistics items required by coalition members. This would have forced increased cooperation between coalition members and reduced the force structure requirements of the entire force in the area of logistics and combat support.

The Boxer Rebellion was the United States' first joint and combined contingency operation since the

Revolutionary War. The rapid deployment of force and their support in a remote area showed to the world the ability of the United States to rapidly and effectively project its power. The nations that participated in the suppression of the Boxer Rebellion, while not impressed with American leadership or the glitter of our uniforms, were impressed by the excellent logistics support we provided to our soldiers. The logistical support of the China Relief Expedition also showed the difficulties involved in such a deployment and the problems for supporting forces conducting coalition warfare.

APPENDIX A - ROMANIZATION

PINYIN ROMANIZATION	WADE-GILES ROMANIZATIONS
a. Chinese Provences in Area of Operations:	
Hebei	Chihli, Chilli
Shandong	Shantung, Shan-tung
Shanxi	Shansi
b. Waterways and bodies of water:	
Bei He	Pei Ho, North River
Hai He	Pei Ho, Sea River
Grand Canal	Yun He, Imperial Canal
Lutai Canal	Lutai, Lu T'ai Canal
Yongding He	Hsi Ho, Hun Ho
Gulf of Bo Hai	Gulf of Chihli, Gulf of Pechili
c. Cities and other places:	
Anding	Anting, Anping
Beicang	Peitsang
Beijing	Peking. Pekin, Peiping
Baoding	Paotingfu
Dagu	Taku
Fengtai	Fengtai
Hankou	Hankow
Langfang	Lanfang
Luofa	Lofa
Majiapu	Machiapu
Qinhuangdao	Chinwangtao
Shanhaiguan	Shan Hai Kuan
Tanggu	Tangku, Tong-Ku

Tangshan	Tong Shan
Tianjin	Tientsin, Tien-Tsin
Tongxian	Tungchow, Tung-Chow, Tung-chau
Xigu Arsenal	Hsi-Ku, Siku, Shiku, Si-Koo Arsenal
Yangcun	Yangtsun
Yantai	Chefoo
Yongdingmen	Yung Ting Men Gate
Beitang Cathedral	Peitang Cathedral
Lu-Han Railroad	Lu-Han Railroad
Caicun	Tsaitsun, Tsai Ts'un
Zhangjiawan	Chiangchiawan
Matou	Matau, Mat'ou, Matow
Anping	Anping
Hexiwu	Hohsiwu
Junliangcheng	Cheng-Liang Cheng
Duliu	Tuliu
Patachao Temples	Patachao Temples
Ci Xi	T'zu-hsi, Tzu Hsi
Nie	General Nieh

APPENDIX B - TIME LINE

28 May 1900 - Fengtai station burned by Boxers.
- Ministers ask Admirals off Dagu for a legation guard.

29 May 1900 - Marines land at Dagu.

31 May 1900 - Legation guard arrives at Beijing.

4 June 1900 - Last train from Beijing to Tianjin

6 June 1900 - Railroad from Beijing to Tianjin cut.

8 June 1900 - Telegraph from Beijing to Tianjin cut.

9 June 1900 - Grandstand and Beijing Race Course burned by Boxers.
- Ministers send messenger to Tianjin to request additional reinforcements.

10 June 1900 - Admiral Seymour departs Tianjin for Beijing and reach Luofa.

12 June 1900 - Seymour reaches Langfang.

13 June 1900 - Russian reinforcements arrive at Tianjin.
- Telegraph from Beijing to Russia cut.
- Seymours advance guard reach Anting.

15 June 1900 - Seymour cut off from Tianjin, bridge at Yangcun badly damaged.
- Railway from Tianjin to Tanggu cut by Boxers.

16 June 1900 - Seymour decides to retreat back to Yangcun and advance to Beijing along Bei He.
- Admirals at Dagu issue ultimatum to Chinese to surrender Dagu Forts by 0200 hours 17 June.
- General MacArthur ordered to send additional troops to China.

17 June 1900 - Allied fleet captures forts at Dagu.

18 June 1900 - Seymour attacked by Imperial Chinese Troops.
- Admiral Kempff told to cooperate with allies.

19 June 1900 - Seymour abandons trains and starts retreat down river towards Tianjin.
- Chinese give legations 24 hours to evacuate Beijing stating at 1600 hours.

20 June 1900 - German minister in Beijing killed by Boxers.
- Siege of Beijing legations begins.
- Admirals issue warning to other province governors not to get involved in the troubles in North China.

21 June 1900 - Initial attempts by Major Waller to relieve Tianjin is turned back.

22 June 1900 - Seymour reaches Xigu Arsenal.
- General Chaffee selected to command China Relief Expedition.

23 June 1900 - Allied naval forces relieve Tianjin.

24 June 1900 - Force leaves Tianjin to rescue Seymour at Xigu Arsenal.

25 June 1900 - Seymour relieved.

26 June 1900 - Seymour and relief force return to Tianjin.

27 June 1900 - 9th Infantry departs Manila for Dagu.

30 June 1900 - Seasonal rains begin. Drought ends.

2 July 1900 - Admiral Kempff estimates 80,000 troops required to rescue Beijing Legations.

3 July 1900 - Captain Meyer attacks Chinese barricades on Tarter wall in Beijing. Secures water gate that relief would eventually pass through.
- General Chaffee sails from San Francisco on transport Grant with 6th Cavalry.

6 July 1900 - 9th Infantry arrives off Dagu.

11 July 1900 - Two battalions of 9th Infantry reach Tianjin.

13 July 1900 - Battle of Tianjin.

14 July 1900 - Walled Chinese City of Tianjin captured.

15 July 1900 - 14th Infantry and Battery F, 5th Artillery depart Manila for Dagu via Nagasaki.

17 July 1900 - 15th Infantry sails from San Francisco.
- Truce at Beijing.

19 July 1900 - Chaffee promoted to Major-General of Volunteers.

26 July 1900 - 14th Infantry arrives at Dagu on Indiana.

27 July 1900 - Battery F and 14th Infantry equipment arrive at Dagu on Flintshire.

29 July 1900 - General Chaffee, 6th Cavalry arrive at Dagu on Grant.
- Four batteries of 3rd Artillery depart San Francisco on Hancock.

2 Aug 1900 - Senior Commanders Conference plans advance on Beijing.

4 Aug 1900 - Advance on Beijing begins.

5 Aug 1900 - Battle at Beicang.

6 Aug 1900 - Battle of Yangcun.

9 Aug 1900 - Hexiwu (Hosiwu) captured.

10 Aug 1900 - Matou reached.
- Truce in Beijing ends.

11 Aug 1900 - Changchiawan reached.

12 Aug 1900 - Tongxian captured.

13 Aug 1900 - Allies conduct reconnaissance.

14 Aug 1900 - Beijing Legations relieved.

15 Aug 1900 - Imperial City attacked by U.S. forces.

16 Aug 1900 - 15th Infantry arrives off Dagu.

19 Aug 1900 - 6th Cavalry fights Boxers near Tianjin.

21 Aug 1900 - 3rd Artillery arrives at Dagu.

23 Aug 1900 - Order to divert troops and supplies to the Philippines.

28 Aug 1900 - International parade of allies in Forbidden City.

9-13 Sep 1900 - Duilu Expedition.

16-18 Sep 1900- Patachao Temple Expedition.

3 Oct 1900 - Review of the 1st Brigade, China Relief Expedition in Beijing.

12-18 Oct 1900- Boading Expedtion (U.S. Observers only).

15 Dec 1900 - Railway repaired to Beijing.

23 May 1901 - End of the China Relief Expedition.

APPENDIX 3 - DEPLOYMENT AND REDEPLOYMENT DATA

DEPLOYMENT OF UNITED STATES FORCES DURING
THE BOXER REBELLION

SHIP	PORT OF EMBARKATION	INTERMEDIATE STOPS	PORT OF DEBARKATION	DEPARTURE DATE	ARRIVAL DATE	UNIT TRANSPORTED
USS NEWARK	NAGASAKI		DAGU	26 MAY	28 MAY	LEGATION GUARD
USS NASHVILLE	CAVITE		DAGU	12 JUNE	18 JUNE	1ST REGT, USMC
USNT SOLACE	CAVITE		DAGU	12 JUNE	18 JUNE	1ST REGT, USMC
USS MONOCACY	SHANGHAI		TANGGU	12 JUNE	15 JUNE	BLUE JACKETS
USAT LOGAN	MANILA		DAGU	27 JUNE	4 JULY	9TH INFANTRY, TROOPS
SS PORT ALBERT	MANILA		DAGU	27 JUNE	4 JULY	9TH INFANTRY, EQUIPMENT
SS INDIANA	MANILA	NAGASAKI	DAGU	15 JULY	24 JULY	14TH INFANTRY, TROOPS
SS FLINTSHIRE	MANILA	NAGASAKI	DAGU	15 JULY	27 JULY	14TH INFANTRY, BATTERY F, 5TH ARTILLERY
SS WYEFIELD	MANILA	NAGASAKI	DAGU	15 JULY	2 AUG	14TH INFANTRY, EQUIPMENT
USAT GRANT	SAN FRANCISCO	NAGASAKI	DAGU	3 JULY*	29 JULY	6TH CAVALRY
SS LEELANAW	SAN FRANCISCO	HONOLULU-KOBE	DAGU	1 JULY	8 AUG	HORSES FOR 6TH CAVALRY
SS CONNEMAUGH	SAN FRANCISCO	KOBE	DAGU	1 JULY	3 AUG	HORSES FOR 6TH CAVALRY
SS LENNOX	VANCOUVER, PORTLAND	KOBE	DAGU	1 JULY	10 AUG	HORSES FOR 6TH CAVALRY
USAT SUMNER	SAN FRANCISCO	NAGASAKI**	DAGU	17 JULY	14 AUG	15TH INFANTRY
USAT HANCOCK	SAN FRANCISCO	NAGASAKI	DAGU	29 JULY	21 AUG	3RD ARTILLERY 1ST REGT, USMC
USAT MEADE	SAN FRANCISCO	NAGASAKI***	MANILA	1 AUG	23 AUG	COMPANY E, ENGINEERS 3RD CAVALRY 15TH INFANTRY
USAT THOMAS	MANILA	NAGASAKI****	MANILA	8 AUG	N/A	BATTERY O, 7TH ARTILLERY
SS ATHENIAN	SAN FRANCISCO	KOBE	MANILA	20 AUG	N/A	HORSES
SS KINTUCK	SAN FRANCISCO	KOBE	MANILA	27 AUG	N/A	HORSES
SS ALTEC	SAN FRANCISCO	KOBE	MANILA	14 AUG	N/A	HORSES
SS GAROME	SEATTLE	NAGASAKI	MANILA	7 AUG	N/A	1ST CAVALRY
SS PAKLING	SEATTLE	NAGASAKI	MANILIA	7 AUG	N/A	1ST CAVALRY
USAT RELIEF	NAGASAKI		DAGU	4 AUG	15 AUG	HOSPITAL SHIP
USAT WARREN	SAN FRANCISCO	NAGASAKI	MANILA	16 AUG	N/A	9TH CAVALRY
USAT SHERMAN	SAN FRANCISCO	NAGASAKI	MANILA	21 AUG	N/A	2ND INFANTRY 5TH INFANTRY 8TH INFATNRY
SS STRATHGYLE	SAN FRANCISCO	KOBE	MANILA	22 AUG	N/A	HORSES, 9TH CAVALRY

* INITIALLY SAILED ON 1 JULY BUT WAS DELAYED BY MECHANICAL DIFFICULTIES.

** TRANSFERED TO INDIANA FOR TRIP TO DAGU.

*** TRANSFERED TO INDIANA AND SUMNER FOR TRIP TO DAGU.

**** UNITS WAS RETURNED TO MANILA. SOME SUPPLIES WERE LANDED AT NAGASAKI FOR USE IN CHINA.

REDEPLOYMENT OF UNITED STATES UNITS AFTER THE BOXER REBELLION

DATE	SHIP	FROM	TO	UNITS TRANSPORTED
8 OCT	USS BROOKLYN	DAGU	NAGASAKI	HALF, 1ST MARINES
10 OCT	SS INDIANA	DAGU	CAVITE	HALF, 1ST MARINES
1 NOV	USAT WARREN	DAGU	MANILA	14TH INFANTRY
7 NOV	SS PAKLING	DAGU	MANILA	TROOP C, 6TH CAV AND ALL HORSES
8 NOV	USAT SUMNER	DAGU	MANILA	2-TROOPS, 6TH CAV 4-BTRYS, 3RD ARTY
11 NOV	USAT THOMAS	DAGU	MANILA	6TH CAVALRY 15TH INF EQUIPMENT
15 NOV	USAT ROSECRANS	DAGU	MANILA	1ST BN, 15TH INF
23 MAY	USAT SUMNER	DAGU	MANILA	3RD SQD, 6TH CAV BTRY F, 5TH ARTY 3-CO, 9TH INFANTRY SUPPORT TROOPS
23 MAY	SS LENOX	DAGU	MANILA	HORSES
23 MAY	PAKLING	DAGU	MANILA	HORSES
23 MAY	SS INDIANA	DAGU	MANILA	9-COs, 9TH INF

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