“In the Character of their Material, Animate and Inanimate, the Troops of the United States Exelled”

*American Theatre-Level Logistics and Supply in the China Relief Expedition of 1900*

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**Abstract**

This article considers logistics and supply in the China Relief Expedition. In the China campaign, as in all armed conflicts, the availability of matériel and subsistence determined what military options were available to commanders. In 1900, because of a strong industrial base and a burgeoning logistical network, the US Army, Marine Corps, and Navy demonstrated an increased capacity and capability to project power on hemispheric scales. Throughout the entirety of their intervention in China, Americans moved animals, artillery, medical supplies, men, ordnance, and subsistence across great distances – over sea and land, to and within the theatre of operations – with remarkable efficiency under difficult conditions. Thus, the China Relief Expedition was instructive for the US profession of arms, and pointed to a future in which large-scale combat operations on land and at sea would require careful integration and more extensive logistical support than military operations of nineteenth-century conflicts.

**Keywords**

Introduction

In August 1900, two regiments of United States Army infantry, one troop of cavalry, a light battery of artillery, and a lone battalion of US Marines marched toward Peking (now Beijing) from Tientsin (now Tianjin). This march was in fact the fourth major movement of a multi-phase campaign to reach the imperial seat of the Qing dynasty. The purpose of the eight member, multi-national coalition in which the Americans participated was to liberate beleaguered diplomats, missionaries, and their families who were in the death grips of Boxers – religious fanatics who sought to expel Western influence from China’s northern provinces. A previous attempt to relieve Peking led by British Admiral Edward Hobart Seymour, begun in June, had failed dramatically when Boxer attacks severed Seymour from his communications and base of supply. And it was not until July that coalition forces succeeded in capturing Tientsin (which Seymour had left the month before), from which they could augment their forces and stage their final push to Peking.

Historians have regarded the Boxer War as an example of a small war for empire, as a global (and close-run) war between ancient and modern powers, and also as an example of counterinsurgency operations. But the Boxer Rebellion and the China Relief Expedition that ended it together constituted a “pivotal moment for the American profession of arms”. United States forces in China employed weapons that utilized smokeless powder; they fought with magazine-fed rifles and machine guns – weapons more reminiscent of later, twentieth-century wars than those that came before. Contra the arguments of historians who have suggested that the United States was not ready for armed conflict in 1898 (the outbreak of the Spanish-American War), or in 1900,

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the US Army had conducted full regimental drills in the 1880s and 1890s, rein-
vigorating a practice suspended in 1869. Moreover, instruction and drill for
artillerists at Fort Riley, Kansas, increased precision in heavy artillery fires and
nurtured a more modern and professional climate of scientific experimen-
tation in ordnance and weaponry. Not only did the China Relief Expedition
occur at the dawn of a new century: it transpired as the US Army was leaning
into a new era of industrial warfare with its attendant logistical demands.

One historian has written that although the China Relief Expedition “was
small in military terms, it revealed the nation’s growing role in the world”. This
growing role in the world was possible because of an American industrial
capability that undergirded an expanding logistical network. Indeed, the suc-
cessful conduct of the China Relief Expedition testifies to a dominant theme of
American military power that dates to the nineteenth century: sustainment of
joint expeditionary operations. Defined in United States joint military doctrine
as “the provision of logistics and personnel services to maintain operations
through mission accomplishment and redeployment of the force”, sustainment
enables commanders of combined forces across multiple domains the “free-
dom of action and endurance”; it enables them to “extend operational reach”;
and it determines “the depth to which the joint force can conduct decisive
operations”, allowing forces “to seize, retain, and exploit the initiative”. Put
simply, with the efficient movement and distribution of supply comes the
capability to project violent force.

It has become a cliché to observe that amateurs study strategy while military
professionals master logistics. Still, dedicated and rigorous studies of logistics
and supply written by academic historians are not so numerous as one might
think, especially when weighed against mountains of campaign studies and
biographies so often associated with the genre of military history. The topic

5 Weigley, History of the United States Army, 291.
6 For the logistical demands of modern industrial war, see John A. Lynn, “Modern Introduction”,
in Feeding Mars: Logistics in Western Warfare from the Middle Ages to the Present (Boulder, CO,
1993), 183–189.
8 US Joint Chiefs of Staff, Doctrine for the Armed Forces of the United States, Joint Publication
9 Three notable exceptions are Lynn, Feeding Mars; Steve R. Waddell, United States Army
Logistics: From the American Revolution to 9/11 (Westport, CT, 2010); and, more recently, Jobie
Turner, Feeding Victory: Innovative Military Logistics from Lake George to Khe Sanh (Lawrence,
has received scant coverage in connection with the Mexican-American War.\textsuperscript{10} In the voluminous literature of the American Civil War, logistics and supply have only recently received dedicated analytical treatment, and only a handful of historians writing about the First and Second World Wars have allocated more attention to the subject.\textsuperscript{11} Beyond the realm of academic military history, only official historians and memoirists of the US Army have dedicated more time and space to examining wartime logistics, with a heavy emphasis on the world wars.\textsuperscript{12} This is perhaps understandable since, as its nation’s largest fighting force, the US Army requires the greatest and most strenuous sustainment efforts to make it combat effective. In all of this, it is little wonder that, with the exception of graduate-level theses authored by American military professionals, the China Relief Expedition has escaped the attention of military historians keen on understanding logistics and supply.\textsuperscript{13}

This is the first work of its kind to examine American \textit{logistics}: the transportation of military supplies along national and international transportation networks; and \textit{supply}: the means of distributing food, ordnance, and the impedimenta of war to troops in the theatre of military operations, in the China Relief Expedition.\textsuperscript{14} What follows is not a narrative history of the expedition. Rather, given the short duration of the conflict, more emphasis in this article falls on how the availability and distribution of supplies on the ground in China influenced American military operations. The article will first consider


\textsuperscript{14} These operative definitions of logistics and supply are derived from Hess, \textit{Civil War Logistics}, xi-xii; and Hess, \textit{Civil War Supply and Strategy}, 2.
how supplies were moved across maritime routes from the continental United States and the Philippine Islands to China; second, it will examine how supplies were funnelled into the theatre of operations to be prioritised for transport to American units; and finally, it will describe how supply was distributed in the field to sustain American forces and extend their operational reach. In addition to this top-down approach for the movement of supplies, the article also demonstrates how different kinds of supplies were moved to the theatre of operations and utilized in the China Relief Expedition.

In China, as in all armed conflicts, the availability of matériel, ordnance, and subsistence determined what military options were available to commanders. “The ‘feeding’ of an army is a matter of the most vital importance”, US General William Sherman wrote in his Memoirs.15 So, too, is equipping a task force with ample matériel to make it capable of waging destructive war across vast oceans, but not overburdening it with supplies so as to cripple or immobilise it in the field of operations.16 This was especially true in China, where US soldiers, sailors, and Marines – though they operated among coalition partners – found themselves outnumbered among a hostile people, competing for transport, and far removed from their bases of supply. Only 2,500 American soldiers marched from Tientsin to Peking in August 1900, but this movement was a triumph in logistics and supply.17 Throughout the entirety of their intervention in China, Americans managed to move animals, field artillery, matériel, medical supplies, men, ordnance, and subsistence across great distances to and within the theatre of operations, all with remarkable speed and efficiency under adverse conditions.18 This logistical success occurred across vast land and maritime domains. Naturally, the presence of the Eighth

16 US Major General Winfield Scott, submitting his plans for the invasion of Mexico to the US War Department, wrote that the interior of Mexico and its numerous inhabitants posed a critical logistical and supply problem to the Americans: “if you come with few, we will overwhelm you; if you come with many, you will overwhelm yourselves” (original emphasis). No. 4, “Scott’s Plan of Operations”, in Battles of America by Sea and Land with Biographies of Naval and Military Commanders (New York, 1878), 2:614.
US Army Corps and US naval vessels in the Philippine Islands, where they fought to suppress guerrillas (Eighth Corps and its headquarters became the Military Division of the Philippines in 1900) did much to ensure this success. But the United States also dispatched supplies and troops to China from Cuba, as well as from the port cities of the North American continent, particularly San Francisco. Many of these passed through Nagasaki, Japan, before being disembarked in China at Taku (now Dagu). From Taku supplies moved by rail, river, and road to Tientsin – a distance of 26 miles by rail and 60 miles by river – and then northward to Peking by those same means of transport. Supplies were moved by wagons, carts, and mules on the last leg of their journey to men in the field of operations. That no American soldiers, sailors, or Marines wanted for supplies in China in the summer of 1900 testifies to a truly unprecedented effort in logistics and supply that enabled the success of US forces and portended how Americans would fight and win wars in the twentieth century.

**Maritime Shipping Lanes**

At the turn of the twentieth century, the United States demonstrated a greater capacity and capability to assert military power overseas. This was possible for several reasons. First, because a decade prior, the nation had emerged as a global leader in the production of coal, pig iron, and steel. Nothing, it seemed, could arrest the trajectory of increases in American natural resources and their industrial application. Second, industrial strength gave rise to the view that the United States should play a more active role in shaping an emerging international order. Leading Americans envisaged nothing less than a century of geopolitical dominance. Henry Cabot Lodge of Massachusetts and Theodore Roosevelt of New York, for instance, pioneered and gave expression to the “Large Policy.” This diplomatic approach, the antecedents of which its architects located in the Monroe Doctrine, underscored the need for “credible combat power” and a navy with which the United States could “be prepared for war

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22 Ibid.
in order to avoid it”. Naval expansion and modernisation ensued from 1899 to 1903, and as assistant secretary of the navy, Roosevelt worked vigorously in 1898 to prepare the US Navy for war with Spain.

In addition to the industrial and diplomatic forces driving an increase in American naval capability and capacity was a maturing professional self-awareness about how to use naval power. The US Naval War college was established in 1884 to instruct naval officers in the art and science of maritime campaigns. Published in 1890, Alfred Thayer Mahan’s *The Influence of Sea Power upon History: 1660–1783* gave expression to a uniquely American approach to naval policy. Mahan argued in this work that naval strength was imperative for protecting maritime routes of communications and trade, which lay at the foundation of national (and international) greatness. Buoyed by the nation’s newfound industrial strength, and its increasingly modern naval technology, the “new” and “steel” US navy in the Atlantic and the Pacific oceans adhered to principles outlined in *The Influence of Sea Power upon History*. Vessels of the US Navy’s Asiatic Squadron had patrolled waters off of China, Japan, and Korea for much of the nineteenth century. But in 1898, outfitted with a new flagship (the protected cruiser *USS Olympia*), a revamped Asiatic Squadron succeeded in capturing Manila Bay, thus securing an American naval base and maritime lanes in the far reaches of the Pacific Ocean.

Naval supremacy thus ensured that in 1900, as the crisis in Peking reached its breaking point, the United States enjoyed multiple harbours and ports from which to ship matériel and men to China in support of the multi-national relief expedition. On the west coast of the continental United States, army and naval forces operated from California. US Major General Adna Romanza Chaffee – a rugged and skilled officer who fought in the American Civil War, in the American southwest against Comanches, and in the famous Santiago Campaign against Spain – would assume command of American ground forces in China in July, and he sailed for China from San Francisco.

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would ultimately serve as US Army Chief of Staff from 1904 to 1906, the second US Army officer so to do.29 The US Army and Navy had established bases in Honolulu, Hawaii. At Manila in the Philippine Islands the US Army established a base and the US Navy anchored its vessels to the south at Cavite, a peninsula that jetted into Bacoor Bay.30

To sustain their maritime efforts the United States also relied on access to the port possessions of partner nations. Hong Kong and Shanghai were two such ports. Japanese willingness to grant US forces access to the port of Nagasaki, “where the lines from the United States to Manila on the south and to Taku on the north diverged”, proved especially vital.31 Situated some 700 miles from the Bay of Chihli (now Bohai Bay), Nagasaki functioned as a staging port and as a secondary base of supply and was critical for the success of operations on land.32 Nagasaki, writes one soldier scholar, “allowed transports to coal and supplies to be organized and prioritized”, a luxury that enabled commanders to request only those supplies and troops in most urgent demand.33 Given the shallow depth of the Bay of Chihli, and the presence of a large sand bar some ten miles from Taku, such prioritisation of matériel, men, and supplies at the intermediate base of Nagasaki reduced transport clutter in a harbor known for its difficult navigability.34 Thus, the mere availability of Nagasaki ensured that lighter vessels could transport cargo and men to Taku and return directly to Manila in the Philippine Islands, while the heaviest transports could sail to

29 Report of Maj. Gen. Adna R. Chaffee, Headquarters, China Relief Expedition, Peking, China, 1 September 1900, in Annual Reports of the War Department for the Fiscal Year Ended June 30, 1900: Report of the Lieutenant-General Commanding the Army (Washington, DC, 1900), 7:31; Adna Romanza Chaffee was, in 1900, one of the most experienced and battle-tested soldiers in the US Army. For Chaffee’s official service record from the files of the US Army Adjutant General, see the letter of Henry Pinckney McCain to Elihu Root, Washington, DC, 12 January 1915, in box one, folder two, Chaffee Family Papers, US Army Heritage and Education Center [hereafter USAHEC]; See, also, William Harding Carder, The Life of Lieutenant General Chaffee (Chicago, IL, 1917), passim; William Gardner Bell, Commanding Generals and Chiefs of Staff 1775–2013: Portraits and Biographical Sketches of the United States Army’s Senior Officer (Washington, DC, 2013), 100.


31 Report of Secretary of War Elihu Root, in Annual Reports of the War Department for the Fiscal Year Ended June 30, 1900, 7.


Nagasaki and offload.\textsuperscript{35} At Nagasaki, too, the US Quartermaster Department rented a storehouse for supplies bound for China.\textsuperscript{36}

The capability to re-supply by sea – which required coal – was of critical importance for the success of the expedition. Expenditure receipts and reports for the fiscal year of 1900 indicate that the US government purchased 98,243 tons of Japanese coal from five different suppliers in Nagasaki, all for the express purpose of fuelling the maritime transportation of American troops and supplies to China from Japan, the Philippine Islands, and the continental United States.\textsuperscript{37} “Coaling” vessels – the process of resupplying ships with the combustible fossil fuel – took time. Colonel Aaron Simon Daggett, who commanded the 14\textsuperscript{th} US Infantry Regiment, recollected that his transport vessel, the \textit{uss Indiana}, harboured at Nagasaki for 36 hours to take on a full load of coal.\textsuperscript{38}

The ability of the US to project military power overseas was not the exclusive result of an increase in naval activity, however. If the US Navy had demonstrated a greater capability to protect maritime shipping lanes in 1900, so too the US Army displayed a greater capacity and capability to project power overseas. By 1900, it boasted a force of 23 ocean-faring ships; its number of owned and chartered vessels totalled 125; in addition to these, it counted 200 small craft for interisland transport within the Philippine archipelago (these were under the authority of the US Army Transport Service).\textsuperscript{39} Indeed, in the logistical demands imposed by the Spanish-American War and the resultant Philippine Insurrection lay the genesis of the twentieth-century US Army’s role in global sustainment. Support for the China Relief Expedition had its origin in these conflicts.

In all, US Army forces in China prior to the relief of Peking totalled two infantry regiments (the Ninth and 14\textsuperscript{th} US Infantries), a troop of the Sixth US Cavalry, and a battery of field guns from the Fifth US Artillery Regiment. These were carried to China on transports \textit{uss Grant, Logan, Port Albert, Flintshire,}

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\item \textsuperscript{35} Harlow, “Logistical Support of the China Relief Expedition”, 190.
\item \textsuperscript{36} Report of Maj. C. P. Miller, Chief Quartermaster, Quartermaster Department, Manila, Philippine Islands, 11 July 1900, Appendix D, in \textit{Annual Report of Major General Arthur MacArthur, U.S. Volunteers, Commanding, Division of the Philippines} (Manila, 1903), 9.
\item \textsuperscript{37} Prices ranged from \$3.85 per ton in gold to \$3.95. Figures derived from the Report of Maj. J. McE. Hyde, Depot Quartermaster, Quartermaster Department, Nagasaki, Japan, 20 August 1900, Appendix D, in \textit{Annual Report of Major General Arthur MacArthur, U.S. Volunteers, Commanding, Division of the Philippines}, 18.
\item \textsuperscript{38} Aaron Simon Daggett, \textit{America in the China Relief Expedition: An Account of the Brilliant Part Taken by United States Troops in that Memorable Campaign in the Summer of 1900, for the Relief of the Beleaguered Legations in Peking, China} (Kansas City, KS, 1908), 49.
\item \textsuperscript{39} Huston, \textit{The Sinews of War}, 302.
\end{itemize}
Indiana, and Wyefield. A battalion of US Marines was dispatched to China aboard the USS Brooklyn, an armoured cruiser in the Great White Fleet. The USS Wheeling, Nashville, Newark, and Oregon (gunboats, a cruiser, and an Indiana Class battleship, respectively) also contributed seamen and US Marines to the campaign.

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Theatre-level Logistics and Supply

Though US naval commanders had sailed in Chinese waters many years prior to the campaign, and had even rendered some assistance to British vessels operating against the Taku forts on the Pei-Ho River (now Hai He River) during the Second Opium War in 1857, there existed in the US Navy little knowledge of the waters in the Bay of Chihli or the Pei-Ho that might have enhanced planning for US joint operations in 1900.43 Hydrographic activity had increased dramatically in the US Navy at the turn of the century, especially as engineers and surveyors sought maritime bases in the natural harbours of the Philippine Islands, but charts of Asiatic seas – especially Chinese waters – lagged in accuracy and quality those US Navy charts of the Caribbean and the coastal United States.44 In the Bay of Chihli, American naval commanders probably benefited from British charts. But whatever the case, the urgency of the Boxer crisis required the immediate transportation of units and assets to China, and for commanders to accept risk even in uncharted waters.

Once they arrived in the Bay of Chihli, American men and matériel needed to be unloaded from ocean-faring vessels and moved ashore on lighter craft. Fierce winds made this transfer difficult; in fact, the Americans almost lost their battery of artillery to the sea when a barge carrying the three-inch guns began drifting from the bay.45 Environmental difficulties aside, the movement of men and matériel ashore could only be accomplished after the capture of imperial Chinese forts that guarded Tongku (now Tanggu) and the mouth of the Pei-Ho River, the main artery of water-borne supply to Peking. Critically, these forts also guarded a railroad terminus that, like the Pei-Ho River, led to Tientsin and Peking.46 The capture of the Taku forts on 17 June was a tactical action in which the Americans did not participate; nevertheless, capture of the Taku forts introduced greater complexity to the strategic situation in China, since it prompted a declaration of war from the Manchu court against the coalition powers. This was a calculated risk that coalition naval commanders willingly assumed and land commanders endorsed, since access to the Pei-Ho River and the rail terminus at Tongku made possible the accumulation of matériel.

43 Johnson, *Far China Station*, 95–113.
44 Jason W. Smith, *To Master the Boundless Sea: The U.S. Navy, the Marine Environment, and the Cartography of Empire* (Chapel Hill, NC, 2018), 181.
men, and animals to establish an advanced base of supply at Tientsin.\footnote{Edward Hobart Seymour, \textit{My Naval Career and Travels} (New York, 1911), 347–348; Umio Otsuka, “Coalition Coordination during the Boxer Rebellion: How Twenty-Seven ‘Councils of Senior Naval Commanders’ Contributed to the Conduct of Operations”, \textit{Naval War College Review} 71 (2018): 117–118.} With the capitulation of the Taku forts, coalition forces enjoyed access to docks and unloading equipment, though this resulted in intense intra-coalition competition for infrastructure.

Coalition forces unloaded animals, men, and supplies that had arrived from Nagasaki and cities all over the world using a variety of means. Initially, British and Russian forces attempted to tug large lighters full of men and supplies, but these proved difficult to manage.\footnote{W. C. Davidson, “Operations in North China”, \textit{Proceedings of the United States Naval Institute} 26 (1900): 645–646.} River steamers that displaced less water and featured shallower draughts proved more reliable than tug lighters, especially since they moved under their own power, could carry up to two battalions of troops, and could manage disembarking troops under a wide range of weather conditions.\footnote{Davidson, “Operations in North China”, 646.} These were also suitable for horses, which were especially difficult to transport, since the animals were easily stressed and often arrived unfit for service. (The problem of how effectively to transport equines had perplexed logisticians – not least of all the ancient Romans, who struggled to overcome the serious challenge of moving horses over water – for centuries.\footnote{Ginsburgh, “Rolling Along with Reilly”, 14; Hess, \textit{Civil War Logistics}, 1; Bernard S. Bachrach, “Logistics in Pre-Crusade Europe”, in \textit{Feeding Mars}, 72; Jonathan P. Roth, \textit{The Logistics of the Roman Army at War (264 BC—AD 235)} (Leiden, 2012), 192; Citing this difficulty, Timothy J. Runyan notes that it was not customary to move horses over the Mediterranean Sea prior to 1123. See Runyan, “Naval Logistics in the Late Middle Ages: The Example of the Hundred Years’ War”, in \textit{Feeding Mars}, 90.})

The Americans fared worse than their coalition partners at the docks. What infrastructure existed for unloading their lighters and tugs the Americans considered inadequate, and “the disembarkation of troops and supplies”, recalled one officer, “was a slow and difficult process”.\footnote{Daggett, \textit{America in the China Relief Expedition}, 25.} This difficulty resulted in part from the American decision not to participate in the assault on the Taku forts, an engagement that presented US coalition partners with opportunities to requisition critical, flat-bottomed river boats. “I found in Taku Bay and at Tongku very slight facilities controlled by the United States for the discharging of our transports”, reported Gen. Chaffee. “The Navy Department, having taken no part in the assault on the Taku forts, had secured very little – practically none – of the river boats, which are very essential for the transportation of supplies
from the Bay to Tientsin”.\textsuperscript{52} In fact, gliding upstream from Taku to Tientsin along the Pei-Ho River, Chaffee himself requisitioned a burned-out scow to facilitate the movement of supplies.\textsuperscript{53}

This kind of local initiative supported logistical success in China, though it was by no means characteristic of the American force or a constant feature of the campaign from Taku to Peking (or, for that matter, a feature of the occupation). In a meticulously-rendered November report, for instance, Lieut. Col. Joseph T. Dickman, Gen. Chaffee’s chief of staff (who joined the expedition after the fall of Peking), noted that US soldiers did not exercise the kind of initiative in seeking out the forage, transportation, and matériel necessary for sustaining a campaign.\textsuperscript{54} In contrast, Indian troops under British command, more accustomed to rigorous military service in harsh climates, demonstrated convincingly “that they [were] experienced campaigners”.\textsuperscript{55} Dickman explained:

The readiness with which they put up small flags on buildings, carts, and stores of all kinds; their skill in finding the supplies and valuables of the enemy; the posting of signs and guide posts – these, and many other details, show an experience in which American troops are deficient.\textsuperscript{56}

Though Dickman’s assessment that American forces lagged their competition in this respect probably contained some truth, their deficiency did not tell in the final tabulation of the expedition, nor did it ultimately hamstring American success. For the final leg of transport to Tientsin, the Americans relied heavily upon the railway from Taku to Tientsin and used whatever river transport they could manage, which together proved sufficient (Russian soldiers, as well as Japanese, also relied heavily upon rail transport, while British and Indian forces opted for river transport).\textsuperscript{57} While junks navigating the winding Pei-Ho could move heavier loads, tides in the

\begin{itemize}
\item \textsuperscript{52} Report of Maj. Gen. Adna R. Chaffee in Annual Reports of the War Department for the Fiscal Year Ended June 30, 1900, 32.
\item \textsuperscript{53} Ibid.
\item \textsuperscript{54} Dickman, who served as an instructor at the US Infantry and Cavalry School of Application at Fort Leavenworth, Kansas, attained the rank of major general and ultimately commanded Fourth Corps, First Corps, as well as US Third Army in France in 1918; See J. T. Dickman, “Report on the British troops in North China”, in Reports on Military Operations in South Africa and China (Washington, D.C., 1901), 415.
\item \textsuperscript{55} Dickman, “Report on the British troops in North China”, in Reports on Military Operations in South Africa and China, 415.
\item \textsuperscript{56} Dickman, “Report on the British troops in North China”, in Reports on Military Operations in South Africa and China, 415.
\item \textsuperscript{57} Davidson, “Operations in North China”, 646.
\end{itemize}
river and its aggressive bends brought substantial risk to lighters and tugs attempting to navigate to Tientsin farther upriver.⁵⁸

On the march from Tientsin to Peking, American soldiers carried four-days’ rations, their blanket rolls, tin cups, canteens, one hundred rounds of ammunition in heavy woven thimble belts (one observer noted that these were too heavy and as a result sapped the fighting strength of the men in hot conditions), and a first aid package; they were supplied by thirteen mule-drawn Army wagons of three different manufactures, pack trains of Army mules, and junks that carried medical supplies, ordnance, and rations in bulk along the Pei-Ho River.⁵⁹ Close to Peking they also employed or requisitioned camels, which

helped facilitate transportation and eased the burden of forage and subsistence for mules, since camels generally ate whatever local fare that the US Army equines rejected. That the Americans received supplies by land and by the Pei-Ho River while on the march made the China Relief Expedition different in its character than campaigns of approximate distance and duration in other conflicts, where the absence of waterways made troops particularly dependent on wagon trains and foraging (for instance, Gen. Winfield Scott’s famous Mexico-City Campaign, or Gen. William Sherman’s Savannah Campaign). In China, the Pei-Ho River proved a vital artery of supply for the relief of Peking, and the American march to the seat of the Qing empire followed roadways with access to riverbanks. Chinese “coolies” – conscripted or paid local labour – helped move supplies; this arrangement freed American soldiers from the physical strain of moving heavy impedimenta in the intense heat, thereby maintaining their combat effectiveness. The Americans were careful not to overburden their wagons, which could comfortably carry 3,000 pounds (and often were weighted down with more) over most road conditions. In anticipation of heavy rains, they opted to move only rations and surgical kits by wagon, with heavier food stores and ordnance moved by junks, allowing for maximum alacrity and movement in the event of inclement weather and bad roads. This foresight was sound, and American wagons were able to reach the troops in camp almost every evening of the march. In isolated instances US personnel noted that other nationalities provided better transportation for tools and equipment – American pioneers, for instance, carried their picks and shovels on small packs with mules, whereas the British and Japanese had devised better means of moving tools – but in general, even the American light wagons were the envy of the international force, and coalition partners who heard American soldiers tell of their heavy-duty wagons not actually in service in China were in complete disbelief.

1900: With Comments by an Officer who Served with the China Relief Expedition†, The Quartermaster Review 11 (1932): 40.

“The March to Pekin 1900†, 40.


Crozier, “Some Observations on the Pekin Relief Expedition†, 228.


Ibid., 439; “The March to Pekin 1900†, 35, 38.
Food, Forage, Water; Medical Capabilities; Ordnance

On land, the availability of rations and subsistence were especially critical to sustaining the tempo and extending the reach of coalition forces along their line of operations from Tientsin to Peking. More than the actual fighting capability of their adversary, it was the “principal concern of each general”, wrote Capt. William Crozier, Chief of Ordnance to US Gen. Chaffee during the campaign, “to keep his troops supplied and to get them into efficient condition through the hardships of the trying march”.66 The Subsistence Department ably fulfilled its procurement requirements and had arranged for ample food and water for the Americans at Tientsin even before its liberation. Ordered to China on 9 July were three months’ supply of rations for 5,000 troops. These included 450,000 field rations, 50,000 travel rations, and 20,000 emergency rations, in addition to 300,000 pounds of fresh meat aboard the refrigerating vessel *Bungaree*, sufficient for a full proportion plus seven-tenths for the soldiers and for a duration of two months (this timeline could be extended by a slight reduction in portions of meat, thus allowing for re-supply).67 Thereafter the Subsistence Department arranged for an additional supply of beef to support 18,000 men in China until February.68 A cold storage plant in the Philippine Islands (acquired in May, and which had undergone successful refrigeration tests by engineers who maintained temperatures between 36 and 40 degrees Fahrenheit), refrigeration cargo vessels, and reliable shipping routes made certain the availability of rations for American forces in the Philippines and China.69 Fresh and desiccated potatoes were supplied from San Francisco.70 To procure all this subsistence for the China expedition the chief commissary at Manila was invoiced $50,000 in gold.71

Because of these extensive preparations within the War Department, from the moment of their arrival in China, American soldiers wanted for little.72

70 “The March to Pekin 1900”, 36.
71 Ibid.
In Tientsin especially US Marines and soldiers enjoyed “not only the ordinary components of the ration but most of the delicacies classed as fancy groceries. Ginger ales and bottled water were in abundance ... plenty”, recalled Crozier, “was the order of the day”. At Tientsin, too, American foods were the envy of coalition forces. Crozier noted for readers in the *North American Review* that the food of American troops “exceeded in quantity, quality, and variety that of any of the allied forces”, a fact noticed by coalition troops less fortunate. But while American rations exceeded in quantity and quality those of partner nations, their packaging and shipment lagged British and Japanese capabilities. The Japanese in particular were careful not to let their shipments exceed 100 pounds, which greatly enhanced their transferability from ports to the field of operations.

Naturally, the quality and quantity of the subsistence enjoyed by US troops in Tientsin could not continue indefinitely, and the march to Peking, which required soldiers to carry three-pound rations and draw supplies in the field from wagons, was universally regarded as hard and difficult. The fare on that march, recalled Crozier, was “less generous” than the subsistence that had satisfied the Americans at Tientsin. Soldiers ate hard tack and later in life recalled “fair” and “very poor” rations in the field, though in point of fact even American emergency rations contained bacon, hard tack, rice, beans, condiments, sugar, and coffee – hardly the bare necessities. As their more generous meals had bested those of rival nations at Tientsin, even American field rations compared favourably to those of their coalition partners. For example, Japanese soldiers ate only rice and dried fish. Whenever and wherever possible, Japanese forces procured sheep and cattle from the countryside. Indian troops subsisted mostly on rice. The Russians managed with black
bread and soup. The fare of some nations approximated, but did not equal, the field rations of the Americans. Noted one US participant in the expedition, "there were none who were as excellently or abundantly supplied as the Americans." As the American column neared Peking its rations dwindled (one soldier recalled "turning [his] haversack wrong side out looking for the smallest pieces of hardtack"), and reliance upon mule trains and wagons for rations became more acute. To be sure, American troops endured hardships when it came to field rations, but Secretary of War Elihu Root recorded truthfully that though the US force experienced some difficulties in transporting supplies to Peking, "the men never suffered for want of food".

Forage for horses and mules was another matter. These simply could not eat whatever food American troops procured in the local countryside and from surrounding villages on their march from Tientsin to Peking. Fodder for animals had to be supplied from bases overseas, moved along maritime routes, transported along networks within the theatre of operations, and distributed in the field from Taku and Tientsin. Cavalry and artillery operations in Cuba and the Philippine Islands enabled considerable advances in equine health and nutrition and had allowed US Army veterinarians ample opportunity to study the effects of tropical climates on their animals. Younger animals proved particularly susceptible to disease in tropical climes; moreover, the intense heat greatly suppressed the appetites and altered the eating patterns of animals, which required them to fast throughout the day and, as a result, limited their endurance and strength. Military operations in China transpired during the hottest months of the year, and officers (especially those of the artillery) noted the adverse effect of the heat on their mounts. For these and other reasons (id est the availability of units) Americans relied primarily upon infantry to move against Peking, since, as a general rule, to sustain one cavalryman (or similarly, an artillerist) in the field of operations on a daily basis required

82 "The March to Pekin 1900", 37.
84 Report of Secretary of War Elihu Root, in Annual Reports of the War Department for the Fiscal Year Ended June 30, 1900, 14.
85 "The March to Pekin 1900", 40.
87 Griffin, "Molasses as a Food for Army Horses", 87.
89 Harlow, "Logistical Support of the China Relief Expedition", 60–61.
30 pounds of supplies, whereas the infantryman required four.\textsuperscript{90} Still, what animals the Americans did employ in China were meticulously protected and well maintained. An officer who later joined Gen. Chaffee’s staff in Peking after that city’s liberation recalled that, of the dead mounts strewn along the road from Tientsin to Peking in the wake of the march, not one horse or mule was the property of the US government.\textsuperscript{91}

If Americans did not want for food, they fared less favourably on account of clean drinking water. American military operations in the Spanish-American War, the Philippine Insurrection, and China occurred in hot, humid climates that presented unique challenges for soldier hydration, sanitation, and force protection, facts that were borne out in US Army medical research of the era.\textsuperscript{92} The imperative to procure potable water for soldiers in the field was not lost on officers, nor on the enlisted, but the exigencies of campaigning in China brought the water problem into sharp relief. Indeed, that these operations began in late spring – a season the US Army acknowledged to be its most sickly of the year – added to the difficulty of protecting the force.\textsuperscript{93} Scarcity of drinking water was a chronic challenge throughout the China campaign and especially problematic on the march, where finding safe water in the parched landscape seemed impossible.\textsuperscript{94} To compound problems, the American command made “no provision ... for supplying the United States troops with water other than the canteen which each man carried”.\textsuperscript{95}

American servicemembers suffered this scarcity of water in almost every phase of the campaign. US Marines who participated in the ill-fated expedition of British Admiral Edward Hobart Seymour (the first organised effort to reach Peking in June 1900) failed to appreciate how much water they would need to drink to sustain their relief effort; consequently, what little fresh water they carried for washing was consumed.\textsuperscript{96} A US naval cadet attached to that

\textsuperscript{90} Dickman, “Record of Events with Current Comment, August to November, 1900”, in \textit{Reports on Military Operations in South Africa and China}, 493.


\textsuperscript{93} Elbridge Colby, “Tientsin and the Boxer Rebellion”, \textit{The Military Engineer} 29 (1937): 199.


\textsuperscript{96} Taussig, “Experiences during the Boxer Rebellion”, 403–420, at p. 411.
expedition noted that water supply “was a serious problem”, and not infrequently the Americans and British compelled conscripted Chinese labourers accompanying their force to test local well water for poison, since the tempo of operations allowed no time to boil water that came from other sources.97 Years later, a veteran who fought with the Ninth US Infantry in the July Battle of Tientsin recalled in poetic verse the intense suffering and thirst endured by survivors of the fight:

The earth was red, the walls were red,
It made us sick to see.
The crimson curdling in the floody [sic] moat,
That soaked us to the knee.
When darkness fell, and parched with thirst,
We drank the brakish [sic] flood,
We knew the briming [sic] cup we drained
Was tainted to [sic] with blood.98

The march from Tientsin to Peking similarly featured a scarcity of good drinking water and a landscape that posed serious hazards to soldier health and sanitation. “The August heat was intense”, recalled an artillerist who served in Capt. Henry J. Reilly’s light battery of the Fifth US Artillery Regiment.99 “Often, there was a shortage of water”, and man and horse alike came perilously close to heatstroke.100 Charles Pelot Summerall, who like Dickman in later years would command an army corps in the Meuse-Argonne Campaign of 1918, described the heat as “terrific”, and recalled matter-of-factly that despite the presence of bodies floating in the Pei-Ho River (a grisly and grotesque sight to which they were accustomed), men filled their canteens with this water and drank it freely, since to purify water would have cost the expedition crucial time.101 Sumerall recalled that the road to Peking “was strewn with unconscious soldiers”, and that American horses laboured to pull his battery even with gunners dismounted.102 One infantryman wrote home from Peking to his

100 Ibid.
mother in September, giving graphic detail to the water problem: “We suffered ... for water. Like in some stories I have read of, my tongue swelled up and it was sore for five days after .... You ought to have seen the men .... Some of them acted like animals, they were so maddened with thirst”. Men drank canteens of muddy water and slime that they filled from ditches. Still another soldier recalled that the heat was so intense that his feet swelled and he was compelled to make the march barefooted. Gen. Chaffee reported that conditions were severe and that his troops were “woefully distressed physically”; at least one US Marine died from heatstroke. So difficult was the march on account of heat, dust, and scarcity of water that it endured in soldiers’ memories as a definitive feature of the campaign – a fact evidenced by the poetic verse and song that the march inspired.

Wherever possible along the way the Americans sought water from wells in Chinese villages. This water was as accessible as any water drawn from a stationary cart or mule and therefore increased the amount of space available for rations and medical supplies in carts and wagons. Capt. William Crozier described this water as cool and clouded but “never revoltingly turgid, as was that of the river and canals”. The Americans were conspicuous among the coalition soldiers for their expressed concern for water purity. They had orders to drink no water before it could be filtered or boiled, and even marched with “special utensils provided for the purpose”. Yet, as Crozier recollected, such orders could not be enforced, for “thirsty soldiers will not wait, even when arrived in camp, for water to boil and cool”. In the final analysis, American ground forces adapted to adverse environmental conditions and managed with the water available to them. The absence of large water tanks moved by wagon,

103 “WM Crighton’s [sic] Letter”, newspaper clipping, n.d., in box 51, folder seven, Spanish American War Veterans Survey Collection, USAHEC.
104 Ibid.
109 Ibid.
110 Ibid.
111 Ibid.
112 Ibid.
and the use of personal canteens, allowed in theory for better mobility as the American column pressed toward Peking to relieve the diplomatic corps. In point of fact, however, the Americans experienced “much inconvenience ... during excessive heat of the day for the want of water”, and it was painfully apparent to all who participated in the expedition that the British method – in which two mules per regiment carried sheepskins filled with fresh water in reserve – was superior.113

Some of the most detailed analyses of the coalition effort in the China campaign that demonstrate American strength in logistics and supply emerge from the writings of Maj. W. B. Banister, who deployed to China as a regimental surgeon for the Ninth US Infantry Regiment and served as chief surgeon of the American force on the staff of Gen. Chaffee. His writings are useful not only for the impression they provide of medical care throughout the campaign and in battle but for how they illuminate the flow of medical supplies and wounded, writings that testify to American superiority in sustainment. Tientsin served as a base of medical supply, and sick or wounded soldiers on the march to Peking were floated there on medical junks. The hospital vessel Relief, stationed off the coast of Taku, offered overflow capacity and additional beds. Transports Flintshire, Indiana, and Logan all initially sailed for China with regimental supply hospitals and provided medical beds; these vessels also offered transport to San Francisco in the event of medical emergency.114 The staging of medical supplies, commented Banister, “prevented congestion at any one point and worked very satisfactorily”.115

The American force that marched to Peking took with it ten surgeons, three of whom were with the navy and attached to the battalion of US Marines, along with 34 members of the hospital corps.116 Attached to each company were eight Chinese litter bearers who marched under guard to prevent desertion. The American medical detachment contained one mule-drawn wagon, three ambulances, three junks for additional medical supplies, as well as field carts to make medical supplies available at the front.117 To make surgical chests more accessible, and to maintain space in the ambulances for wounded, medical

115 Banister, “Surgical Notes on the China Relief Expedition”, 626.
116 Ibid., 627.
117 Ibid.
kits were removed from wagons and mounted to the exterior of ambulances, a rig that “proved invaluable throughout the campaign”.118 In camp, ambulances dispersed among the men and functioned as dispensaries.119 By contrast, the ambulances and doolies of other nations were inadequate.120 American field litters were far superior to those in other armies.121 And in American base and temporary hospitals, sick and wounded soldiers enjoyed the comfort of cots; the soldiers of other nationalities were laid on floors, “an illustration of the greater requirements – and their supply – of the American soldier”.122 In the final analysis, US medical capabilities, personnel, and supplies were unsurpassed, though the British and the Japanese deployed capable medical units.123

For direct kinetic fires, the Americans employed light field artillery that enhanced the strength of their infantry. Mule and horse-drawn artillery pieces that accompanied the US Army to China – 3.2-inch steel guns typical of the era – possessed considerable mobility and, along with their use of “brown powder” (a propellant imported from Germany, refined by the DuPont chemical company, and adopted by the US Ordnance Department in 1884) munitions, featured breech-loading mechanisms.124 With a barrel weight of 829 pounds, a carriage that weighed 1,166 pounds, and a limber (fully loaded with munitions) of 1,780 pounds, one 3.2-inch field artillery piece proved a comparatively mobile direct-fire weapon when harnessed to a team of six US Army horses.125 All told, the strength of Light Battery F, Fifth US Artillery Regiment in China was six guns, nine caissons, one battery wagon, three escort wagons, and 104 horses and mules.126

American forces in China also fought with machine guns – gas operated, automatic-fire weapons that represented, in material terms, a progression in the technological evolution of war. US Marines and naval personnel in China

118 Banister, “Surgical Notes on the China Relief Expedition”, 628.
119 Ibid.
121 Banister, “Surgical Notes on the China Relief Expedition”, 630.
125 Nesmith, Jr., “The Quiet Paradigm Change”, 231.
were equipped with Colt automatics, whereas US Army infantry and cavalry employed the more aged, crank-operated Gatling gun, a repeating weapon developed in the era of the American Civil War and one that found extensive use in army operations in the American West.\(^{127}\) While such weapons helped American and coalition forces attain tactical overmatch against Boxers and imperial Chinese soldiers throughout the campaign, their effects should not be overstated. Despite their high volume of fire (a powerful capability, but also a potential liability for supply, since one automatic gun could expend significant amounts of ammunition in a matter of seconds), gas-operated machine guns were prone to jamming – at least one instance of a Colt jamming in the early phase of the campaign was documented by US Marines in after-action reports – and required careful handling and maintenance from crews who drew intense small-arms fire from the enemy.\(^{128}\) As late as 1913, American soldiers noted these liabilities, and wondered whether “far greater” direct fire effects could be “obtained by a fire from the rifles of the same number of men that were used to manipulate the [machine gun]”.\(^{129}\) In a similar vein, the precise manner of the employment of machine guns in war remained a matter of some debate, and American officers theorized about the role of machine guns in US infantry tactics on the eve of the First World War.\(^{130}\) Nevertheless, machine guns proved an asset for American forces, and none other than Herbert Hoover – who was in China on business and besieged in Tientsin during the earliest phase of the China campaign – noted the widespread relief among westerners when US forces came to their aid with artillery and automatic guns.\(^{131}\)

Ammunition was available in sufficient quantities in China. Though a water pipe on the transport *Flintshire* burst while en route to Taku, damaging the priming in many of the artillery cartridges not properly stored, this did not prove debilitating.\(^{132}\) Light Battery F, Fifth US Artillery Regiment was ably furnished in the field on its march to Peking, often expending liberal amounts

of ammunition with little risk to its reserves. Likewise, US infantry enjoyed sufficient small-arms munitions. Ordnance officer Capt. William Crozier was directed to take 1,000,000 rounds of small-arms ammunition from the Philippines, an amount sufficient for a sustained and protracted campaign. In the theatre, ammunition reserves were unloaded from junks by indigenous Chinese labourers and carried over land; ammunition was also carried by pack mule convoys—a fixture of US Army logistics and supply for decades. This arrangement was satisfactory, since it enabled wagons and ambulances to maximize their loads in rations and surgical kits while simultaneously allowing for the rapid replenishment of ammunition by mules on the firing line. The countryside surrounding the main advance to Peking was replete with camels, horses, and other draft stock, which the Americans requisitioned as they advanced to allow for the faster movement of munitions; this provided a second benefit in that indigenous horses and mules could eat local fare, and thus mitigated the need to move forage for the domestically-reared US Army animals by river and over land.

Conclusion

A successful occupation of Peking followed its capture. Though not all of the troops ordered to China by the US War Department arrived in time to participate in the successful relief of the diplomatic legations, 15,500 American
troops ultimately made it to China before the campaign ended.\textsuperscript{139} In all of this, and in anticipation of winter operations, the United States managed to ship six months’ supplies of ordnance, rations, winter uniforms, clothing, fuel, lumber, stoves, and various medical supplies to China by the end of November.\textsuperscript{140} This undertaking was impressive by most standards of measure, but the herculean efforts of the subsistence and quartermaster departments merit special emphasis: 4,666 horses; 2,108 mules; 222 large Army wagons; 31 ambulances; 6,229 tons of oats; 4,686 tons of hay; 4,218,545 feet of lumber; seven water plants, which could distil some 4,400 gallons of water per day; 50 Forbes water sterilizers; 9,100 gallons of oil; 775 boilers for cleansing water from impurities; 1,400 heated stoves (and pipes); 566 ovens, complete with utensils; 12 water wagons; 1,000 coffee and wash boilers; 83,000 pounds of horseshoes; 120,000 pounds of mule shoes; 20,500 pounds of horseshoe nails; “a great variety of other articles for blacksmiths’, wheelrights’, farriers’, and carpenters’ use”; 16,000 heavy wool blankets; 16,000 lined blouses; 14,000 winter caps; 49,000 flannel underwear; 20,000 pairs of wool gloves; 18,000 heavy coats; 12,000 campaign hats; 16,000 pairs of arctic boots; 25,000 flannel shirts; 20,000 pairs of shoes; 20,500 pairs of trousers; 80,000 pairs of stockings; 1,363 conical walls and hospital tents; various and sundry camp and clothing articles – all were shipped to China aboard US transports.\textsuperscript{141}

Not to be outdone, the medical department, signal corps, and ordnance department made critical contributions. As indicated previously, the medical department provided sufficient supplies for a base hospital at Nagasaki and 1,000 beds dispersed across the hospital ship Relief and other transports.\textsuperscript{142} As it had been in July, when US Army forces first arrived in China, protecting lines of communication was as challenging as it was critical. Telegraph lines had suffered frequent attack on the march to Peking and had required constant maintenance as well as protection: “the officers and men of the Signal Corps serving with this expedition”, wrote Chaffee in his official report to the US War Department, “have worked day and night to make successful and keep in order our telegraph communication with Tongku”, and kept excellent pace with the column (though he also suspected sabotage, possibly from coalition partners, noting, in isolated instances, that the “suspicion has been great that the Chinese were not the only responsible parties for cuts and removal of

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\item \textsuperscript{139} Huston, The Sinews of War, 302.
\item \textsuperscript{140} Ibid.
\item \textsuperscript{141} Report of Secretary of War Elihu Root, in Annual Reports of the War Department for the Fiscal Year Ended June 30, 1900, 7.
\item \textsuperscript{142} Ibid.
\end{enumerate}
parts of the wire”).143 To secure lines of communication American engineers had established in China, the signal corps rose to the occasion, dispatching matériel and soldiers to build and maintain 235 miles of telegraph line and all necessary equipment for communications in the event telegraph wires failed, such as signal flags, heliographs, lanterns, telescopes, and other items.144 To ensure US forces could campaign in winter, the ordnance department provided 4,000,000 rounds of small-arms ammunition and additional machine guns.145 When hostilities erupted in China in late spring 1900, the United States possessed no supply depot in the Philippine Islands for the express purpose of sustaining military operations beyond the archipelago. Indeed, in 1900, the Philippine Islands presented their own military challenges to the United

144 Report of Secretary of War Elihu Root, in Annual Reports of the War Department for the Fiscal Year Ended June 30, 1900, 8.
145 Ibid.
States, and forces there confronted a formidable task in suppressing guerrillas and securing order in the islands. These efforts required considerable manpower and matériel. No wonder, then, that in mid-June, Philippine Division commander Gen. Arthur MacArthur was reluctant to release even one regiment from Manila for service in China, and balked at the request for a second regiment little more than a week later.¹⁴⁶ In light of these conditions, and when one considers the element of strategic risk in deploying forces from the

¹⁴⁶ Telegram of Gen. MacArthur to Gen. Corbin, Manila, Philippine Islands, 16 June 1900, in Correspondence Relating to the War with Spain and Conditions Growing Out of the Same, Including the Insurrection in the Philippine Islands and the China Relief Expedition, between the Adjutant-General of the Army and Military Commanders in the United States, Cuba, Porto Rico, China, and the Philippine Islands, from April 15, 1898, to July 30, 1902, 1:412; Telegram of Gen. MacArthur to Gen. Corbin, Manila, Philippine Islands, 24 June 1900, in Correspondence Relating to the War with Spain and Conditions Growing Out of the Same, Including the Insurrection in the Philippine Islands and the China Relief Expedition, between the Adjutant-General of the Army and Military Commanders in the United States, Cuba, Porto Rico, China, and the Philippine Islands, from April 15, 1898, to July 30, 1902, 1:417.
Philippines to China, the amount of supply mobilized to sustain the China Relief Expedition and the timeliness with which troops arrived in the theatre merits close attention. The Ninth US Infantry, for instance, reached China from Manila in 19 days after receiving its orders, and with sufficient combat readiness to begin its campaign.\textsuperscript{147} In all, the United States expedited matériel and men for, engaged in, and sustained two campaigns in Asia with remarkable simultaneity. Writing for readers in the \textit{North American Review}, Capt. Crozier summarised the matter plainly and with characteristic insight:

> When the hampering conditions under which it worked are appreciated, credit should be given by the country to the administration of the War Department for putting into the field, as promptly as it did, a force of respectable numbers, which was able to give a good account of itself. What could have been done without the Philippine base, forms a fit subject for reflection, when it is understood that every soldier, every pound of ammunition and supplies, and every wheel of transportation which reached China in time to start on the relief expedition, came from that possession; lacking which, we would have been unable, like the Germans, to render effective co-operation in the relief of our people.\textsuperscript{148}

A perceptive and talented soldier, Crozier would later serve as a brigadier general, as president of the US Army War College, as ordnance chief of the US Army, earn a second star, command the northeastern department, and retire from the service in 1918. In 1920, he authored a thorough commentary on the state of American ordnance, military preparedness, and modernisation.\textsuperscript{149}

Unlike the Seymour expedition, which lacked sufficient manpower and failed because Boxer forces harassed and impeded its advance, thereby depriving Seymour of vital ordnance and subsistence, the column that succeeded in relieving the beleaguered western legations in Peking benefited from a serviceable logistical and supply network to and within the theatre of operations. True, American forces in August faced less resistance than those who had marched with Seymour’s column. But this was because the deployment of additional US soldiers to China, and the theatre-level logistics necessary to sustain them, had changed the operational environment significantly. The increasing weight of American forces in China in July largely succeeded in

\textsuperscript{147} Huston, \textit{The Sinews of War}, 332.

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FIGURE 5  Gen. Wm. Crozier. Image is in the public domain.
SOURCE: LIBRARY OF CONGRESS, WASHINGTON, DC
deterring Boxer aggression; concurrent with this, coalition forces defeated Chinese imperial troops and Boxers at the Battle of Tientsin, a fight one contemporary noted for its severity, tactical richness, and critical importance for the campaign.\textsuperscript{150} The military events of July and August stand in sharp relief to Admiral Seymour’s failed June expedition, a testament to American logistics and supply. After July, Americans sustained a combat-ready force in China that Boxers and imperial Chinese dared not and could not attack. What resistance the Chinese could organise, Japanese, Russian, and American forces obliterated on the August march to Peking (though Japanese and Russian troops, ahead of US forces in the order of march, had the tactical initiative in these actions). All told, the availability of Manila as a primary base of supply, the use of Nagasaki as an efficient secondary base of supply, the use of Taku as a staging area, and the capture of Tientsin as an advanced base of supply allowed for the ultimate distribution of matériel and men in the field of operations, where conventional modes of moving supplies by rail, river, and road sustained combat readiness during the march to Peking.\textsuperscript{151} In the end, concluded Crozier, while the Americans lagged their coalition partners in organisation, “in the character of their material, animate and inanimate, the troops of the United States excelled”.\textsuperscript{152}

On first glance, it may seem tempting to dismiss the American logistical triumph in China. After all, with steam power, railroads, wagons, horses, and mule trains as the primary means of logistical support to – and supply within – the theatre of operations, the expedition would seem to share the character of nineteenth century conflicts so marked by antiquated technologies and modes of transport. US Army cavalry even made a mounted charge in China, evidence of the campaign’s nineteenth-century character in the realm of tactics.\textsuperscript{153} Critics may also argue that the military lessons derived from Seymour’s failed expedition, and the successful August expedition – namely, that no relief column in China could survive with only a railroad as its primary artery for supply, or without a strong advanced base of supply – appear obvious or simple in retrospect.

“Everything in war is very simple”, the Prussian theorist Carl von Clausewitz wrote when describing the friction inherent in armed conflict, “but the simplest
thing is difficult.”154 Hardly simple, global logistics and theatre-level supply proved difficult in China. In spite of numerous challenges, however, American forces achieved something unprecedented in their China campaign: the projection and sustainment of US military power on a vast geographical – indeed, a truly hemispheric – scale. From their experiences in the Philippines and in China the Americans gained valuable technical expertise in solving military problems, including the ancient difficulty of transporting mules and horses by sea.155 That the Americans would succeed in sustaining their combat operations was not a foregone conclusion, nor can their success be explained away by focusing on the strength or weakness of armed resistance that US troops encountered there.

But more than this, American superiority in sustainment in China pointed to a future in which large-scale combat operations on land and at sea would require careful integration and greater logistical support than in previous armed conflicts. As one artillerist writing in the Journal of the Military Service Institution of the United States observed, the American experience in China, combined with the lessons of other contemporaneous conflicts, had demonstrated that the future of warfare lay in combined operations that would require “the transportation of armies over sea on a large scale” and the difficult problem of naval convoys.156 In like manner, a US Marine writing in 1906 noted that the China Relief Expedition proved the timeless complexity inherent in maritime landings on hostile littorals, and argued that future commanders needed to be men “of more than ordinary ability” who understood the intricacies of joint sea-borne operations and the sustainment necessary for their success.157 American joint military operations during the years of 1917 to 1918, to say nothing of 1941 to 1945, more than validated these assessments.

Acknowledgments

This article grew from an original and unpublished case study that the author developed for internal and instructional use in the Department of Military

154 Carl Philipp Gottfried von Clausewitz, On War (New York, 1993), 138; “Friction”, Clausewitz wrote, is “the force that makes the apparently easy [in war] so difficult” (p. 140).
Strategy, Planning, and Operations at the US Army War College. The author is grateful to Thomas Bruscino and COL Ryan Seagreaves, US Army, for reading this article and for offering helpful comments for its revision. He is grateful, too, to librarians at the US Army Heritage and Education Center who offered valuable assistance. Finally, he is grateful to the editors of the *International Journal of Military History and Historiography*, as well as the anonymous reviewers, for their enthusiastic support of this article and for guiding it to publication.

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