

Logistical Operations during the Yorktown Campaign, 1781

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Logistical operations differ in nature from maneuver operations and the complexity of the Yorktown Campaign provides an excellent Revolutionary War example of this since it has all the phases of modern logistical operations. The actual siege, which dominates most studies, represents only a short part of a much larger campaign. From a logistical perspective, Lieutenant General George Washington was projecting his force from one department to another. Once he learned the French fleet, which was critical to his campaign plan, would not sail further than the Chesapeake Bay, he decided to deploy a portion of his main army along with the French army in New York to Virginia where they would link up with Continental forces and militia already there. This campaign also involved strategic as well as operational level transportation since forces deployed from overseas as well as from one theater of operation to the next. There were several key intermodal operations along the way, in particular the transfer of men and material from boats at Christina Bridge overland to the Head of Elk and then aboard awaiting ships in the Chesapeake Bay. Since the armies deployed by both water and ground transportation, they conducted reception, staging, onward movement and integration in the vicinity of Williamsburg and Gloucester. The water deployment required ship-to-shore discharge operations, which was one component of reception. Once the combat force was assembled (or integrated), the logistical focus shifted to sustaining the force; and upon the surrender of the British army, the Continental Army and its British prisoners had to be retrograded out of the Middle Department to reduce the burden of sustainment.

The operations in the south had thinned the Continental Army ranks in the north, so General Washington could not concentrate enough forces anywhere to fight anything other than a war of containment. The arrival of 6,000 French soldiers under Lieutenant General Jean-Baptiste Donatien de Vimeur, Comte de Rochambeau in 1780, however, boosted his confidence to go on the offensive. When Washington conceived the plan with Rochambeau in May 1781 to invite Admiral Francois Joseph Paul, Comte de Grasse to sail the French fleet up with its contingent of 3,000 troops from the West Indies, Washington wanted to attack Lieutenant General Sir Henry Clinton's forces in New York. That was where the bulk of the English Army was well dug in and Washington apparently was still bitter about the British driving him out of New York back in 1776. Augmented with about 6,000 French soldiers under Rochambeau in Rhode Island and an addition of 3,000 under de Grasse, Washington felt he would have the numerical strength against the British army and the French fleet could negate counter the advantage of the British fleet. This campaign would be a massive undertaking and logistical preparations for such a summer campaign usually began during the previous winter months.

The biggest handicap in supplying and transporting Washington's army this late in the war was the lack of a continental currency that had any value. So the Quartermaster General had to take measures to save money. One of his first acts upon assuming the duties of Quartermaster General in September 1780, Quartermaster General Timothy Pickering received Washington's approval to stop the purchase of horses and wagons for the upcoming 1781 campaign. This he hoped would reduce the expense of feeding and caring for the animals over the winter. In October, he advised Deputy Quartermaster Samuel Miles in Pennsylvania to inspect all army horses in his

state and immediately sell off those deemed unfit. Pickering felt it better to give them away than keep them over the winter when he did not have the funds for forage or pastures. He also appealed repeatedly to Deputy Quartermaster General Petit in Philadelphia for money for the Wagon Department to pay wagoners, reenlist them and properly care for the horses over the winter. By December, Pickering was distressed over the need for funds. What money he earned from the sale of unfit horses would not pay for the care of the remainder for a month. Pickering's plan was to save as much money during the winter months as he could and purchase the required number of draft animals in the spring.

Planning for the summer campaign began months out and started with determining the number of wagons and draft animals needed based upon the size of the army. Congress authorized two wagons for each 80 men, one per colonel, one per lieutenant colonel and major, one for each regimental staff and one for the director of the hospital. Each would be drawn by two horses except the wagon for the colonel's baggage, which would be drawn by four horses. With those requirements, Washington's Chief Engineer, Lieutenant Colonel Louis Le Begue de Presle Duportail, estimated the number of horses and oxen needed for the upcoming campaign based upon the requirement for 64 horses and 32 oxen for the commander-in-chief's use, 22 horses and 32 oxen for each infantry regiment, 20 horses and 40 oxen for an artillery regiment, and hundreds more for sappers and miners, artificers, commissary and staff. His calculations totaled to 3,106 horses and 2,132 oxen.¹

The next step was to gain an accountability of what was projected to be on hand during the campaign season. The shortages would then be acquired prior to the beginning of the campaign, which Washington wanted ready by May. In January 1781, Pickering surveyed the number of horses and oxen in Pennsylvania, New Jersey and New England and determined he had enough to meet the army's needs for the next campaign. Taking into account what would be available the Wagonmaster General should then allocate the resources to where they would serve best. However, Pickering performed this duty and proposed assigning soldiers from different states teams they were familiar with, such as the New England soldiers had experience handling teams of oxen while soldiers from other states were more acquainted with handling horses, but Washington directed that the slower moving oxen be employed primarily hauling baggage and provisions while horses be assigned to artillery and cavalry. He, however, approved Pickering's suggestion of issuing two-horse tumbrels to haul officer baggage and camp kettles. These were cheaper to construct than wagons.

Even though Pickering felt he had enough draft animals in January, he still anticipated buying more. Deputy Quartermaster Ralph Pomeroy in Connecticut received a good response to his advertisement for oxen, but the price of 10 shillings per day was higher than expected. Anticipating the price would increase on account of competition with purchasing agents with the French army, Pomeroy felt it advisable to pay it. Pickering planned to hire all the ox teams he needed except for 46 he expected to pick up in New York and New Jersey. However, he waited until April to ask Deputy Quartermaster John Neilson in New Jersey to contract for the ox teams. If he could not acquire the required number then Neilson was to provide the like number of four-horse teams available.

¹ CMH, *March to Victory; Washington, Rochambeau, and the Yorktown Campaign of 1781*, Washington, DC: Center of Military History.

As June arrived, the numbers fell considerably short in June. For example, Deputy Quartermaster Hughes had reported in January he had 1,200 horses only to report in June he had just 649. Consequently, Pickering sent out an urgent request to hire four-horse teams, but by mid-July, neither Hughes nor Miles in Pennsylvania had any success hiring the required number. Many owners refused to work for the army again because their wagons were worn out. Fortunately the army had plenty to spare, so Pickering proposed issuing each owner of a four-horse team a wagon as part of an advance payment. Neilson, however, doubted the efficiency of the proposal.

The French, on-the-other-hand, contracted for 210 wagons with four ox teams each, as well as 239 drivers and conductors. Their wagon train required 855 horses and 600 oxen and their artillery required another 500 horses. Rochambeau did not care for oxen though. Because of their slow rate of march they would not arrive in camp until night, long after the arrival of the troops. The soldiers had to wait for those wagons to set up camp and cook their meals. The advantage the French had over the Americans was they could pay in coin.

Along with transportation, the acquisition of supplies and provisions were critical for the conduct of any campaign. Throughout the war money had always been a major issue and increasingly so as the war wore on. The Commissary General of Provisions required the states to deliver their quotas to the locations designated by the Quartermaster General, but money had always been an issue. On February 6, 1781, Congress took significant steps in the management of the war and authorized three executive departments, Treasury, War and Marine. Congress appointed Robert Morris the Superintendent of Finance on May 14, but he would not assume the duties until June 27. With an almost worthless continental currency, empty treasury and exhausted credit, Morris inherited this crisis during the critical part of the planning, but this coincided with significant events overseas.

Fortunately, Benjamin Franklin had secured a loan from Holland of ten million guilders, about seven million in dollars, and the French foreign Minister, Charles Gravier, Comte de Vergennes, provided a gift of nine million livres, almost two million in dollars. It would not arrive during the campaign, but Morris could plan on this as advanced credit.

Although Morris had no responsibility for provisioning the army, the dire situation required it. Congress had before it a bill authorizing Washington to seize flour wherever he could find it. Instead, Morris used his own personal credit and solicited the aid of Deputy Quartermasters Thomas Lowrey in New Jersey and Philip Schuyler in New York to purchase 1,000 barrels of flour each with the promise of reimbursement. Within a month, both had procured the desired amount and then Morris requested Lowrey purchase another 1,000 barrels while Pennsylvania empowered Morris to procure its quota of supplies. Morris calculated that the purchasing agents of the commissary were costing the army the equivalent of 50,000 rations, so he introduced a new system of contracting directly with private businesses believing competition would reduce costs. He also saw mismanagement in the system of supply, as provisions deposited in other parts of the states had gone to waste because the cost prohibited transporting them. So he proposed selling the unused provisions for cash that could be used to contract supplies needed elsewhere. Although not his responsibility, Morris soon found himself deeply involved in

procuring supplies and contracting transportation for the Continental Army for its upcoming campaign.

For the upcoming land-sea campaign against the British in New York, Washington needed a fleet of watercraft. So Deputy Quartermaster Hughes inventoried all government owned boats on the Hudson and Mohawk Rivers and submitted his report to Washington in April. He had 195 boats of various kinds that had been stored for the winter, but only 18 were serviceable. Fortunately, the majority were repairable. The list included two barges, two scows, and three skiffs in good condition. Of the 12 flat bottom boats, six were serviceable and five were repairable. Of the 12 gun boats, one was in good condition and ten needed repairs. The two whale boats were both in need of repairs. Two of the three schooners needed repairs, and a sloop and pettiauger were in good condition. The remaining 157 boats were bateaux and most needed repairs. Washington ordered the boats repaired and new ones constructed as quickly as possible. Although transportation was a Quartermaster function, Washington assumed direct supervision in coordinating watercraft.²

As the summer neared, Washington examined what combat power he would have available for the campaign. On May 22, Washington met with Rochambeau and Major General Francois-Jean de Chastellux at Wethersfield, Connecticut, four miles south of Hartford, to plan the summer campaign. Since Clinton had weakened his force in New York by sending Cornwallis and Leslie south, they would never have a better time to strike. Rochambeau had asked for an additional division but received word from Versailles on May 7 that his request was denied. However, he was informed that the Admiral Francois Joseph Paul, Comte de Grasse had set sail with the French fleet from Brest for the West Indies in April. Rochambeau then wrote Admiral Comte de Grasse to sail up with Admiral Jacques-Melchior Saint-Laurent, Comte de Barras to close New York harbor. So the next step was for the French army to join up with Washington's main army around New York.

In preparing for their march to the Hudson, the French army had the luxury of a war chest of coin. Rochambeau ordered food and forage distributed throughout line of march and directed elements of his army camp in different locations so as not to burden the local population. Rochambeau's chief commissary, Claude Blanchard, would precede the French column purchasing and bartering for provisions. The assistant quartermaster generals for each division selected the routes and pioneers preceded the columns repairing roads and bridges. The horse drawn cannons, ammunition wagons, and traveling forges led each division followed by the infantry. The French wagon train consisted of 210 to 220 wagons.³ The artillery baggage train was followed by the baggage train of the staff and then the regimental baggage train with additional wagons to police up stragglers, several for the hospital, and those of the butchers. Rochambeau's personal baggage train consisted of seven wagons and each regiment had 12 to 15 wagons: one for each of the ten companies, up to four for the commander and his staff, and one for stragglers. The last march order consisted of the wagons hauling general supplies, the wheelwrights and farriers. Rochambeau's force began its march to join Washington at White Plains on June 18. Brigadier General Armand Louis de Gontaut, Duc de Lauzun's Legion of

² Risch, *Supply Washington's Army*.

³ Different eye witnesses vary in the exact number of wagons in the official French train from 210 to 220. Dr. Robert Selig believes the number of wagons may have been as high as 300.

foreign volunteers left its winter camp in Lebanon, Connecticut on June 21 and guarded the flank of the main body. While Blanchard and other supply officers complained of the lack of cooperation from the local populace, they acquired enough provisions and marched across Connecticut to New York.

Immediately upon the arrival of Lauzun's Legion, Washington wanted to attack the British. Washington had less than 4,600 men in his main army at White Plains. He proposed a two-pronged night attack by boats on the forts on the north end of Manhattan Island. Eight-hundred men under the command of Major General Benjamin Lincoln marched from Peekskill to Teller's Point and then paddled down river on the night of June 1 reaching Dobb's Ferry the next morning. The rest of Washington's army vacated its camp at daylight and took up position above King's Bridge on the morning of June 3. Lincoln then crossed the Hudson and landed at old Fort Lee. Lauzun's 600 men had recently arrived after a long weary march when the attack began and was repulsed. The combined French and American threat to New York, however, convinced Clinton to order the transfer of 2,000 troops from Cornwallis, which he later cancelled. Any attack on the British army in Manhattan Island required the use of watercraft.

By June, Washington was growing impatient over the lack of progress with the boats. On June 10, he requested a list of all boats from Albany to Dobbs Ferry and whether they were serviceable, repairable or irreparable. Washington needed 200 bateaux for his campaign and General Schuyler offered to construct 100 bateaux in 20 days. Washington, however, needed another 100 built in 30 days. This construction and repair created a great demand for oakum, tar and nails. If vendors would not voluntarily sell to the army, Washington authorized Pickering to impress whatever he needed under warrants from either him or the Governor of New York. This would force the merchants to accept the worthless Continental currency or promise of later payment. Pickering in turn appealed to Deputy Quartermasters Samuel Miles and John Neilson to send the building materials from Pennsylvania and New Jersey upon promise of payment to the wagoners upon delivery. The right size and quantity of nails seemed to be the issue in Pennsylvania, but Mr. Ogden offered to provide 300 pounds weekly in return for either coin or an equivalent amount of paper money. Unfortunately, Pickering needed 1,600 pounds of 8-penny and 2,200 pounds of 10-penny nails in 20 days far more than Ogden could produce. Running out of time, Washington wanted those already fit for service sent to West Point at once since the French were already on their way.

Fulfilling ground transportation requirements also grew more urgent as the time for the campaign approached. There were also increases to the original requirements. On July 1, Knox added a request for 205 horses for his artillery carriages and another 40 to haul spare ammunition. Major Thomas Cogswell, the Wagonmaster General, also requested 500 horses. So on July 12, Pickering sent an urgent request to Pomeroy in Connecticut to hurry up on hiring the oxen. Pickering likewise wrote Deputy Quartermaster Hughes in New York to hire teams on promise of payment. Washington issued Henry Dearborn, the Deputy Quartermaster with the main army, instructions to impress teams immediately. On July 20, Pickering informed Henry Dearborn he needed to impress 100 large draft horses and from those inhabitants suspected of Loyalist sympathies in Bergen County. Impressment was always considered a last resort and as teams arrived from Pennsylvania Pickering suspended the impressment. The time had finally come to act with what ground and water transportation was available.

The French army arrived at Greenburgh, New York with 350 officers and 4,391 men under arms on July 6. In attendance were about a thousand civilians. Missing were 683 soldiers on detached service and 227 had been left in hospitals along the route. Once combined, both armies conducted a reconnaissance in force of British defenses from July 21 through 24 only to realize they did not have the numbers to defeat combined 10,500 British regulars and Loyalist troops.⁴ The states had unfortunately not recruited their quotas of men. So Washington needed not only the French fleet but the augmentation of the additional 3,000 French soldiers that accompanied it.

While waiting for the arrival of Comte de Grasse's fleet, Washington continued operational planning. On August 1, he recorded in his diary he had 100 new boats constructed by Schuyler at Albany and a similar number at Wappings Creek along with the old ones that had been repaired. He believed he had enough boats for ferrying troops in an assault on Staten Island. On August 2, Major General Gilbert du Motier, Marquis de Lafayette reported that Cornwallis was constructing earthworks. Lafayette had accomplished his mission of containing Cornwallis; only the French fleet could prevent his escape from Virginia. It was then Washington also contemplated possible operations in Virginia against Cornwallis.

Deployment south

The priority for the French navy had been the Caribbean. Because the Spanish navy offered to secure its sea lines of communication, the French fleet was released to participate in combined operations along the coast of North America for a short period of time. On August 14, Washington learned that Comte de Grasse's fleet of 29 war ships and 3,000 infantry was sailing north but only to Chesapeake Bay and would not remain longer than October 15. Consequently, Washington had to abandon his plan to take New York and instead head south to Virginia where his and Rochambeau's armies would combine with about 1,200 Continentals under Lafayette and however many militia the Governor of Virginia could raise. Washington had previously sent Brigadier General Anthony Wayne with his brigade of the Pennsylvania Line to reinforce Lafayette in Virginia in May.

On August 17, he and Rochambeau wrote to Comte de Grasse to send to the Head of Elk at the northern end of Chesapeake Bay all his frigates, transports and vessels in order to sail the French and American troops down the bay. He also wrote Pickering to collect all small craft on the Delaware River capable of transporting troops from Trenton to Christiana Bridge. Washington also wanted as many vessels as could be obtained at Baltimore and other ports, but as usual he feared he would not have enough.⁵

Washington decided to use his original plans for invading New York City by way of Staten Island as the deception for his movement south. He would march 2,500 men under the command of General Lincoln south while leaving the remaining 2,000 under the command of Major General William Heath to keep the British in New York under observation and defend the Hudson River.

⁴ CMH, *March to Victory*.

⁵ George Washington and Jean B. Donatien de Vimeur, Comte de Rochambeau to Francois Joseph Paul, Comte de Grasse, August 17, 1781. The George Washington Papers at the Library of Congress, 1741-1799.

Logistical planning and preparation for a summer campaign usually began during the winter, but the Americans did not even have weeks to adjust to this change of plans. The Quartermaster General had to select the routes and campsites. Using the system of magazines, the Quartermaster and Commissary Generals would direct the states to provide their quotas of transportation, supplies and provisions along the route of march while the Superintendent of Treasury would assist in procuring additional provisions. This system would reduce the need for a lengthy supply train as the two armies instead marched from supply point to supply point. Knowing he could move men and supplies faster by water, Washington wanted to assemble as many boats as possible at Trenton and sail down Delaware River to the Head of Elk where the two armies would then embark on French transports to sail down the Chesapeake Bay and then up the James River. The armies would then assemble at Williamsburg. With the French fleet leaving in October, the logisticians had no time to waste.

The first transportation issue was getting across the Hudson River since both the Americans and French were on the north side of the Hudson River. To get across the Hudson, Washington needed boats. On August 18, he wrote Major General Alexander McDougall to detail 150 men to bring down 30 boats from Wapping Creek to King's Ferry. Pickering likewise requested Hughes send down every type of vessel he could find; and then on August 19, Washington sent Pickering to King's Ferry to supervise the crossing.

On August 20, the boats began ferrying the two armies across the Hudson River from King's Ferry to Stony Point. The 2,500 American soldiers crossed on August 20 and 21 and camped at Haverstraw. Pickering left some wagons of the commissary and quartermaster so as not to delay the French crossing. Approximately 4,600 French completed their crossing from August 22 to 25. While at Stony Point on August 24, General Lincoln ordered the men to draw two days rations of beef, a two-week supply of soap and candles, and three days of flour with instructions to bake bread that afternoon. They would begin their march the next day.

A road-bound army could average 10 to 15 miles per day. Consequently an overland march would have the armies arrive in early October shortly before the date the French fleet would sail back to the West Indies and additionally the soldiers would arrive tired. Because of the importance in moving by water, Washington again took direct control over the planning and coordination of water transportation. The Head of Elk on the north end of the Chesapeake Bay would become the port of embarkation for the French and American armies. So on August 24, Washington wrote Admiral de Grasse from King's Ferry that he expected to arrive at the Head of Elk by September 8. He urged de Grasse to arrive with enough frigates and transports to move both armies. He also mentioned that Comte de Barras had left Newport, Rhode Island to join de Grasse's fleet in the Chesapeake. If Washington could also acquire enough boats on the Delaware River at Trenton or Philadelphia, then he could also expedite his movement to the Head of Elk. So Washington also wrote Deputy Quartermaster Miles in Pennsylvania to round up all the available boats surrounding Philadelphia capable of navigating the Delaware River.

In addition Washington sent 30 flat bottom bateaux capable of carrying 40 men each mounted on carriages across with the French. They would accompany the American column with the initial intent to deceive the British into thinking they would be used to ferry the Americans across to

Staten Island. He also planned to use them in Virginia. As far as the soldiers knew, they were heading south to attack the British from the south end of New York.

As the Quartermaster General, Pickering had to select the overland route. While the Americans were crossing the Hudson on August 21, he had instructed Philip Pye to reconnoiter the route from King's Ferry down to the Ramapough River and report on the condition of the roads and bridges. He later wrote Lieutenant Colonel Henry Dearborn to have Colonel John Neilson show him two fording sites at Trenton where he would see if they could cross with wagons.

Having selected the route, Pickering would remain behind to determine the number of wagons to accompany each unit or would meet up with it along the line of march. Since speed was of the essence, the army should travel as light as possible. He recognized the problem of officers taking excessive amount of personal baggage. So he recommended field grade officers of the regiment be allowed one covered wagon, another covered wagon for the staff, and three open wagons for the tents and kettles of the men. He wanted to keep officer baggage separated from that of the enlisted and from that time forward if any officer baggage was found in the tent wagons, it should be thrown out. Washington agreed this detachment of the Continental Army under Lincoln should consider themselves light troops. On August 22, Washington issued instructions in his general orders that field grade officers of the regiment be allowed one covered wagon, regimental staff two covered wagons and one open wagon for every hundred men. He emphasized that commanders should make sure officer baggage was in its appropriate wagon and the Wagon Master General was directed to throw out any officer baggage he found in the wagons designated for soldiers. Two days later, Lincoln likewise reiterated that the Quartermaster General was instructed to throw out any officer baggage found in the wrong wagons. Apparently some officers seemed to have a problem traveling light.

With the plan changed to marching nearly 450 miles south to Virginia for a siege, Pickering needed more wagons and teams than originally planned. So he set about collecting oxen from both sides of the river to provide General Knox with 24 ox teams at the artillery park at New Windsor. Pickering also asked Heath for temporary use of his ox teams to transport additional stores, entrenching and artificer's tools, sandbags, clothing and boats since his command would remain in a static defense. Pickering would coordinate land transportation through his subordinate deputies in each state.

Washington wrote Lincoln that since he had not made arrangements with Pickering for the number of wagons to accompany the army from Trenton to the Head of Elk, he requested Lincoln do that. He added that they would also need all covered wagons available in Virginia. Right after crossing the Hudson, Washington wrote to Lafayette in Virginia to collect as many covered wagons and horses as he could for use by his and the French Armies. He later asked Lafayette to report the number of wagons and horses he might be able to make available. He also wrote Thomas Nelson, the Governor of Virginia for assistance in the matter. For the need of wagons, Washington issued the Quartermaster General and his deputy impress warrants to be used only when absolutely necessary.

Doubting the main army would have any luck acquiring more wagons and teams along the way, Pickering had to be creative in solving the transportation shortage. He wrote Deputy

Quartermaster Dearborn he was shipping quartermaster stores in 23 wagons, clothing in 11, boats on 30, and spare provisions in 11 more. Once at the Head of Elk, the boats would be unloaded and the clothing distributed leaving those wagons empty. That would provide some spare wagons. Another solution was to reduce unnecessary baggage. At Dearborn's request, Washington issued a general order instructing his officers to reduce their baggage. Dearborn hoped Lincoln would persuade them to leave most of their personal baggage behind at Trenton. The fact that they had to remind the officers not to mix their baggage with the enlisted wagons hinted they did not reduce much.

Using the magazine system, both the French and Washington's armies would need forage and provisions delivered along their routes of march. As a pattern the armies would draw several days' rations and march to the next magazine or supply depot along the route to draw the next days' rations. They would continue this process until they reached the Head of Elk where they hoped to board vessels. With Pickering occupied planning the route and coordinating transportation, Robert Morris took a more active role in assembling the provisions along the route and corresponded directly with the commissary generals, their agents, the deputy quartermasters for each state and also the governors. Through correspondence, he only had days to get the provisions delivered to their proper destination.

Since there was already enough wheat and flour on hand to fill 3,000 barrels, Morris directed the Commissary General of Issues, Charles Stewart, to collect all the old flour barrels from the posts on the Hudson and deliver them to Hay. Morris also requested that Rochambeau turn over to General Heath all the flour not needed when they broke camp for the Americans that remained behind on the Hudson. Hay, however, failed to deliver to Heath the quantity promised and in a couple months his men would run short of flour.

Congress had assigned each state its quota of supplies and provisions with responsibility to deliver them to the designated magazine. So Morris appealed to the governors of New Jersey, Maryland, Delaware, and Virginia to deliver their quotas of supplies since the armies were marching through their states. Morris similarly appealed to Udney Hays, the New York agent, to deliver his state's quota. On August 24, Morris directed Commissary General of Purchases, Ephraim Blaine, to also call upon the states of Maryland and Delaware for their quotas of provisions delivered at the Head of Elk. Morris additionally directed that Deputy Quartermaster Thomas Lowrey purchase flour to raise the Pennsylvania account to 4,000 barrels. Morris also asked Levi Hollingsworth, a Philadelphia merchant, to deliver 300 barrels of flour to the Head of Elk, in the event Blaine was unsuccessful in his efforts. Blaine fortunately reported he had completed the request. Even Washington appealed to the Governor of Virginia to have magazines full of forage waiting for them and for the Governor of Maryland to also send forage.

Although the armies were not marching through the New England states, they still had an obligation to provide provisions for the campaign. Morris requested the Governor of Connecticut assist the Quartermaster Department in shipping 1,000 barrels of salted provisions to Newport and then ship the salted provisions along with 30 hogshead of rum stored at Providence down with Comte de Barras when he sailed to join up with Comte de Grasse's fleet. Fearing the governor might not receive the message before de Barras had sailed, he also appealed to the

Governor of Maryland for the same provisions. He also asked Pennsylvania or Maryland for the same amount of provisions.

The Americans also had an obligation to provide for their French ally. Morris likewise directed Blaine to deliver 1,200 barrels of flour to Rochambeau. Since Morris did not yet have the money to purchase it, he urged Blaine to obtain it from the quotas required of Maryland and Virginia. If Blaine could not raise the required amount, he should then contact Mathew Ridley, a Baltimore merchant whom Morris already had an agreement for 3,000 barrels of flour of use by the French fleet.

Soldiers preferred fresh meat to salted meat any day. So cattle would accompany the march. Lincoln instructed the commissary to precede the march to the next camp and have beef slaughtered and ready for issue upon the arrival of troops. Aware the southern states alone would be unable to fulfill the required amount of cattle, Washington directed Heath send 100 head of cattle per week from New England to Virginia. Blaine's Department of Purchases had responsibility for moving the herds south but had no funds to hire drovers. Instead he appealed to the Governor of New York to advance the necessary funds. Since he did not have the money to rent the use of pastures for grazing along the route, Morris requested the Governor of New Jersey issue warrants for impressing pasturage. Fortunately fresh meat was one thing Washington's army did not run short of. So while Morris was busy arranging for provisions stationed along the route, the armies started marching toward Virginia.

The road march began on August 25 with the Americans marching in two columns to keep the length relatively short. The march began at 2:00 every morning with a halt at 5:00 for a breakfast prepared the night before. They resumed the march until noon when they stopped for another meal. The march began again not halting until 5:00 in the afternoon when the soldiers set up camp. At 7:00 the beef was slaughtered and delivered so the soldiers could prepare their evening meal and the meals for the next day's march. The infantry under Lincoln followed a route to Springfield, and the artillery stores and baggage train under Colonel John Lamb by way of Pompton and the two bridges reconnoitered by Pye. The American supply train consisted of 75 wagons; 23 contained quartermaster stores, 11 held clothing, 11 spare provisions and the remainder carried 30 bateaux. The French marched in a separate column with 210 to 200 wagons. At Princeton the two armies merged into a single column toward Trenton on the Delaware River.

On August 26, Comte de Grasse arrived in the Chesapeake Bay with 28 ships of the line and he immediately disembarked the 3,000 French soldiers under Major General Claude-Anne-Montblieru, Marquis de St. Simon with orders to assist Lafayette in preventing Cornwallis' escape to the Carolinas. The French did not bring horses or any ground transportation. Fortunately, Deputy Quartermaster General of the Southern Department, Edward Carrington, just happened to be in Williamsburg and under orders from Lafayette requested the Governor of Virginia to impress wagons for three to eight week's service. He also requested 100 horses be made immediately available for the French officers, their artillery and entrenching tools. Lafayette was similarly occupied impressing provisions and ended up sick with migraines due to what he referred to as "stealing" what the army needed from Virginia citizens.

Meanwhile up north on August 27, the French and American armies assembled near Chatham, Pennsylvania and would proceed to Trenton where hopefully enough watercraft was collected to transport them down the Delaware River to Christiana Bridge. The availability of watercraft became a growing concern. So Washington wrote Governor Thomas Lee of Maryland on August 27 that he needed all watercraft suitable for transporting the carriages, artillery, baggage and stores to be waiting for them at the Head of Elk. He also reiterated he needed a quantity of forage for the cattle that accompanied his army. The Head of Elk was the port of embarkation for the Chesapeake Bay – a critical logistical node along the route to Virginia.

Washington expected to arrive at the Head of Elk on September 8, so they had a little over a week to have everything waiting for them there. Since hiring transportation was the business of the Quartermaster Department, Morris instructed Deputy Quartermaster Donaldson Yeates of Maryland to travel from the Head of Elk to Baltimore to hire on the best terms and credit if possible transports capable of hauling 6,000 to 7,000 men. Due to the urgency, Morris also contacted his civilian business associates for their help. On August 28, Morris wrote merchants, Matthew Ridley and William Smith, in Baltimore gather as many vessels as they could and turn them over to Yeates upon his arrival.

Previously Washington requested Morris establish a magazine of 300 barrels of flour, 300 barrels of salted meat, and 10 hogshead of rum at the Head of Elk. On August 28, Morris replied he had directed Blaine to deliver the 300 barrels of flour, 300 barrels of salted meat, and 12 hogshead of rum to the Head of Elk. He had also added he had written the deputy quartermasters in Maryland and Delaware to procure watercraft, and also asked merchants, Matthew Ridley and William Smith, in Baltimore for their assistance in expediting the business and acquiring watercraft in the Chesapeake Bay. Still these efforts came up short and Morris had to purchase provisions from the money needed to pay the troops.

The plan had been for the French and American armies to assemble at Trenton and then take boats down the Delaware to the Head of Elk. Concerned he may not have enough watercraft to embark all soldiers, their stores, and baggage, Washington needed to consider other options. On August 31, Washington wrote General Lincoln who was in charge of the embarkation at Trenton that if there was not enough watercraft then Rochambeau had agreed his army would march to the Head of Elk. Therefore Lincoln should give the American troops and their baggage priority. If there was not enough watercraft to sail the entire American force, Lincoln should then give Colonel Lamb of the artillery priority of movement. Washington recommended that the heavy artillery, which included the heavy cannon, mortars and howitzers, have the highest priority for water transportation. He also recommended the carriages be hauled overland with the light artillery. The clothing and entrenching tools should also be sent by water. He also recommended that the troops that were the lightest and best able to march, and the least suspected to desert because of disaffection, want of pay, or any other cause should march by land.

Lincoln should also send 100 soldiers experienced in handling watercraft to assist in the embarkation at Trenton and debarkation at Christina Bridge. He needed to appoint an officer to superintend the embarkation at Trenton and another to supervise the debarkation at Christina Bridge. The Christina Bridge over the Christina River was connected to the Head of Elk by a

road. The plan was to sail as much as possible down the Delaware to Christina Bridge where it would then travel overland a short distance to the Head of Elk.

Having issued all necessary instructions, Washington then set out ahead of his army for Philadelphia to check on progress there. Before leaving he directed Colonel Philip Van Cortlandt, commanding the 2nd New York Regiments, to follow behind the French army to Trenton with the 30 boats and entrenching tools. Washington and Rochambeau entered Philadelphia on August 30 and stayed at Robert Morris' home. He also met with Congress. Washington had hoped to have enough boats at Trenton or Philadelphia to transport his army. Upon examining the boats, he determined they were inadequate for the transportation of troops and stores, so he and Rochambeau agreed the soldiers should march overland to the Head of Elk. Washington then sent a letter to General Lincoln informing him of this on August 31. In the letter, he stated the Quartermaster General would direct the number of wagons needed at Christian Bridge to transport the army to Head of Elk. Washington also mentioned that Colonel Van Cortlandt would sail his regiment down to Christina Bridge on the 30 boats he brought with him.

Disappointed with the collection of watercraft waiting on the Delaware River, Washington shifted his efforts to securing watercraft at the Head of Elk. On September 1, he wrote Lafayette in Virginia to collect all vessels from any of the rivers around him, except for those of the French, and send them to the Head of Elk. He also appealed to many friends in vicinity of Chester, Head of Elk and the eastern shore for use of their private shipping to transport his army south. He exhausted all possible sources for watercraft for his army.

Having completed arrangements for supplying Heath's army in New York, Pickering arrived in Philadelphia the same day as Washington. He advised Lieutenant Colonel Dearborn, Deputy Quartermaster General with the main army, that 30 boats were being hauled overland and to have carpenters repair any damage. Neilson had also sent down a few barrels of tar for that purpose. Pickering ordered the best 15 boat carriages be disassembled and sailed with the boats to Christina Bridge where once reassembled could transport the boats overland to the Head of Elk in two trips. If only ten were selected then they could complete the portage in three trips. To expedite the assembly of carriages, they were to mark the parts of each wagon the same to avoid mixing the parts of different wagons.

Pickering wrote Deputy Quartermaster General Donaldson Yeates troops would embark at Trenton on September 1 and sail to Christina Bridge where he would receive 700 tons of stores. He wanted Yeates to also make sure the road between the bridge and Head of Elk was in good state of repair and instructed him to take orders from General Lincoln when he arrived there. On September 2, Washington also wrote Brigadier General Moses Hazen to go immediately to the Christina Bridge to meet the boats laden with ordnance and other stores. There Hazen would arrange for speedy transportation across to the Head of Elk. Pickering wrote again to Yeates with instructions to assist Hazen in the debarkation of supplies and either Colonel Lamb or Lieutenant Colonel Stevens would prioritize which ordnance stores to forward first.

On August 31, the American army reached Trenton and crossed the Delaware River on two ferry boats and various sailboats. The French army reached Trenton the next day and crossed the

Delaware the day after. Colonel Van Cortlandt's 2nd New York arrived at Trenton on September 3 and placed their bateaux in the river. They halted at Philadelphia on September 1 ahead of the main army and continued sailing down the Delaware the next day.

The Continental Army then marched through Philadelphia at the viewing of Congress on 2 September and the French paraded before Congress the next two days. Washington wrote in his diary the stores had caught up in a tolerable train. By this time, everyone realized they were heading to Virginia to attack Cornwallis instead of New York. On September 3, the lead element of Washington's army crossed the Delaware into Pennsylvania with the last units crossing the next day and then began their march to the Head of Elk. Washington then wrote to the governors of New Jersey, Maryland and Delaware reminding them to provide their quotas warning of the consequences that might befall the campaign if they did not. He also wrote more letters to many influential gentlemen along the eastern shore of the bay, beseeching them to exert themselves in providing every kind of vessel. Time was running out.

The Head of Elk was the primary port of embarkation for the campaign. Van Cortlandt's 2nd New York, Hazen's regiment along with the sappers and miners reached the Christina Bridge by bateaux on September 4. The next day, Washington left Philadelphia. Colonel David Humphreys, Washington's aide de camp, arrived at the Head of Elk ahead of his commander and wrote to Brigadier General Mordecai Gist in South Carolina to send a number of transports and their tonnage, and ensure they arrive at the earliest time possible. Commissary General Blaine was unable to accompany Washington's Army and remained in Philadelphia. He sent his deputy, George Morton, instead. Blaine directed that he call upon the Maryland and Virginia purchasing agents for provisions. If the army left before Blaine arrived, Morton was to see that sufficient provisions were deposited at magazines along the line of march.

Washington and the American troops arrived at the Head of Elk on September 6, having marched 200 miles in 15 days. That day Washington wrote Pickering the acting heads of departments should join up with the main army. The French army arrived at the Head of Elk the next two days, September 7 and 8, and the American rear guard arrived from Christina on September 9. Waiting for them were a total of 31 vessels: four wood flat bottom boats, four schooners and 23 sloops.

Washington was disappointed the French fleet was not there to meet him. As he would later learn, Admiral Comte de Grasse had just fought the British fleet under Admiral Thomas Graves in the Battle of the Capes on September 5. Although a tactical draw the battle would have strategic implications in that the British fleet returned to New York for repairs leaving Cornwallis trapped in Yorktown. De Grasse's reason for the delay contributed significantly toward the allied victory.

Consequently, Lincoln only had enough boats to load 2,000 troops. Since the French had the most soldiers as well as the largest and heaviest artillery, both Washington and Rochambeau agreed that 1,000 American troops and the Grenadiers and Chasseurs of the Brigade of Bourbonne with the infantry of Lauzun's Legion should embark first. Because of the shortage of watercraft, Washington would march the remainder of his and the French army to Baltimore in hope of finding more boats. So on September 6, Washington wrote to Comte de Grasse the

vanguard of the American and French Armies had arrived and he was sailing 2,000 men down the Chesapeake in two days to rendezvous with Lafayette and St. Simon at some point of debarkation on the James River.

His next chance to board vessels was Baltimore, so Washington then wrote to Brigadier General John Cadwalader, commander of the Pennsylvania Brigade, to use his influence to send to Baltimore all suitable watercraft without the least delay. He also wrote to Nicholas Thomas to influence the citizens of Maryland to send all their watercraft to Baltimore in order to transport troops down the bay.

Meanwhile at the Head of Elk, the soldiers designated to sail by boat spent the next six to seven days after their arrival loading ordnance and stores of all kinds aboard their vessels. Lincoln's first division drew six days of flour, four days of pork and two days of beef for the voyage south. Washington instructed Lincoln and Pickering that he wanted the vessels combat loaded with the sappers, miners and equipment needed on the ground first loaded last.

Because Morris had used the money designated to pay the soldiers to purchase provisions, Rochambeau had advanced the Americans \$20,000 in gold coin, half of their war chest, on the pledge Morris would refund the sum by October 1. On September 8, the Paymaster General, John Pierce, paid the troops in accordance to the list provided by Lincoln, then turned over any money left over to Lincoln. The rest of the American and French armies that were not embarking then started their march to Baltimore the next day.

On September 8, Washington wrote Pickering to send a representative from his department to arrange for halting places for the horses and teams along the route: Bald Friars, Bush, Baltimore, Elk Ridge Landing, Bladensburg, George Town, Falls of the Rappahannock avoiding Occoquan Ferry, Caroline Court House, New Castle and Williamsburg. Colonel Lutterloh was charged with providing the forage and to impress it if necessary. That day both armies departed for Baltimore. Meanwhile, Washington and Rochambeau rode ahead to his home at Mount Vernon where he entertained Rochambeau from 9 to 12 September. From Mount Vernon, Washington sent a letter to Lieutenant Colonel Peter Waggoner on September 9 requesting he take his Tyron County militia to Georgetown and repair the road from there to Occoquan. The wagons, cavalry and cattle of American and French armies would proceed by that route in a few days. Washington also inquired if the lieutenant of Prince William County militia could make improvements upon the Occoquan Ford.

On September 11, Lincoln wrote that his first division of troops had embarked 29 schooners and sloops, and were ready to sail at noon. They were only waiting for the turn of the tide. The embarkation would have taken place sooner had several of the larger vessels not run aground. Colonel Scammell's Brigade, Colonel Lamb's artillery, the 2nd New Jersey, the sappers and miners, and Lauzun's grenadiers, chasseurs, infantry and artillery sailed that day. The next day, Lincoln sailed with the 1st New Jersey. Van Cortlandt's New York regiments followed on their bateaux until better vessels became available. Hazen's regiment and the Rhode Island regiment boarded the bateaux they hauled down from the Hudson and would set sail on September 15.

The flotilla arrived at Annapolis, Maryland on September 12 where the soldiers learned de Grasse had sailed out to engage the British fleet but they had to wait three more days to hear the outcome of the battle. Learning the good news, the flotilla set sail again on September 15.

Meanwhile Washington left Mount Vernon on September 12 and arrived at Williamsburg two days later. On September 15, Washington wrote Comte de Grasse the troops that did not embark at the Head of Elk were marching to Baltimore. Washington eloquently pleaded for his assistance but soon learned Comte de Grasse had already sent transports on their way.

Seventy-nine schooners and sloops taken into service between August 30 and October 2 awaited the allies at Baltimore. The seaworthiness of the commercial vessels disappointed Antoine Charles du Houx, baron de Vioménil who refused to board his French soldiers on them, preferred to march his army overland instead. The Americans were not so preferential and preferred to sail to Williamsburg in anything that floated. While the American army encamped at Howard's Hill outside Baltimore, they slaughtered 600 head of cattle and salted them for the voyage to Williamsburg. They then boarded the vessels at Fell's Point and set sail on September 16 and 17.

While the French were marching toward Virginia, Vioménil received a message from a courier on the morning of September 17 that 15 transports from de Grasse's fleet had reached Annapolis. He then turned his army around and arrived at Annapolis on September 19. Over the next couple days the French army loaded the artillery, baggage and infantry, and then sailed on September 21 reaching the James River in 24 hours. Vioménil had decided to send Lauzun's hussars ahead to Gloucester to reinforce 1,200 Virginia militia under Brigadier General George Weedon since Tarleton's dragoons were on that side of the York River. Lauzun's Legion took the 210 to 220 empty wagons, artillery horses, and oxen with them to Virginia.

With his duties in Philadelphia completed, Commissary General Blaine joined up the army in Virginia. There he and Charles Stewart, Commissary General of Issues, selected deposit sites along the James where supplies shipped down the Chesapeake could be transferred to ship to shore. Blaine then rode to the eastern shore of Maryland to supervise the loading of cattle to the landing sites where they were slaughtered and salted for shipment by boat. Blaine later reported Maryland and Virginia had provided a plentiful supply of provisions.

Reception, Staging, Onward Movement, and Integration

Reception, Staging, Onward Movement and Integration is a modern term to describe a complex logistical operation that the US Army has been conducting since the beginning of its history. As the American and French forces arrived by watercraft, their reception involved debarkation and ship-to-shore discharge since the James River was shallow and most deep draft vessels had to anchor in the channels midstream. Since the river was over two miles wide in that area, men and equipment had to come ashore by flat-bottom boats. The infantry and cavalry were moved to either camp sites at Williamsburg or Gloucester for the integration phase and the artillery was moved to the artillery park which served as the staging area. Once everything was in place, then the combat forces advanced upon the enemy to conduct the siege.

The first flotilla of American troops from the Head of Elk arrived at the lower end of the Chesapeake Bay on September 19, but was delayed several days because of stormy weather. All

but a few missing vessels arrived at their landing sites on September 22. Lincoln's first division disembarked upstream on College Creek and marched the mile distance into Williamsburg, which was one of the assembly areas for the encirclement of Yorktown. The French grenadiers and chasseurs disembarked at Burwell's Ferry, a mile down river from the mouth of College Creek, on September 23. The artillery and stores were unloaded at Trebell's Landing, three miles downriver from Burwell's Ferry. All three landing sites were selected because they had roads converging on Williamsburg.

On September 25, the transports from de Grasse and Barras' arrived with the remainder of the French army. Part of Knox's artillery brigade under Colonel Lamb helped unload part of the fleet at Trebell's Landing. The vessels with the French siege guns anchored off of College Landing. The first problem of offloading the vessels and transferring the guns from ship to shore was finding enough scows and flat boats in the neighborhood. The soldiers confiscated whatever vessels they could find but were strictly warned not to steal from or maltreat the local citizens in any way. The next problem was transporting the artillery from shore to the artillery park. None of the horses or wagons promised by Virginia had arrived, because of the shortage of horses, so most of the artillery offloaded had to be moved by hand from their landing sites to the artillery park. Because of the shortage of wagons, Washington had ordered the wagons for his personal baggage and those of other officers and be used to transport ordnance and stores to Yorktown. The bateaux with Hazen's and the Rhode Island regiments arrived on September 26 completing the debarkation of troops and their baggage and all assembled at the outskirts of Williamsburg.

While Washington and Rochambeau's armies assembled outside Williamsburg, Lauzun's 250 hussars had reinforced the Virginia militia at Gloucester Courthouse on September 24, and his infantry arrived with the first flotilla at Jamestown on September 23. They joined up with the hussars at Gloucester on September 28. Brigadier General Claude Gabriel de Choisy from Newport arrived with the siege artillery on September 29. Rochambeau sent him with 800 infantry and marines to assumed command of the troops at Gloucester from General Weedon. Choisy had 2,900 allied soldiers under his command to prevent any British escape in that direction. Washington also sent his watercraft on that side in the event he had to reinforce that peninsula to prevent Cornwallis' escape.

Around 2,500 Continental soldiers under Lincoln joined up with about 1,200 Continentals under Lafayette and a like number under Wayne. Thomas Nelson, then the Governor of Virginia, led about 3,200 Virginia militia as their commander-in-chief. This brought Washington's forces up to nearly 9,000 men. During this integration phase, Washington organized his army into three divisions commanded by Major Generals Lincoln, Lafayette and Friedrich Wilhelm von Steuben. Rochambeau arrived with a little less than 5,000 French soldiers, which augmented a little over 3,000 under St. Simon and 800 Marines from the fleet. The allies had approximately 18,000 men to conduct the siege.

Sustainment

Nearly 18,000 allied soldiers had descended upon the Virginia peninsula, which far exceeded the capability of the local economy to sustain them. The two largest towns on the peninsula, Williamsburg and Yorktown, each had about 2,000 residents at that time. The Quartermasters had to replenish the provisions with those delivered from other states and the transportation of

those cost time and money. Washington's army had brought plenty of meat but was going without bread. So Washington appealed to Congress for help and also urged the Governor of Maryland to send as many supplies as he could ship down the Chesapeake Bay. He also directed Colonel James Hendricks, Quartermaster at Alexandria, Virginia, to procure and load flour on all the boats he could obtain for shipment. Hendricks sent the message to the quartermaster in Georgetown. Three weeks later Hendricks loaded 600 gallons of spirits and 1,000 barrels of flour collected mostly from commissaries in Maryland. The allies had to press the siege before they exhausted their ability to sustain themselves.

With the combined French and American forces trapping Cornwallis in Yorktown and the French fleet blockading the Chesapeake Bay, the outcome had now become a matter of military science. The allied victory depended upon how long it took to dig the siege lines and keeping the British fleet at bay. On 28 September, the American and French Armies marched toward Yorktown. To their surprise Cornwallis had abandoned his outer redoubts, but just the same Washington instructed his infantry to sleep with their muskets ready. By October 1, the Americans and French had Yorktown surrounded. They could not begin the construction of the siege line until the wagons and draft animals arrived. When the overland column of wagons, horses and cavalry arrived on October 6, that night the allies dug their first parallel. The opposing forces only engaged in combat two times; between Lauzun's hussars and Tarleton's cavalry, and the assaults on Redoubts 9 and 10. On October 19, the British army under Cornwallis surrendered to Washington. The actual siege had only lasted 19 days.

Retrograde

To reduce the burden of sustaining this large concentration of men, Washington needed to disperse his Continental Army and the British prisoners throughout the country as quickly as possible. Retrograde operations were the reverse of the deployment. On October 26, St. Simon's 3,000 infantry embarked on Admiral de Grasse's fleet in the James River and on November 4 sailed down to Martinique from whence it came. On November 1, the Continental Army began its march north to winter quarters in New York. Washington likewise sent Wayne's Pennsylvania Line down to the Southern Department. Washington left about 6,000 French under Rochambeau to winter in Williamsburg.

Washington instructed Blaine and Stewart to provision the Continental troops along their route of march; and according to the surrender agreement, the commissaries had to supply the ships carrying Cornwallis and his paroled officers with biscuits and salted meat to return to New York. They had to also provide for the hospital, and issue any surplus provisions to the French. With the dispersion of the troops, Washington also cancelled the order of any further salted provisions and directed Heath to stop sending cattle from the eastern states to Virginia. All surplus cattle were to be slaughtered and salted then stored at West Point for the winter.

Washington's army left 2,300 to 2,500 head of cattle at Williamsburg, many of which were dying of distemper. Blaine asked Wadsworth and Carter, the purchasing agents for the French army, to take their portions. Through some misunderstanding with the Governor of Virginia, they refused to accept them. So Blaine forwarded 500 down to General St Clair's detachment, 700 to Fredericksburg and Winchester to feed the British prisoners and slaughtered 300 at Williamsburg for consumption in the hospitals and by the guards. He requested salt from Virginia to preserve

the meat and store it in magazines for future use. He then sent his deputy, Robert Forsythe, to the governor with instructions for the disposal of unfit cattle. He offered to sell the cattle to farmers with fodder on nine months credit. Blaine completed the disposal by November when his duties as Commissary General and Purchases ended. Charles Stewart's duties as Commissary General of Issues also came to an end then.

On October 25, Colonel John Laurens arrived at Boston from France with not only ammunition and clothing but six million livres, the equivalent of over a million dollars, provided by King Louis XVI. This was a significant step to solving the American financial situation. Pickering dispatched Richard Clairborne to Virginia to pay for the forage taken or damaged by occupying French and American troops. Pickering directed that Clairborne confer with the French to determine how much each army had consumed and that Clairborne would collect the money due from the French Quartermaster General and pay their portion. After the last major battle of the war, the Continental Congress finally had the financial support to fund its war.

Conclusion

Logistical operations have changed little in concept but in complexity based upon a variety of factors. The logistical structure of the Continental Army was a copy of the British just on a smaller scale. The Americans had borrowed the magazine system of distribution of supplies and provisions along lines of communication from the European armies, but the entire system of procurement and contracting was broken due to the lack of currency with any backing. This and mismanagement of transportation complicated logistical operations more than they should have been. For this reason the Continental Army had to travel light. Fortunately, Morris stepped up and assumed greater responsibility than his position as Superintendent of Finance authorized, but the situation required it. The one office that seemed the most absent from this deployment process for some reason was that of the Wagonmaster General. The Wagonmaster Generals seemed to have thought more like wagon masters, concerned with getting from point A to point B, instead of thinking operationally - connected all the dots on ground transportation. Due to the abolishment of the Boat Department, the Quartermaster General lacked a subject matter expert to coordinate water transportation, so the Commander-in-Chief personally took on that responsibility. Part of the problem was the selection of officers to head these two departments. The head of the Boat Department was a boat builder and did not think operationally. For the Yorktown Campaign, Washington needed a single transportation manager who could see the entire deployment from one mode of transportation to the next synchronizing the distribution of supplies and provisions along the line of march. Instead he had a Quartermaster General that planned the route, a Superintendent of Finance that managed the distribution of provisions, and a Commander-in-Chief that coordinated water transportation. Since they were moving less than 8,000 men, this inter-theater deployment had a much greater margin of error for success. The Yorktown Campaign on a smaller scale presented all the phases of force projection that would play themselves out on grander scales in later wars.