

## Out of Thin Air

### The Story of Southern Logistics

A Presentation to the Civil War Round Table of Palm Beach County



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### The Presentation on 02/10/10

- Northern Supply.
- A follow-up talk.
- I am not your man.
- A long delay before even getting down to the research.
- It takes a long time to prepare.
- "Edutainment"



Good evening. My name is Robert Schuldenfrei. Back in February of 2010, I gave a talk called *Manna From Heaven - Northern Supply 1861 - 1862*. After the presentation Gerridine asked if I would prepare one as a

**complimentary** lecture about southern logistics.

I politely suggested to her that "I am not your man" to give this lecture. I begged off as I

knew absolutely nothing about the topic. I did indicate that I would **"look into it,"** never once believing I could find enough material to fill a whole evening.

Doubting I could do the job to the degree of expertise required to stand up in front of this august body, I procrastinated almost a year before even starting to look for material. Unlike northern supply, for which I had read many books, I did not know of even one book on the topic of southern supply. Finally, in June of 2011 I started into the "hunt." The more I looked, the more information I found. I will not claim I am an expert on the subject, but I learned a whole lot more the deeper I got into the topic.

It took me nine months to give birth to this talk tonight! Not only did I need to cover a longer time period, but I found that it was necessary to study many of the senior leaders of the Confederacy. You will remember that with northern supply I only discussed three people in any depth. Here, dozens were involved.

Like my last presentation, any meeting like this must of its very nature fall under the category of "edutainment" rather than scholarly work. I trust that the images,

stories that illustrate my study, and a downright breezy presentation will mask the fact that there was a fair amount of research that went into this chat. You cannot entertain by focusing in on statistics to make your point. I am sure you all are familiar with what Benjamin Disraeli said, and Mark Twain repeated, about lies, damn lies, and statistics. And while I must quote some numbers, I will not put you to sleep with them.

### The Myth of the Ragged Rebel

- Central theme.
- Why did we loose?
- Well led, but poorly fed.
- Out of thin air.



In a manner similar to Bob's Question last time this presentation has a central theme. It is the Myth of the Ragged Rebel. No matter how detailed we get into the stories tonight, we will always return to the theme of failure of southern supply. My goal is that of a "contrarian;" and my talk, titled *Out of Thin Air*, is actually the story of amazing success.

After the cause was lost and the war had ended badly for the South, many southern authors tried to address the question of why did the Confederacy loose. The ragged rebel, well led but poorly fed, seemed to explain away the many of the facts. It is the perfect image to southern apologists. In this light you can argue that the individual rebel soldier or leader was a much better fighter than any Yankee, or 10 Yanks. The more ragged he appeared, and lacking in basic equipment, the more glorious his victories and the easier to accept his defeats.

In fact the South had to build a modern 19<sup>th</sup> century manufacturing economy out of thin air. Without going into the economics of the planned economy, it suffices to say that this would have been a herculean task in peace time, let alone under the guns of war. A brief history of the Soviet Union demonstrates how hard it is to set up and run a centrally planned economy. That they did successfully supply a large army and a home front was to the credit of some amazing men.

It was not easy to put together this presentation. Many of the primary documents were destroyed during and just after the war. The history of logistics went on in the newly restored union that was the United States of America. Many of the men who ran supply in the North continued to do so after the war. Almost all of the

### So little material

- Destroyed documents at war's end.
- Logistics not sexy.
- History is often written by the winners.



Southerners went on to different occupations.

Further, logistics is not sexy. Most of the participants who did write history or memoirs wrote about the glory of victory or the issues of dealing with the defeat at arms. Few wrote about the **accounting** of war. While this is true in general, it is even more to the point with the South in the Civil War.

Finally, history is written by the winners some unknown sage once said. Thus, there was much more material available to me then, when I last addressed this august body.

### Order of presentation

1. Introduction
2. Qualifications
3. 19<sup>th</sup> century logistics
4. Imports – blockade
5. Distribution
6. Production
7. Josiah Gorgas
8. Confederacy end



We have already covered the introduction. Next we will briefly review my limited qualifications to present this material. I want to give you a short description of 19<sup>th</sup> Century logistics, not that it will make an expert out of anyone here.

**Importation** will be developed piecemeal when we discuss make vs. buy, the three major divisions of logistics, and finally when we talk


about blockade running. Physical distribution will be addressed, although whole PhD dissertations could be written on southern railroads alone.

The keystone of my argument will center around production and the story of Josiah Gorgas. This man, largely unknown, was arguably the most important reason the Confederacy lasted as long as it did.

We will end this evening at “The End” of the Confederate States of American. However, I would direct you all to my brief essay that considers the “trick question” of when did the Civil War end. It is my contention that, if it ended at all, it was in the 1950s. The whole raison d’etre for the Civil War Round Table is to continue the discussion while ending the bloodshed.

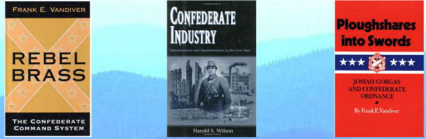
Robert Schuldenfrei

- Economics
- Interest, Civil War
- Interest, logistics
- US Army
- Logistics modeling
- Dad, WW2



The gentleman standing before you is not a professional historian and most of you in the audience know far more about the civil war than I do. I am not, however, without some qualifications. Back in the day I was an undergraduate in Economics. I spent two years in the US Army Transportation Corp where I taught career army officers about computers and how they relate to logistics. For a dozen years I built computer models of industrial distribution systems for Fortune 500 companies. While not pertaining to my own background my late father was in charge of all class 2 & class 4 supplies on the Normandy beach-head.

This is not original work



**"GITTIN STUFF"**  
**Equipping Confederate Armies at the Onset of The Civil War (1861 -1862)**  
BY FRED D. SETH, JR., CFP® OF HARBOUR LIGHTS CHAPTER

Before getting into the “meat” of this evening’s material I must explain that this is not original work. I used four sources in addition to my general knowledge of the Civil War. They are:

*Rebel Brass*, by Frank E. Vandiver

*Confederate Industry*, by Harold S. Wilson

*Ploughshares into Swords*, by Frank E. Vandiver

*Gittin Stuff*, by Fred D. Seth



### 19<sup>th</sup> century logistics, overview

- Commissary, Ordnance, & Quartermaster
- Make, scavenge, or buy
- What the South had at the start of the war
- How logistical thinking changed.

We will not discuss the topics shown on this slide in the strict order presented on same. Although there are many ways to do it, I would suggest that a good way to look at 19<sup>th</sup> Century logistics is a three way division of Commissary, Ordnance, and Quartermaster. Next we will consider the nagging issue that haunted the South of whether to make, scavenge, or buy the material it

needed. We should consider what the Confederacy had at the conflict's beginning. These issues were never fully addressed during the war and it is instructive to note how they changed during the conflict, either by decision or the results of battle.

### Logistics Command, Commissary

- Problems with chain of command.
- Feeding the troops.
- Lucius B. Northrop.
- Contrast with Josiah Gorgas.



Jefferson Davis



James Seddon



Lucius B. Northrop

The Commissary is an excellent place to begin as it illustrates the issues of the chain of command. Lincoln had problems with his generals, but little grief with his logistical staff. Jefferson Davis had just the opposite challenge. The existential point of the Confederacy gave them issues every time they tried to address the unity of command. Having based their legitimacy on

states rights, the question of a single national chain of command stood blocking their way. Nowhere was this more graphically illustrated then with Commissary General Lucius B. Northrop and the nation's effort to feed the troops.

The South was an agrarian nation, so the one problem they should not have had was feeding everyone including the army. Northrop was a personal friend of Jefferson Davis so he had access to the very highest level of command. As we all know, Davis could not or would not delegate. This meant that people who had a personal relationship with him prospered.

Even if we make allowances for things beyond his control, like the sorry state of the transportation system, Northrop was judged inadequate in job performance. Contemporaries called him "the most cussed and vilified man in the Confederacy." Between his lack of abilities to work with subordinates and his perhaps "crony" relationship with Davis, Northrop serves as the "poster boy" for the South's inability to pull together to support the war effort.

We will contrast Northrop with Josiah Gorgas in just a few minutes. Gorgas illustrates how a person of great managerial skill, with no real pipeline to Davis, could work miracles of supply. Even though the South never resolved the basic issue of the States' control of the very means by which to wage war, Gorgas was able to build a manufacturing base to supply the armies in the field. Because of his success we will discuss the Ordnance Bureau in much more detail.

Due to Davis' military background he was fond of giving orders. He had a tendency to "over command" instead of delegating. Thus, many of the men surrounding the President were "yes men." It is no surprise that the first Secretary of War Leroy Pope Walker failed for his only real qualification was his support of Davis. Others, like the next man in this office, Judah P. Benjamin, succeeded because he had the tact to "stoke" Davis and the brilliance to execute his duties with skill.

The position of Secretary of War kept changing. It would be an interesting exercise to compare and contrast Lincoln's problems with generals with Davis' issues with the position of Secretary of War. Benjamin moved on to other positions, and George Randolph took over. Randolph was a fairly competent guy, but was a "rubber stamp." There was an interim secretary for about a week before James A. Seddon took over. We will say more about him below. The last man in this critical job was the general John C. Breckinridge. By February of 1865 it was far too late for him to make a difference, but hope, always a significant part of Confederate life, never died until the end of hostilities... if even then.

In discussing leadership, a word must be said about the Congress. Since the States had the real power, Congress tended to be somewhat irrelevant. Here were a group of guys sitting in isolation in Richmond trying to be effective. In some cases, they really could help. In providing finances for continuing the war effort they had some success, but in most issues they contributed little or made things worse. Leaders of both houses distrusted the military. Congress had no confidence in the Secretary of War who ever held that position. And its fear of the Secretary of the Treasury, for most of the war Christopher G. Memminger, was serious. Worst of all the President dictated to the Congress what it should do. To add insult to injury, most of the time Davis was right.

## Ordnance

- Josiah Gorgas.
- A few words here.
- More details later.
- Northerner who “fell in love” with the South.
- Only Lee prolonged the war more.



The second major branch of supply was Ordnance. It was the bright shining star of Confederate management thanks to its extraordinary head Josiah Gorgas. Much of the rest of this evening’s discussion will center on the Ordnance Bureau, but like the other two supply branches I want to introduce it here.

Except for the end of the war the southern fighting man was fairly well equipped with arms and ammunition. This was the result of Ordnance. Not only did this branch procure the material, it saw to it that it was stored, maintained, and delivered to the troops in a timely manner. Given the lack of production and distribution in the South at the start of the war, this was no small task. Of the 128,300 industrial establishments in the United States, 110,000 were loyal to the Union.

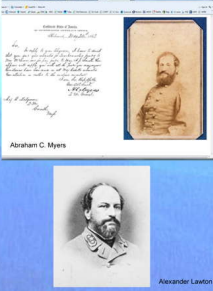
Although time does not permit me to discuss his background tonight, the story of how this man from Pennsylvania came to be the salvation of the Confederacy is most interesting. He was, both before the war and during it, like an eagle forced to trot with the turkeys! But, unlike Jefferson Davis, he got along famously with his subordinates. He had just enough “people skills” to get his way with his superiors. The key to his success was his talent for organization and the ability to change plans when a new problem arose. He was firm when the South needed leadership and flexible when his country need to change to adjust to new realities on the ground.

Although the Ordnance Bureau was narrowly defined to arms and ammunition, as problems developed Gorgas jumped in and took charge regardless of his having the authority to do so. So, at different times he entered foreign affairs and created contracts that had all of the earmarks of treaties with countries. He needed ocean transport so he organized a fleet that look like his private Navy. He ran port operations as would an interior minister. He need plants to make the arms and all types of equipment to stock these factories. Remember, 19<sup>th</sup> century machinery was powered by leather belts, so Gorgas got involved with agriculture. Now, unlike others in senior positions, Gorgas could do all this because he had a tremendous capability to select quality subordinates and to delegate the details to them. Cer-

tainly, no one in the Confederacy did more to prolong the war, except perhaps Robert E. Lee, than did Josiah Gorgas. We will return to more of his exploits shortly.

**Quartermaster**

- Fights with states.
- Abraham Myers.
  - Planning.
  - Centralization.
- Alexander Lawton.
  - Administration
  - Resource census
  - Navy osnaburgs
  - Chickamauga



Abraham C. Myers

Alexander Lawton

The last branch we will introduce is Quartermaster. There were two men who held this post, Abraham C. Myers from the start until August of 1863 and then Alexander R. Lawton. Myers was a very interesting fellow. He was the grandson of Charleston's first rabbi. Formal education was not his long suit. It took young Myers five years to graduate West Point due to

poor grades. He was able to set up a reasonably good formal system of supply. However, three things doomed him to failure. Faced with the same issues as Gorgas, Myers could not solve these issues. First, he was always at loggerheads with the states, particularly Brown of Georgia and Vance of North Carolina. Second, he was inflexible such that when things changed "on the ground" he found it hard to abandon his plans. He stuck with centralization of supply long after it was not working for him. Finally, and probably most importantly, he fought with everyone. He battled his bosses and the men who worked for him. His lack of tact cost him his job. It was widely rumored that his wife, Marian, called Varina Davis a "squaw." Whether this happened or not, by the summer of 1863 the top brass had enough of Myers.

He was not replaced, but General Lawton now outranked Colonel Myers such that the Quartermaster was now Lawton. Actually, forces in the ineffectual Congress continued to fight the promotion into 1864, but he was in control from August 10<sup>th</sup> until the end of the war. There is no doubt that Lawton was a better administrator than Myers, but he was no miracle worker. After a census of resources he pressed for a uniform standard of procurement and production. Let me illustrate the grief that the Quartermaster had to contend with using the story of Navy osnaburgs. Osnaburgs is a rude linen fabric often used for lower class clothing. Lawton's census had shown that the Navy had total control of a factory in South Carolina making same. The plant had the capacity for producing 50,000 yards per month, but the Navy only needed 5,000 yards per quarter. The remainder was left



to the plant to sell on the open market at a considerable profit. At a time when the South needed fabric of all types, to have so much capacity “leak out” was a crime particularly when we had a plant whose output was owned by the Navy. What Lawton did was to try to place the plant under Quartermaster control, take all of the output, and deliver to the Navy what that service needed each month. Slowly this plan came to be implemented, but far too slowly to solve the supply problem for the Quartermaster. Once again we see the basic concept of a loose confederation of states working at cross purposes with the war effort.

The history of warfare is replete with stories of commanders out running their supplies. Longstreet in the fall of 1863 is just one example. With Braxton Bragg in the west and Lee in the east, Lawton had his hands full trying to supply both armies. The plan to reinforce Bragg with Longstreet was a good one and part of that force helped win the day at Chickamauga. But, instead of consolidating their forces in the west in Chattanooga, Longstreet impetuously elected to march against Burnside at Knoxville. With winter setting in Longstreet was sitting at the end of a 1,000 mile, if I may serve up a pun, “Long Street!”

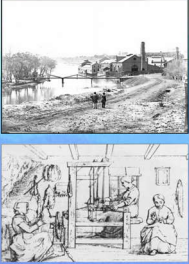
There was no local supplies for this siege. The army being besieged, Burnside's, was far better supplied than Longstreet's command doing the besieging. Shoes and clothing ran low and scavenging for footgear produced almost nothing in eastern Tennessee. Like the Revolutionary War, once again soldiers left bloody footprints in the snow. Frequently rations were only raw corn normally used for animal fodder.

Now the blame game shifted into high gear. Lawton did manage to ship some supplies to Longstreet, but nowhere near enough. Jefferson Davis called on Lawton for a full report. Lawton blamed Lee for stripping the Richmond depot. He said he expected imports to fill the need for shoes and blankets, but these never came. Most of these imports were interdicted off of the port of Wilmington. Finally, Lawton claimed that Longstreet's requests were “of a more extravagant character.” Lawton believed that one third of the request would have been adequate. At this critical time Gov. Zebulon Vance saved Longstreet's bacon by opening up state supplies. During the winter Lee demanded the return of Longstreet. One suspects

Lee did this, not so much to relieve Longstreet's logistical problems, but to enhance the Army of Northern Virginia.

Make, Buy, or Scavenge

- Modest production.
  - Central vs. decentral
  - Building capability
- Import from Europe.
- Scavenge from conquest and/or the battlefield.



The Confederacy was slow to see the logistical prospects before her. There were three ways to supply the army: make the items yourself, buy the items abroad, or scavenge the goods from your own lands or better from the enemy. Like so many countries before and since, the leaders expected a short war. As we will document shortly, the South was in pretty good shape at the beginning of the war. Very few people expected that the new country would have to do any of the three.

As we have already noted, the production and distribution capabilities of the Confederacy were modest in the extreme. Gorgas was one of the few far-sighted individuals who foresaw the need to construct a manufacturing base sufficient to supply a long war. Further, Gorgas was a master at delegating to achieve his goals. As early as July 1861 he had selected George Washington Rains to develop the capability to manufacture power.

Rains too was a genius at organization. He quickly contracted with existing plants to get early supplies flowing. For example the Sycamore Powder Mill outside of Nashville contributed modest amounts of saltpeter. Rains started into enlarging the operation such that output was doubled to 1,500 pounds per day by October and doubled again to 3,000 pounds before Nashville fell in February of 1862.

In Gorgas' mind the issue of centralization vs. decentralization was always churning. Early on he recognized the efficiency of centralizing production in just a few large plants. Three things mitigated against this. First, he early on recognized the inadequate railroad distribution system. Next, he well understood that in war, you cannot put all of your eggs in one basket. The fall of Nashville noted above is a good illustration of the wisdom of such reasoning. And finally, getting labor, supplies of materials, and building large plants was beyond the capabilities of the

Confederacy. Therefore, once he had at least one source of domestic supply he went on to build up other manufacturing centers. Often the first site was Richmond, VA and the second one was somewhere in the deep south like Georgia. Later on we will discuss the strengths and weaknesses of southern factories.

Gorgas was on top of imports from Europe very early on in spite of the fact that he did not have any official authority to conduct “foreign affairs.” Early in 1861 he recommended the government dispatch an agent to purchase foreign arms and ammunitions. Major Caleb Huse was his guy on the continent. Supplied only with letters of credit on the English import-export banking firm of Fraser, Trenholm, & Co. Huse, for all of his later troubles, proved a great move for the new nation. All of this got started with the ridiculous sum of £10,000. Once contracts had been established, the arms had to be transported. Gorgas arranged slow sea passage to Bermuda or the Bahamas where they were transshipped into his ordnance warehouses to await fast transport on blockade-runners. By early 1863 Gorgas received authority to manage sea transportation for the government. It was easy for the bickering officials in Richmond just to let “Josiah do it.” De facto, he became the logistics “general in chief.” Things did not always go smoothly for him. In a minute we will discuss the rise and fall of blockade running, but he clearly was a man of action and he got things done.

The last point is the process of scavenging. When you are in a supply deficit it is “gittin stuff” from the enemy that is useful, as Nathan Bedford Forrest put it. However the South was slow to pick up on this strategy. Early in the war they had plenty and did not think the war would last too long. Evidence of this was the lack of policing the Bull Run battlefield. But, as it became clear that stuff from the enemy was valuable, the South became expert raiders. The Calvary became particularly adept at this. Ocean raiders did not bring much stuff home, but caused the price of insurance to sky-rocket in the North to aid the war effort.

Scavenging meant also taking what is needed from your own domestic supply. As we will learn later critical metals were obtained by cannibalizing finished goods. And the citizens of the CSA were expected to chip in their valuables such as food, clothing, and shelter for the war effort. In this war, like no other before it, every-

one was considered in combat and on the front lines whether they liked it or not.

#### What the South had at the start

- Larger army.
- 4<sup>th</sup> richest country.
- Many federal sites.
- John Floyd.
- Failed to pick up material from the Bull Run battlefield.



Much of the early optimism about the “Second American Revolution” came from a straight forward analysis of what the South had at the start and an under estimation of the will of the North. They had a larger standing army ready for war when hostilities broke out. In addition, the officer corps was larger and acknowledged to be better.

And the Confederate States of America was no “third world” banana republic. It was the 4<sup>th</sup> richest country in the world. It had a well supplied arsenal thanks to all of the Federal installations within its borders. And these “plums” had fallen like ripe fruit even before the fighting got started. When Virginia seceded in April 1861, the U.S. garrison attempted to burn the arsenal at Harper’s Ferry and destroy the machinery, to prevent the Confederates from using it. However, locals saved the equipment, which the Confederate Army transferred to a more secure location in its capital of Richmond.

Of particular note is the action of Secretary of War John Floyd who, before the war even got started transferred tons of supplies either into Southern installations or placed them in position where they could easily be seized. Floyd was not the only one, but he certainly had the greatest positive effect on Confederate logistics early on.

As mentioned above, the battle of Bull Run is a perfect example of smug logistical thinking in Richmond. When the tide had turned and Stonewall Jackson had his new name the victors just stood there, like a stone wall. Did they chase the “blue-bellies” down the road; they did not. And so they let the Yankee’s pick up 175 wagon-loads of materials dropped on the retreat. Apparently no one in the capital thought that these supplies would come in handy just a short time later. Of course, someone in Washington did; it was Montgomery C. Meigs who ordered a scavenging mission to collect up the spoils of war.

So, it is clear that the South was not thinking about a logistical strategy early on in the war. So we should now focus on that thinking and chart how it changed as the



### Logistical Strategy

- Every state supplies.
- Consolidate into centralized supply.
- Enemy action forces decentralization.



war went on. It is good that we should do so, as so much of our knowledge of the war revolves around the military strategy.

As I have suggested to you the ragged rebel is a myth and the South was well equipped to fight a war. As you all know the Confederacy did not have to win the

war at all; it just did not have to lose it. Of course, all these things are clear in hindsight. The urge to “whip those damn Yankees” was just too exciting a prospect to ignore. Secession underlined the fact that each state was in fact an independent country. The Confederacy was just that, a loose alliance to coordinate the war effort. With that in mind it is not hard to understand why each state was called upon to supply the troops from that state regardless of whether this was possible or not.

While this happened in the North too, the “every state for itself” attitude persisted much longer in the South. After retreats in the spring of 1862 the Confederate Senate requested a report of the extent of the material losses. James Pace was dispatched to survey the textile mills of the South. Although he received a warm reception in North Carolina, Governor Vance maintained a vice grip on all state supplies. Promises were made that the state would give over clothing to the central authorities, and Myers back in Richmond counted on the states’ cooperation. However, this proved a forlorn hope, as Vance refused to relinquish control.

Time and again Vance is the poster-boy for the lack of cooperation. At a critical time in the war we have this letter from Lawton to Vance, January 21, 1864.

“SIR: I am informed that the authorities of the State of North Carolina hold a large quantity of woolen goods, partly imported, beyond what can possibly be needed for some time to come to meet the wants of the troops from that State. As all the manufacturing resources of the State have been devoted to the service of the soldiers therefrom, and the State besides has enjoyed, through its enterprise, unusual facilities for drawing supplies from abroad, it occurs to me that there may be on hand excess of other necessary articles, such as shoes and blankets, that be spared for awhile to aid the service at large the stress of the winter months. At all events, I venture to bring the matter to your attention, confident that your public spirit will

lead you to do whatever you can to aid the troops of the Confederacy.

Just at this time we are greatly in want of woolen goods and cloth (heavy) of any description and blankets; shoes, too, would be acceptable. The recent heavy losses experienced by this department in connection with the blockade has restricted somewhat its resources, and if you advance for awhile any of the supplies referred to they will be acceptable, and I will come under an obligation to return the same early in the spring, when the pressure now upon me shall in part have passed by.”

As I have mentioned earlier, Vance sometimes came to the rescue, but more times than not, the states’ put their own need before the nation’s need. This story repeated itself time and time again with all classes of supply.

It was not like the logistics branches of the service did not try, and Gorgas in ordnance did the best of all, but states’ rights was just too popular to completely ignore. In some sense, in the end, the states holding back meant that the later concept of decentralization worked better. But that is not the point. People like Myers tried to centralize supply, at least the management of same. As early as the September of 1861, Myers had set up the Clothing Bureau to manufacture and distribute clothing to all armies. Even with the states holding back, in the period from August 1864 until the end of January 1865 the following issues were made:

104,199 jackets, 140,570 trousers, 167,862 shoes, 157,727 shirts, 170,139 drawers, 74,851 blankets, 27,011 hats, and 4,861 overcoats. Not too shabby at the very end of the fight.

As the war dragged on supply chain issues and distribution became as pressing as production; maybe more so. One illustration will highlight this point: Thirty carloads of uniform cloth sat on sidings in Charlotte, North Carolina, and trains took two weeks to move thirteen boxes of clothing and shoes from Florida to Dalton, GA according to the Richmond Enquirer, November 28, 1862. To make matters worse, both Union troops and local citizens, who were suffering on the home front, looted unguarded trains.

It is doubtful that a policy of decentralization would have helped. Although the South did not pursue a formal policy of decentralization, except in the Ordnance Bureau, we find a lot of evidence that they had de facto centers of production all

throughout the country. Like the aforementioned stories about Vance, states' maintained their local production. As the war came to a close it is surprising how many sites the Yankees were able to torch while defeating Rebel armies.

### Blockade Running – “Buy”

- Success early.
- MAJ. Caleb Huse.
- Funding imports.
- Caribbean whse.
- Delay is an issue.
- Railroad distribution.
- Ports closing.




Photo © 1911 1918 © Confedrate blockade runner Atlantic in 1861

As we already discussed, blockade running was the key to a successful “buy” strategy. The South had early success with imports because many in the North thought that blockading 3,500 miles of Confederate coast line was an impossible task. The newspapers scorned Winfield Scott’s blockade plan as the “Anaconda Plan,” not because it was too hard but because it was not bold. They championed the “On to Richmond” concept.

Many in southern leadership positions had a hand in the running of the blockade, but Gorgas lead the way because he alone wanted the goods bad enough to act like his own Secretary of State. At first blockade running was very successful with 3,465 ships, or 96.8%, getting through in 1861. Sadly, by 1862 the percentage was down to 66.2% and it stayed that way for the remainder of the war. Caleb Huse made many of the deals and Gorgas worked miracles finding the funding; money always being in short supply. Working together with Judah Benjamin in January 1862, they managed to get 3 million dollars of Quartermaster funds transferred to Ordnance for imports. I am sure Myers was pleased about this! When hard cash was not available, Gorgas made sure exports of cotton were made available.

Many people are unaware that the blockade runners only operated near the southern ports. This is because these swift ships could hold only a limited amounts of cargo. They also burned hard coal so as not to generate black smoke. Ideally you wanted these greyhounds to make as many dashes into port as they could. Thus, Ordnance set up warehouses on British islands for transshipment to the ultimate destination. The quality of the imports was generally good to excellent. After the capture of Vicksburg, General Grant thought so much of the 60,000 muskets that fell into his command that he replaced the US arms with Confederate.

There was a fair amount of graft and corruption involved with this import business. It bothered Gorgas, but not enough to let it hold back Huse. Even after an

investigation, Huse continued to be the Confederate's man in London. Secretary Seddon wanted to recall Huse, but either respect for, or fear of Gorgas, had so far restrained him.

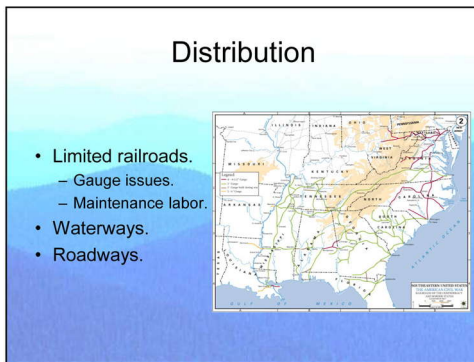
Right from the start Ordnance had their own ships. In July of 1863 they took command of the Collie Line. Gorgas put his brother-in-law, Tom Bayne, in charge of running the Bureau's "merchant marine." And it ran, like all other divisions of Ordnance, efficiently and effectively. Now, in this shipping venture Gorgas had to share cargo space with the Quartermaster, other Army organizations, and the Navy. But it is clear that Ordnance got what it needed because it ran the operation. If it were not for the US Navy taking ships and the shortage of money, this import program would have gone a long way to solve the Confederate logistics' issues.

Delay was the biggest issue facing the import operation. It took time to get funds to Europe, to collect up the cargo, to ship same to the transshipment warehouses, to transfer the goods to the swift blockade runners, and get the material safely into port. Even in the "happy times" of 1861 the first arms shipment aboard the *Fingal* took precious time. The order for arms was placed in the spring but *Fingal* did not make port until September 28, 1861.

Even when a cargo successfully reached port, their troubles were not over. As we will discuss next the railroads in the South were, to put it bluntly, a mess. Even if this were not war-time and the country had desired to focus on importation, physical distribution out of the ports would have been a problem. With a large and effective Navy, the Union could make landings along the coast difficult and harass fixed installations at will. The record is full of Confederate units being pulled from an army to serve as coastal defense forces. Part of the governor's argument for withholding supplies was that they were needed for state defense.

It took a bit of time for the North to get its act together, but once it learned how to operate a blockade it became increasingly effective. The first three novel's of Robert Macomber's "honor" series explains in detail how this was accomplished. One by one the Ordnance fleet was destroyed. After 1862 only three ports remained open: Mobile, Charleston, and Wilmington. This last port stayed open until January of 1865, but by then logistics in the South was pretty much over.





A key element of logistics is distribution. It does you no good to have all of the production and importation you need if you cannot get the goods from where they are to where they are needed. In this time period three modes of transportation were used: railroads, waterways, and roadways.

The rail system in the south could never measure up to the quality and the quantity in the Union. The Confederacy had very few railroads and once the war started, what trackage they did have fell into decay. This map shows that there were tracks of varying gauges which meant that cargo from Montgomery to Raleigh had to be repacked four times. To make matters worse, the men who maintained the rail lines were sent to the front leaving only a skeleton crew behind. The system began to show evidence of disrepair as the first battles were taking place in Virginia. The railroads were maintained by hand, little machinery, few supplies like lubricating oils, and all rails spiked by hand, so the shortage of labor doomed this mode of transportation.

By an accident of geography, the waterways were badly placed for the Confederacy. Even if they held the Mississippi, which they did not, it ran north and south when the need for river transportation was southwest to northeast. Further, when rivers did flow in the right direction, like the Tennessee, they were too shallow where they were needed most. Finally, cargo river craft were easy targets for the inland river Navy of the Union. With 3,500 miles of coastline, the ocean should have provided excellent water transportation. However, what vessels were available were devoted to blockade running and foreign trade. Thus, the waterways provided little aid to the cause.

The roadways both North and South, with a few exceptions, were not much more than bridal paths. The trouble Robert E. Lee complains about illustrates the problem with roads: “Our greatest difficulty is the roads. It has been raining in these mountains about six weeks. It is impossible to get along. It is that which has paralyzed all our efforts.” Once the war passed through an area, all bridges were destroyed. And, like the issues with the railroads, there was not the labor or materi-

### Production – “Make”

- Ownership/control.
- Textiles.
- Clothing Bureau.
- Labor scarcity.
- Tools & machinery.
- Finance.



als on hand to do an adequate job of repair and maintenance.

At this point I should remind you once again that we keep visiting and revisiting the same topics. This is because this is an overview; any one of these items could serve the full length book treatment. Even more

than in the North, property ownership and control was a big philosophical issue in the South. Not only state control, as we have seen, but private factory ownership as well caused headaches. In the agrarian South the population in general and Confederate leadership in particular were suspicious of the capitalist plant owners. As inflation started to eat at the economy, it was easy to blame the mill owners as disloyal war profiteers.

In an early attempt at centralization, Myers established the Clothing Bureau in May of 1861. Not only did this organization serve as a distribution site, but it manufactured clothing too. Too often, however this government agency was in competition with the private factories and states like North Carolina. When the government needed cotton to finance the Crenshaw steamship line, they had trouble securing large amounts of cotton to send to Europe. One often wondered if these operations were on the same side!

Let me give you one other example. When the Federals gain temporary control of northern Alabama in 1862 they took over the cotton and wool manufacturing sites. After the Yankees left the area to chase Bragg, the Confederate Army regained control of the plants. So what did CSA Quartermaster Major George W. Jones do with the newly repatriated mills? He impressed them. Imagine the astonishment of the officers of the Clothing Bureau when Jones presented them with 30,000 drawers and shirts made from his booty.

The shortage of labor plagued the South throughout the war. The Conscription Acts provided for the Army but it disrupted the production of vitally needed war supplies. Factories could gain exemptions if they agreed to government control, however, the uneven management of manufacturing proved to be too much for the Confederacy. Even today, the planned economy is impossible for governments to

managed.

Even before conscription, the rush of volunteers to the Army left many plants with critical skill shortages. For example, after Fort Sumter the Cedar Falls textile mill stood quiet so the workers could send off to the front the *Randolph Hornets* in style. The next day the plant suffered production losses as skilled workers had left to join the fight. The first Conscription Act exacerbated the problem. The Exemption Act of October 1862 tried to place limits on the drafting of men with critical skills. It failed to stem the bleeding as military commanders and recruiters just ignored the Act. The various Secretaries of War did nothing to discourage this behavior. As the war dragged on, even the non-skilled positions felt the drain from the armed forces. Not even the employment of black slaves solved the problem of factory labor and made the problem of agricultural labor worse.

Here is a good example of the problem. Superintendent of Railroads William Wadley reported he could do nothing to improve the failing transportation network, since so many of his mechanics had been conscripted by the army. General Lee fought to retain Wadley's mechanics, which coincidentally impacted Lee's own supply support.

When you try to control a modern economy you first address the obvious needs like labor. What you fail to address is the second and third order needs. For example you are trying to make clothing but you run short of oil. Oil? How does oil fit into the manufacturing of say blankets? Power looms need lubrication and fine whale oil was no longer available. Lard was tried, but it proved to be a poor substitution. Tools and machinery proved to be an even bigger problem for the South than food, clothing, or labor.

In order to build and run a modern manufacturing system the South needed financing. The seizure of US mints and property provided scant hard currency. The belief that the South would win developed a good deal foreign credit. This allowed for the national debt to swell to \$700 million backed by \$27 million in specie. However, after the loss of Vicksburg the jig was up and foreigners turned off the credit tap. This caused the run-away inflation which soared to 6,000%. It was a miracle that the Confederacy lasted much beyond the summer of 1863.

### Josiah Gorgas – Misc.

- Management.
  - Big picture guy.
  - George W. Rains.
  - John W. Mallet.
- Pistol factories.
- Copper shortage.



How the Confederacy did make it to April 1865 is largely due to our friend Josiah Gorgas. In my rambling style you have already learned about this phenomenal manager. What sets him apart from practically every other senior man in the Confederacy is his ability to see the big picture, recognize that he cannot do it all himself, and use subordinates and in some cases superiors to carry out his plans so that Gorgas reached his goals. Let me discuss two of his lieutenants to illustrate just how he did it.

As I have already said, when the war began the South had almost no capability to manufacture gunpowder. There were 4 small powder mills, two in Tennessee and two in South Carolina. Gorgas tapped George Washington Rains to create this vital resource. The first step, as I have already explained, was to greatly enlarge the operation in Nashville. Rains also secured the means to produce saltpeter. From the humble beginnings in Nashville, Rains established a number of powder mills throughout the South. The major facility in Augusta, GA was built from the ground up as a modern production site. The fact that Rains could conceive of, plan for, build, and have the facility operational by April 1862 was astonishing.

Gorgas found 1st Lieutenant John W. Mallet on the staff of General Robert Rodes. Mallet was a chemist and was just the man Gorgas needed to head the Ordnance Labs and oversee the production of ammunition. The first thing Mallet was asked to do was to survey the ammunition. This was not easy for this mild-mannered scholar. But Mallet was an outstanding scientist, leader, and manager. His report stress standardization of ordnance and the centralization of production. This document became the blueprint that Gorgas used to successfully manage the arms of the Confederacy. It also gave him the reasons for gaining partial control of the railroads, iron production, and a great number of other southern enterprises. Although centralization would be compromised out of necessity, Mallet's plans, as executed by Gorgas, was the main reason the South held out so long. The next two examples illustrate first how Gorgas could build industries out of thin air and second how he could be very flexible when the war took its toll on his industrial engine. Behind the production of a southern made pistol was yet again one of Gorgas' su-



perstars. This time it was James H. Burton. Burton had spent some time with the British firm that made the Enfield rifle. He was put in charge of building a new armory at Macon, GA. One of his pet projects was to produce a pistol at the startup firm of Spiller & Burr. Burton based his design for 15,000 pistols on the Whitney revolver, an updated design of Eli Whitney's original pistol. Many of the machines needed to make the firearms came from the captured equipment from Harper's Ferry. By December 1862 the plant in Atlanta shipped its first pistol. Although the troops had issues with this homegrown item, the fact that they could produce it at all was nothing short of a miracle. 1,451 of these pistols were produced and they are prized by collectors today. Later on, when Sherman threatened the Spiller & Burr plant in Atlanta, the entire production floor was moved to the Macon Arsenal.

The problems that Gorgas had with shortages as the war was going badly for the South gives you some insight into the man's flexible thinking. Sometime shortly after the battle of Chattanooga the Ducktown copper mines fell into the hands of the Yankees. This was a terrible loss as 90% of the needed copper came from there. Until the mines were lost, copper did not seem like a very critical item. However, all muzzle loading artillery pieces used a small copper tube filled with ignition powder and fulminate of mercury to set off the gun. No copper, no artillery!

Mallet tried to use a paper friction primer, but this was not very successful. Blockade running brought in a little copper, but nothing like the needed amount. To make up for this deficiency the Ordnance Bureau impressed turpentine and apple brandy stills in North Carolina. They got enough copper coils for the last two years of the war.



The war probably should have ended soon after the retreat from Gettysburg when it became clear that the North was not going to give up and let the Confederacy "be." After that Grant came east and Sherman marched south. And thus, the war continued into 1864. The one big hope was that Lincoln would fail to

be reelected that fall. Operating on interior lines with the logistical support created by Gorgas, the South fights on. Now it is a slow wasting away.

Until the fall of Atlanta, only bits and pieces of supply was removed from the system. The story of copper is a good example. But once Atlanta was no longer in southern hands large chunks of the production distribution capability were lost. Not only were the factories gone, but the hub and spoke plan of the rail lines was shattered along with the stores in rail cars and warehouses. To make Gorgas' problems worse, when Hood evacuates he goes, not southeast, but west! Georgia's governor Brown will not release arms to Hood.

Bills were not being paid so even if the Ordnance wanted to buy from private armories they could not. Not even the agriculturally focused South could feed the men under arms and the population in general. Some of this problem was not enough crops, but the bulk of the issue was the lack of transportation. It seemed like Gorgas was playing a game of "whack-a-mole." As soon as he got one area under control another one went critical. His plan of decentralization helped a little, but the war was clearly winding down.

The coup de grace was financial. Inflation finally overwhelmed the Confederacy. In some of the plants being run by Ordnance and manned by slaves, they could not even buy food with the worthless money and the lack of transportation. They tried to send stores and machinery to a safe location, but the one they picked, Savannah, turned out to be a horrible site. Sherman feasted on the carcass of Gorgas' logistical base. At the end Gorgas was in Danville trying to make provisions for the expected arrival of the government and the army with General Lee. Neither group made it so Gorgas heard about Appomattox while still in Danville.

The fact that the Confederate States of America lasted almost two years longer than it had any right to, was in the main due to the genius of Josiah Gorgas.