

The Answer Is Steam The Defense Plan of Edmund Pendleton Gaines

by Christyjoy Skaw

With book in hand, the young soldier sat on the edge of the platform. Jim knew he should have been reading it, as there would likely be a quizzing later. His instructors were less than kind if he failed to take his studies seriously. How could he focus on studies, though, with such a scene laid out before him? The floating artillery battery rocked gently to the motion of the waves. Its tugboats, those steam-powered ships that provided the tactical mobility, were quiet at the moment and the slightest of breezes teased the back of his neck. He viewed New Orleans along the horizon, and just seeing the outlines of its buildings made his heart beat a little faster. He had heard stories, but nothing compared with reality of the landscape before him. Trade from all over the world passed through the city, which he would help defend. The battery floated in the waters of the Southwest Pass, one of several channels that opened the Mississippi River to the ocean. Although they were beyond his vision, he knew batteries also guarded the other main channels. All were manned by crews poised at a moment's notice to move wherever needed, their guns ready to defend the city.¹

Running footsteps pulled Jim's attention up short, and guiltily he propped up his book from where it had fallen in his lap and put on his best studious expression. He was relieved when Will rounded the corner of the ship's exterior deck. His friend's uniform was slightly more disarrayed than usual, though with Will there was always some element of chaos. The young man, at age seventeen, was a year older than Jim and was in his second year of apprenticeship.² Collapsing exhaustedly next to his friend, Will brimmed with excitement he could barely contain.

"There was an attack!" he proclaimed. Alarmed, Jim closed his book with a snap. Adrenaline thrummed through him, jolting him to action, but only Will's apparent unconcern kept him in place.

"Where? When?"

"Fort Snelling!" Jim relaxed and scowled at his friend. Fort Snelling lay at the opposite end of the Mississippi, far to the north in the new state of Minnesota. Will paid no attention to the scowl, too caught up in the news that animated his expression.

"There were three Indian tribes that formed an alliance and attacked one of the new settlements. When the commander of the fort heard, he mustered three companies immediately and sent word for backup." Jim nodded his understanding. Fort Snelling was one of eleven forts located along the border of the young country that served as points of defense at the edge of a vast wilderness. Designed to be minimally held, each fortification could quickly spare up to

¹ Gaines, Edmund. "To the Young Men of the States of the American Union Civil and Military" (1838) 9.

² Edmund Pendleton Gaines, "A Plan for the Defence of the Western Frontier Furnished by Maj. General Gaines." *Army and Navy Chronicle* 6, no 19 (February 28, 1838): 294.

twelve of its fifteen companies to a needed location.³

“A good thing he called for backup, too,” Will continued. “The Indians laid an ambush and planned to attack the fort. Fortunately, the 15th made it in time and was able to reinforce.”

“My dad worked on that railway,” Jim said with pride. His dad always had a gleam of excitement in his eye as he reflected on his army days, when between battles with Indians he had helped complete the rail lines that would eventually connect the forts with the interior of the nation. These were the routes that allowed troops to move swiftly to any point along the frontier, reinforcing the defensive lines.⁴

“My grandfather was a surveyor,” Will recalled.⁵ Catching the edge of his friend’s grin, Jim joined with him as they chorused together, recalling one of their instructor’s favorite words of wisdom: “You cannot know the land until you have walked it with your own two feet.” Will crunched his forehead to evoke the sergeant’s overgrown eyebrows. Both men laughed.

The opening scenario, while fictional, reflects in part the plan of Maj. Gen. Edmund Pendleton Gaines, an early U.S. Army commander. Born in 1777, Gaines spent most of his life in military service on the American frontier. He had little faith in government bureaucracy and often got himself into trouble with superiors through the impassioned promotion of his own initiatives, one of which resulted in his plan for national defense. Gaines feared for the security of his fledgling country, sensing danger from powers both foreign and domestic. Like many in the present day, he saw possibilities for war-making in new innovations and sought to get ahead of the perceived threats, such as those from fleets of steam-powered ships that could travel across the ocean in merely two weeks. The U.S., he argued, had to be ready for any military contingency.

The defenses of Gaines's time lacked the potential, he believed, to combat such threats, so he proposed new systems that not only relied on the capabilities of the army but also on new technologies.⁶ He envisioned a line of forts stretched across the frontier, all connected by a series of railways. Larger military centers would be able to move troops where they needed to be quickly. The all-important seaports would be protected by mobile batteries, powered by steam and ready to move to any point to foil an attack.

Gaines's scenarios encompassed more than merely military strategy; he looked to economic impacts as well as social ones. The railways would provide economic growth for the country and the army would be a worthwhile means of training young men to fight under military discipline, fashioning them into capable candidates for the volunteer militias that provided support. The training, which he foresaw happening on his floating batteries, as well as forts, would teach them about the new technology. When not fighting, the army would provide the labor to create the railways and batteries, cutting down on their cost and helping soldiers understand how they worked.⁷ Elaborate and detailed, the plans revealed a flexible mind that marked his military career.

Gaines started his military career in the Tennessee militia, and in 1799 the U.S. Army

³ Ibid., 290.

⁴ Ibid., 295.

⁵ Ibid., 289-90.

⁶ Edmund Pendleton Gaines, *Memorial of Edmund Pendleton Gaines, to the Senate and House of Representatives of the United States, in Congress Assembled* (Memphis, TN: Enquirer Office, 1840): 31.

⁷ Gaines, “A Plan for the Defence of the Western Frontier, 290.

commissioned him an ensign.⁸ In his early career he tackled various tasks from surveying to constructing roads for guarding the border between the U.S. and Spanish Florida.⁹ There he served at Fort Stoddert, on the Mobile River, where he met and married his first wife, Francis Toulmin, the daughter of federal judge Harry Toulmin. In early 1807, Lieutenant Gaines played a small but pivotal role in the capture and trial of Aaron Burr, charged with conspiring to invade Spanish Mexico, a violation of the Neutrality Act of 1794. Pres. Thomas Jefferson viewed Burr as a traitor and issued a warrant for his arrest. Gaines received news of Burr's presence near Fort Stoddert and rode out to arrest him. Initially, Gaines treated Burr as an honored guest, but in time he feared Burr's supporters would attempt an escape, so he sent the captive north to Washington.¹⁰ Ultimately, Burr stood trial in Richmond, Virginia, with Gaines testifying against him.¹¹ Much to Jefferson's displeasure, the court acquitted Burr of all charges due to a lack of sufficient evidence.¹²

In 1811, Gaines had a brief brush with civilian life when, following his wife's prolonged illness, he resigned his commission to work as a judge for the parish of Pascagoula in the Mississippi Territory. His wife died in November of the same year.¹³ Shortly after, a new war with Britain pulled Gaines back into military life, and the army re-commissioned him on March 14, 1812.¹⁴ He ended up in the northern states by the Great Lakes in charge of the fort at Lake Erie, where he successfully repulsed the enemy in a battle that left 900 British soldiers and 84 American troops dead.¹⁵ In a freak occurrence after the battle, a British shell came through the roof while Gaines sat at his desk. The resulting explosion destroyed the desk and left Gaines badly injured, forcing him to give up command. He eventually transferred to New Orleans and served under Gen. Andrew Jackson until the end of the war.¹⁶

While in military service, Gaines met Barbara Grainger and married her a few months after the war ended. He stayed with the army as one of the southern district generals under Jackson. By that time fully committed to a military career, Gaines spent the next few decades on the frontier. In the South, he fought with Jackson during the first Seminole War, and when the district divisions changed in 1821, Gaines went to the west. His time spent on the borders of the country shaped many of his decisions, and in the absence of fast communication with his superiors, he often took extensive initiative to deal with problems quickly. His philosophy was that it was better to respond with overwhelming forces and not need it than to respond with too little and be caught short.¹⁷ This view often got him into trouble with his superiors back in Washington, but his frontier service also gave him invaluable firsthand knowledge of American defenses.

Gaines proposed the first version of his defense plan in 1833—though he proposed various pieces of it earlier—and had formulated the complete version five years later. An advocate of hard work

⁸ Thomas W. Cutrer, "GAINES, EDMUND PENDLETON," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/fga03>), accessed May 06, 2014. Uploaded on June 15, 2010. Published by the Texas State Historical Association.

⁹ Silver, James W. *Edmund Pendleton Gaines: Frontier General*. Louisiana State University Press, 1949: 7-8.

¹⁰ Silver, *Edmund Pendleton Gaines: Frontier General*, 15-16.

¹¹ *Ibid.*, 17.

¹² Hoffer, *The Treason Trials*, 171-72.

¹³ Silver, *Edmund Pendleton Gaines: Frontier General*, 28-29.

¹⁴ *Ibid.*, 30.

¹⁵ *Ibid.*, 48.

¹⁶ *Ibid.*, 49-50.

¹⁷ *Ibid.*, 90-91.

even in time of peace, he believed that as his subordinates traveled, they should be “exploring, surveying, and marking routes from post to post . . . ascertaining the exact topography of the whole Southern and Western frontier, and the adjacent country.”¹⁸ He saw knowledge of the terrain as crucial to effective preparation for war. As he wrote, “The only sure means of preventing war is to be prepared for it. . . .”¹⁹

Gaines foresaw both potential threats and opportunities in new steam-powered vessels, and his concern heightened with the Battle of Veracruz that took place late in 1838, when the French navy used them to maneuver their war frigates into position to bombard the Mexican fort.²⁰ Combined with new ordnance technology, the artillery barrage destroyed the Mexican defenses in only two hours.²¹ The lessons Gaines took from that encounter were that his mobile floating artillery barges would be able to confront enemy forces and prevent them from ever setting foot on American soil. Rather than placing the steam engines on barges, though, he proposed the use of tugboats, a move provided added maneuverability and reduced the explosive danger of putting engines and munitions in close proximity. Additionally, he had the barges fitted with iron scrapers so when not engaged in war they could be used to reconfigure river channels.²² Gaines realized floating batteries had not worked previously due to an inability to wield them properly, and he knew steam power changed that equation, making them more viable and effective.

For land defense, Gaines relied heavily on railroads. He proposed six lines originating in the central states of Tennessee and Kentucky that would fan out westward across the frontier. As the frontier line moved even further west, the central points would shift to Missouri and Illinois. From there, the lines could extend to the Pacific Ocean, linking the frontier forts with a speedy source for supply and reinforcements. He also advocated for good roads to connect the forts. The military roads were to be relatively straight with adequate stone bridges, as well as elevated centers and perimeter ditches to ensure proper drainage.²³ The forts, Gaines believed, should be large enough to “afford protection and comfortable accommodation to the greatest practicable number of troops or neighboring inhabitants,” and also capable of being defended by the “least practicable number of men.”²⁴ Gaines saw threats in the West not only from Native Americans but also European powers that still held territory in the continent. The U.S., in his mind, should not count on the apparent friendliness or presumed weakness of its neighbors, instead relying on its own strengths and resources, including a proper rail system.

Unfortunately for Gaines’s plan, his influence in the military began to wane in the 1840s. He split with Jackson regarding treatment of Native Americans and his highly public feud with fellow general Winfield Scott proved embarrassing for the government. Both generals responded at the beginning of the second Seminole War in 1835—Scott due to orders from the government and Gaines due to his own initiative. Neither man ended up accomplishing much; Scott blamed his personal failures in part on

¹⁸ Gaines, “A Plan for the Defence of the Western Frontier,” 289.

¹⁹ Gaines, “To the Young Men”, 86.

²⁰ Lawrence Sondhaus, *Navies in Modern World History*. (London: Reaktion, 2004) 70-71.

²¹ Gaines, “To the Young Men,” 1.

²² *Ibid.*, 8-9.

²³ Gaines, “A Plan for the Defence of the Western Frontier,” 293.

²⁴ *Ibid.*, 290.

Gaines, who he said diverted vital supplies to his own command.²⁵ Though Congress called the men to account, it ultimately acquitted them both of wrongdoing.²⁶ During the next year, the army reorganized the military districts again, dividing the country into nine, with Gaines in command of only one small district. As a result, his authority and his pay declined.²⁷

Gaines's various initiatives and his habit for speaking his mind worked for him and against him in his dealings with Congress. During the Texas Revolution, he commanded troops along the U.S.-Mexico border. His sympathies lay with Texas, as he believed the area properly belonged with the Louisiana Purchase, so while he avoided engaging the Mexicans in battle, he worked to keep local Indians out of the conflict, at one point crossing the border following a report of a possible uprising.²⁸ On several occasions, Gaines commandeered militia to respond to perceived threats, and at the beginning of the U.S.-Mexican War, he called for volunteers in Louisiana to support U.S. Gen. Zachary Taylor. The volunteers proved more of a hindrance to Taylor than help.²⁹ Congress countermanded Gaines's action and disallowed all the volunteers except those already in motion. When called before Congress to defend his actions, he did so vigorously and somewhat successfully.³⁰ Despite being found not guilty, he received a reassignment to an eastern command.³¹ He also faced setbacks in his personal life at that time. His second wife died in 1836, and he married for the third and final time to Myra Clark Whitney three years later. Myra Gaines traveled the country with her husband as he gave talks promoting his national defense plan, often opening the events by speaking about the horrors of war.³²

In the final analysis, the government's official reason for denying Gaines's plan was the cost, which, however, did not take into account his recommendation to use the army for labor.³³ Regardless, many of the sites for which he advocated ended up becoming forts as settlers pushed steadily westward.³⁴ Gaines's age may have also been a factor in the government's dismissal of his plans; by 1838, he was 61. Given that, his willingness to adapt to new technologies seems particularly noteworthy. Rail lines, for example, were limited in the 1830s, and most of the early ones were short in distance, privately funded, and not systematically connected. Despite such limitations, Gaines realized their potential for expanding economic trade and supplying the frontier.

Steamships truly became the wave of the future in oceanic transportation with the advent of iron hulls and screw-driven propulsion.³⁵ By the 1870s, newer engines made the larger ships more viable and also marked an end to the age of sailing ships. Though floating batteries were never a regular part of

²⁵ Adjutant General's Office, Department of War, Department of War. Proceedings of military court of inquiry in case of Major General Scott and Major General Gaines, pt. 1: Major General Scott - failure of Florida campaign in 1836. March 3, 1837, 187-88.

²⁶ Silver, *Edmund Pendleton Gaines: Frontier General*, 189.

²⁷ *Ibid.*, 161-62.

²⁸ Thomas W. Cutrer, "GAINES, EDMUND PENDLETON," *Handbook of Texas Online*

²⁹ Germany, "Patriotism and Protest," 332.

³⁰ *Ibid.*, 330-32.

³¹ Silver, *Edmund Pendleton Gaines: Frontier General*, 267.

³² Elizabeth Urban Alexander, *Southern Biography : Notorious Woman : The Celebrated Case of Myra Clark Gaines* (Baton Rouge, LA: Louisiana State University Press, 2004) 158

³³ Silver, *Edmund Pendleton Gaines: Frontier General*, 230.

³⁴ *Ibid.*, 222.

³⁵ Lincoln Paine, *The Sea and Civilization: A Maritime History of the World* (New York: Alfred A. Knopf, 2013) 509.

U.S. defenses, during the Civil War the Confederacy built one utilized during the siege at Fort Sumter.³⁶ Across the ocean, the French navy implemented such batteries and used them to great effect against the Russians in the Crimean War.³⁷

While Gaines was not the only military leader looking to take advantage of new technologies, his passion and commitment for his ideas are worthy of note. His plan was not merely for defense; it also potentially served as a framework for society and industrial development. Seemingly never discouraged by the countless setbacks he encountered, Gaines advocated for his wide-ranging defensive plan through multiple administrations until his death in 1849. While never fully accepted or implemented, it could have proven to be both pragmatic and feasible, given particularly the core emerging technologies of railways and steamships he proposed to use. In the end, however, the timing of his proposal and the military status of the country during the era of his service worked against its acceptance. There were other, more pressing matters before the government by the 1850s and 1860s, and when the nation emerged from the Civil War, Gaines and his plan were both distant memories of a bygone era.

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³⁶ Suhr, Robert Collins. "Popular During the Crimean War, the Floating Battery Was Revived by Hard-pressed Confederates." *America's Civil War* 9, no. 3 (July 1996): 22.

³⁷ Andrew Lambert, *Crimean War: British Grand Strategy against Russia, 1853–56* (Farnham, Surrey, GBR: Ashgate Publishing Group, 2011) 216-17.

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pressed Confederates." *America's Civil War* 9, no. 3 (July 1996): 22.