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The Role of Riverine Warfare in the Civil War

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The American Civil War saw the introduction of many new concepts to the art of warfare, some of which were widely recognized at the time. The importance of railroads to tactical flexibility and logistics, and the impact of ironclad naval vessels on future warfare have long been noted. An equally significant but somewhat unappreciated development, however, arose from the conflict on the Western rivers of the Confederacy—riverine operations. Born of necessity, circumstance, and the vision of a few men, cooperation between infantry and an odd assortment of improvised river forces gave Union commanders the decisive advantage needed to split the Confederacy and hasten the North's ultimate victory.

THE ROLE OF RIVERINE WARFARE IN THE CIVIL WAR

A research paper prepared
by
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With the possible exception of the American Revolution, the war between the States marked this country's history and psyche as has no other. Measured in terms of sacrifice that touched almost every home, of battles fought and lives lost, it was the greatest war in the history of the Nation prior to Pearl Harbor. The tattered flags from its fields of glory are treasured, North and South. Monuments to its heroes stand in all our older cities.[1] Yet the greater part of the immense body of literature dealing with this war is devoted to the land battles and armies of the North and South.[2] The names of famous Army battles and battlegrounds are familiar to every schoolchild; Bull Run, Gettysburg, Appomattox. But what of the Navy, where are its monuments and memorial battlegrounds? Yes, the battle of the ironclads, *Monitor* and *Merrimack*, and Farragut's ringing battle cry "Damn the torpedoes . . . " stand out together with a hazy recollection of a Northern naval blockade of Southern ports. But was that all? What of the new and unique form of naval warfare that had its inception in the opening years of this great struggle and then receded into history only to reemerge in recent years in the form of riverine warfare in the Mekong Delta. For some reason, the accounts of naval operations in the Civil War, and in particular river operations, have never gained popular appreciation.

To enable the reader to gain an understanding of the role played by forces afloat on the Western rivers, this paper will examine the role of seapower in the Civil War, the importance of joint Army and Navy operations, the strategic importance of the Mississippi River, the strategy of the opponents on the rivers,

the river gunboats, and the role of gunboats in some of the major battles.

Although the purpose of this paper is to examine river warfare in the West, it will be helpful to the reader to place the role of seapower in perspective prior to focusing on the Western river operations which were but one aspect of the Northern blockade. The following extract is from a speech given by Col. Hilary A. Hebert, C.S.A., a former Secretary of the Navy, at the Naval War College, 10 August 1886:

> Who shall estimate the value to the United States of its Navy which thus isolated the Confederacy, cut it off from communications with the outside world, and at the same time compelled it to guard every point against a raid like that which had destroyed the Capitol of the United States in 1814. Had the Confederacy instead of the United States been able to exercise dominion over the sea; had it been able to keep open its means of communications with the countries of the Old World, to send cotton abroad and to bring back the supplies of which it stood so much in need; had it been able to blockade Portland, Boston, Newport, New York, the mouth of the Delaware, and the entrance of Chesapeake Bay; had it possessed the seapower to prevent the United States from dispatching by water into Virginia its armies and their supplies, it is not too much to say that such a reversal of condition would have reversed the outcome of the Civil War.[3]

Narrowing the scope to river warfare, the Sprouts in their book *The Rise of American Naval Power 1776-1918* indicate the importance of seapower on the rivers:

> Union naval operations upon the Western rivers also contributed vitally to the defeat of the Confederacy. The occupation of the Mississippi and its main tributaries had a strategic significance second only to that of the seaboard blockade. These operations isolated the Trans-Mississippi Confederate States, extended the blockade along a third side of the military frontier, and seriously disrupted the internal communications of the Confederacy.
>
> These operations raised unique problems as difficult as those upon the seaboard. Suitable gunboats had to be improvised; operating principles had to be adapted to the peculiar conditions of river warfare. Much of this experience manifestly had little significance for future policy. But these operations nevertheless had a broad strategic significance in showing the vital importance of controlling water communications giving access to the enemy's country.[4]

The profound influence of seapower in the Civil War has been comprehended by few Americans. Had the North prosecuted the war less vigorously and successfully at sea and on the rivers or had the South done so more effectively, the history of America and the world could have been radically changed.[5] The North's strategy was simple and straightforward—deprive the South of its intercourse with Europe and cut the Confederacy in half through control of the Mississippi.[6] By splitting the Confederacy down the middle, the North could cut off the supply of food from Texas and the shipments of material which entered that State by way of Matamoros, Mexico. The question of the military control of Texas could be put aside as long as its communications were cut, for in any case the State would ultimately fall once the heart of the Confederacy succumbed. Thousands of troops for the Confederate armies were left stranded west of the Missis-

sippi where they could have no influence on the future of the war.

Joint Army and Navy Operations. The war in the West was largely a fight to control the rivers and river ports of the central valley of the Nation. The rivers themselves were vital to trade and transportation in the South, and of them the most important was the Mississippi. The blockade was the controlling condition of the Union success. That success was made possible by the undisputed naval and maritime superiority of the North. Cut off from the outer world and all exterior sources of supply, reduced to a state of weakness by the blockade, the Confederacy was pounded to death. Victory on the ground was achieved primarily by the Army; many of the strategic advantages which the Union Army held, however, were established by the Navy.[7]

The effect of seapower integrated with landpower is clearly demonstrated in this conflict where the fighting was done primarily on land, but the Navy's vital assistance to the Army was essential to the North's winning many of the great battles. Significantly, the Union won most of the battles fought where the two services could cooperate, i.e., everywhere on the Western rivers and Roanoke Island in the East, while those battles fought without naval assistance, i.e., the battles of Bull Run and Fredericksburg resulted in Union defeats, or stalemates such as those at Antietam and Gettysburg.[8]

The Navy's ability to guarantee the safe transportation of troops anywhere on the Southern coast or rivers weakened the Confederate armies in the field by requiring their commanders to disperse their forces over broad areas—many of which were never really attacked. While the Union armies gained incalculable benefits from the free and swift movements of troops, logistics, and heavy artillery, the Confederates were constantly being outflanked.

Strategic Importance of the Mississippi River Valley. The magnitude of the Mississippi River project can be appreciated in terms of the geography involved; from Cairo, Ill., to the mouth of the river, 480 miles due south, the river actually snakes along 1,097 miles. Its banks, for the most part low, are occasionally crowned with high bluffs on the east, geography well suited for batteries that might deliver a destructive plunging fire upon boats that attempted to steam past. The bluffs beginning with Columbus, 21 miles downstream from Cairo, appear again at New Madrid, Memphis, Vicksburg, and Baton Rouge.

From the outbreak of the war, both the Union and Confederate high commands realized the importance of controlling this inland highway. The North recognized that the free use of this vast river was absolutely indispensable for commerce in peacetime and deemed it equally important to military operations in time of war. One of the major objectives of the Navy Department was cooperation with the Army in the occupation of the river and its tributaries. This objective particularly appealed to the people of the North Central States, who realized that with the Union divided, the waterways might become useless. They also perceived that the side which held the Mississippi could easily carry war into the territory of the other.

The Mississippi has been called the backbone of the rebellion, for from the beginning of the war the Confederate leaders realized its importance in extending their territory westward. The more ambitious looked to an ultimate formation of one great slave empire to include Mexico and the West Indies. Possession of the Mississippi and the Ohio Rivers from Smithland at the mouth of the Cumberland River to New Orleans gave them control of the Red, Arkansas, White, Tennessee, and Cumberland Rivers. The conquest of this enormous basin was hoped by the Con-

federates to be but a matter of time. It would be difficult to exaggerate the important part that the Mississippi River would play in any such struggle. In New Orleans, the center of one of the mightiest river systems in the world, the Confederacy possessed a considerable plant for building ironclads, casting great guns, and making small arms. From Texas large supplies of beef were driven across the Mississippi to the Confederate Army long after the seaboard States had been exhausted. At New Orleans enormous quantities of cotton were collected and placed on swift vessels to elude the vigilance of the blockaders, which, upon return, supplied the Confederates with arms and munitions. No one was more aware of the importance of the river than the Confederate leaders themselves. From the beginning their most skillful engineers were engaged in fortifying its banks from Columbus, Ky., to Fort Jackson and Fort Philip below New Orleans. A large portion of the money and the strength of the South was massed on the river. It was asserted that no craft afloat could pass these fortifications. Every strategic point was armed with batteries, and the most difficult bends in the river were obstructed until a formidable line of fortifications guarded the river for a thousand miles. Beginning in the north, the Confederates erected batteries at Columbus, Island Number 10, Fort Pillow, Vicksburg, Grand Gulf, Port Hudson, Baton Rouge, and Forts Jackson and Philip, so that should they lose either end of this line, their troops need only fall back on the next post, gradually concentrating their forces with each defeat.[9]

Strategy on the Western Rivers. The Confederate concept of holding the rivers was primarily military, from the banks, while almost from the beginning the Union strategy was naval, or at least amphibious.[10] Defensive thinking is in the background of the most obvious and fatal of Confederate errors, divided command. Different Confederate leadership had different ideas about how the river should be defended, and since from the distance of Richmond it appeared that these ideas complemented each other, all were adopted. In reality, instead of complementing, they competed; for example, General Polk thought he needed soldiers more than the naval yards needed carpenters and mechanics and would not release the men from the Army; the riverboats were divided between Memphis and New Orleans, and at both places they had to fight without help from the Army.[11] The Confederates were locked in the strategic concept of Jefferson Davis, that of holding the river by means of forts, with the naval forces acting as auxiliaries. Union commanders, however, viewed their naval forces as capable of making valuable contributions to offensive operations on both land and water. Northern victory had as its foundation the concept of combined operations, the joining of the unique assets provided by naval forces with those on land. The effect of seapower integrated with landpower is clearly demonstrated in the river campaigns where General Grant achieved the essence of unified command and purpose with his naval commanders. The thing that gave this war on the Western rivers its peculiar character is that control of the sea could not be won in battle and then held. The Navy could win battles and capture territory along the rivers, but it did not possess the means to sustain these victories without the assistance of the Army.

The River Gunboats. Initially the War Department thought that the South's fortifications along the Mississippi would be attacked principally by land forces and that only a few transport vessels would be required to support the Army. Since an enemy attack from within had never been anticipated,

no naval station, dockyard, or arsenal had been established on the Mississippi or its tributaries. Indeed, except for a few small craft below New Orleans in the War of 1812, there had never been a warship on the rivers.

The first step taken by the Government for repossession of the Mississippi was to summon a retired St. Louis millionaire, James B. Eads, to Washington to seek his advice on the best methods for utilizing the Western rivers for attack and defense. Eads was a self-taught engineer, inventor, and industrialist who had pioneered the field of underwater salvage. He had an intimate knowledge of the Mississippi River system gained along with his fortune while raising sunken wrecks from the rivers, using what he called his submarines, but which were commonly referred to as snagboats. Eads had retired at the age of 37 to regain his health, to read, and think. He was inspired by writings of Louis Napoleon's use of floating iron-plated batteries in the Crimean War to bombard Russian forts. This inspiration served as the basis for his plan to blockade the Mississippi River.[12]

In Washington, Eads presented his plan to Lincoln and his Cabinet. The plan, which received immediate acceptance by the Cabinet with the exception of the Secretary of War, included provisions for establishing a base of operations at Cairo, where the Ohio and the Mississippi Rivers merge and where the Central Railroad of Illinois served as a supply line; erecting forts on either side of the river at Cairo to control river traffic; and the conversion of one of his snagboats to an ironclad to prevent the enemy from building batteries along the rivers. The Secretary of the Navy had Eads present his plan to a board of officers the next day. They approved the plan and passed the sketches of the ironclad to Samuel M. Pook, a naval architect. The Secretary of War objected to these proceedings and raised the point that the Navy had no jurisdiction on the rivers. He won his point with the Cabinet, and the sketches were retrieved from Pook. However, before long, political pressures forced the Secretary of War to request that a naval officer be ordered to consult with Eads and General McClellan on the best means of establishing a naval armament on the rivers to blockade commercial traffic with the Confederate States.[13]

On 16 May 1861, Comdr. John Rogers was ordered, under the direction of the War Department, to proceed to the Mississippi to develop a naval force. He immediately rejected Ead's snagboat project. After discussions with McClellan, who thought that it would be well to purchase vessels that could be used on both the Mississippi and the smaller rivers, Rogers purchased three side-wheeled steamers—the *Conestoga*, *Lexington*, and *Tyler*. Under plans drawn up by Pook, Rogers had the boilers and steampipes lowered into the holds where they would be protected by coal bunkers and added 5-inch wooden bulwarks for protection of the crew. There was no provision for iron protective plating on these first river gunboats. Rogers requested Navy men for crews and 32-pound guns for armament from the Navy Department. The Secretary of the Navy refused his request, curtly advising him to process his requisitions through the War Department, since it had cognizance over the rivers and, further, that Rogers had no authority to buy or alter ships except by Army orders. The *Conestoga* was armed with four smoothbore 32 pounders; the *Lexington* with four 8-inch smoothbore guns, one 32 pounder, and two rifled 30 pounders; the *Tyler* with six 8-inch shell guns and three 30 pounders. Rogers managed to get some young naval lieutenants to command the boats and some rivermen to serve as crews, but his shortage of personnel was a major deficiency. He was promised 1,000 Atlantic fishermen to correct this problem;

On 12 August 1861 the improvised gunboats arrived at Cairo which, because of its strategic location, was to become the naval arsenal and supply depot for the Union River Flotilla.

History books are at variance on the actions of Rogers. Some indicate that he was a veteran naval officer who worked so quietly and efficiently that he undermined himself by failing to keep the Navy Department informed of his activities; that when he finally got around to sending a report to the Navy it was too late, for the report arrived the day after his relief had been appointed. It would appear that he was a busy man during this time, for he prepared statistical tables of the water levels of the Western rivers, contracted for gun carriages, anchors, chain, clothing, bedding, powder, shot, and rowboats; all this in addition to converting the three steamers to gunboats.[14] Other books indicate that he was a man who got things done but who was not too particular about details. They suggest that he rubbed the Army the wrong way by claiming jurisdiction over all shipping on the Western waters and that he quarreled with everybody about the war not being run according to regulations.[15] In spite of the different accounts, it is clear that Commander Rogers laid the foundation for an effective naval organization that made major contributions to the ultimate victory of the North.

James Eads thought Rogers' converted gunboats were monstrosities and did not give up his plan for ironclads on the Mississippi. Pook had returned to Washington from his trip to the West filled with enthusiasm for Ead's idea and was commissioned to design an ironclad gunboat. His design was not perfect, but it was perhaps fortuitous that it was submitted through the War Department since the Chief of Naval Construction thought the whole project impracticable. Gen. Joseph Totten of Army Ordnance, who knew nothing about ships except to shoot at them, advertised for bids to build seven of these vessels. Eads was the low bidders at $89,600 per copy. The contract contained a provision that the vessels would be completed within 65 days from the date the contract was signed—7 August 1861.[16] However, Government-caused delays, together with a possible misjudgment on the part of Eads of the time necessary to construct the boats, resulted in the boats not being completed at the end of the 65 contract days. The Government refused to pay, but Eads went ahead and finished the project at his own expense and delivered all the boats to the Government within 100 contract days. He then waited until the boats had won their famous victories downriver before collecting his pay.[17]

Because of their appearance, these gunboats were nicknamed *Pook Turtles.* They resembled one another so closely that stripes had to be painted on their stacks for identification. They were flat-bottomed scows which drew 6 to 7 feet of water. They measured 175 feet in length by 52½ feet in width. They were of approximately 600 ton displacement, capable of steaming at speeds to 9 miles per hour, and were fitted with steam engines that drove a single paddle wheel located 60 feet forward of the stern. An oak casement with sides that sloped at an angle of 35 degrees inward from the waterline formed a box that resembled a roof of a house and enclosed the engines, paddle wheel, and guns. These sloping sides, designed to cause shot to skip off their surfaces, proved to be a detriment in battles with batteries occupying the river bluffs, for the plunging fire struck the sloping sides at nearly a 90-degree angle which often resulted in the casement being penetrated by shot.

Since these boats were expected to fight bow-on, only the front part of the casement and the sides around the boilers and engines were protected by

iron plating 2½ inches thick. The forward casement had 24 inches of oak backing behind the iron plating. This arrangement left the stern and sides fore and aft of the engine space vulnerable. The pilothouse was built with heavy oak and plated on the forward side with 2½ inches of iron and the aft side with 1½ inches of iron.

The Turtles mounted 13 guns; generally there were three 8-inch shell guns, six 32 pounders, and four rifled 42 pounders. The old-fashioned 42 pounders were always considered dangerous since they had been weakened by rifling without benefit of reinforcing steel bands. These strong floating fortresses, well adapted to the service demanded of them, were a distinct innovation in naval warfare.[18]

Before completing these boats, Eads converted his snagboat *Benton* into an ironclad. The *Benton* was the largest, strongest, and slowest of the ironclads—capable of speeds to only 5 miles per hour. The *Benton* displaced approximately 1,000 tons, drew 9 feet of water, and was 200 feet in length by 72 feet wide. She was constructed of two hulls 20 feet apart which were joined by heavy timbers and planked over to provide a false bottom. She was powered by a single engine which drove a paddle wheel located 50 feet forward of the stern. The *Benton* was protected by a casement similar to the Turtles but one that was much stronger. She was armed with two 9-inch shell guns, four 42 pounders, two rifled 50 pounders, and eight smoothbore 32 pounders.[19]

Eads also converted a river ferry, the *Essex*, into an ironclad. The *Essex* was armed with one 10-inch, three 9-inch, one 32 pounder, and two rifled 50 pound guns. These nine ironclads, together with the three converted wooden gunboats and 38 mortarboats, constituted the chief strength on the river throughout the war. The mortarboats were simple floats constructed to withstand recoil. A bulwark about 5 feet high formed an enclosure for the mortar. These guns weighed 17,000 pounds and threw a 13-inch shell weighing 285 pounds. The mortarboats were towed or pushed along the river to a tactical position and moored to the bank. A derrick was then set up to lift the shells to the mouth of the gun for loading.[20]

Manning the ironclads proved to be difficult. Their crews, as finally brought together, consisted of landsmen, steamboat hands, soldiers, and seamen. Five hundred sailors arrived in November and 1,100 soldiers arrived in December 1861. This mixed character of personnel caused many problems, for Major General Halleck insisted that Army officers should accompany the troops and that they owed no obedience to naval officers except to the commander of a gunboat.[21] On 12 September 1861, Capt. Andrew H. Foote arrived in Cairo to relieve Commander Rogers and take command of the Western Flotilla. He soon complained that every "brigadier could interfere with him." Even when he was appointed to flag rank in November 1861, which gave him an equivalent rank of major general, the naval officers under him were constantly liable to harassment by conflicting orders from any superior Army officer under whom they might be serving.[22] In view of this bizarre command relationship, it is a wonder that the river operations were as successful as they were, for it was not until October 1862 that the flotilla was transferred to the Navy Department.

Capt. Andrew H. Foote, a true sailor, would have preferred a command on the sea. The fact that he was under the direction of the War Department, receiving orders from generals who little comprehended what a gunboat could and could not do, was not the least of his difficulties. He had seen a great deal of duty in the Far East where he had fought the barbarous Malays. He had also been a classmate of Gideon Welles, the Secretary of the Navy, in his school-

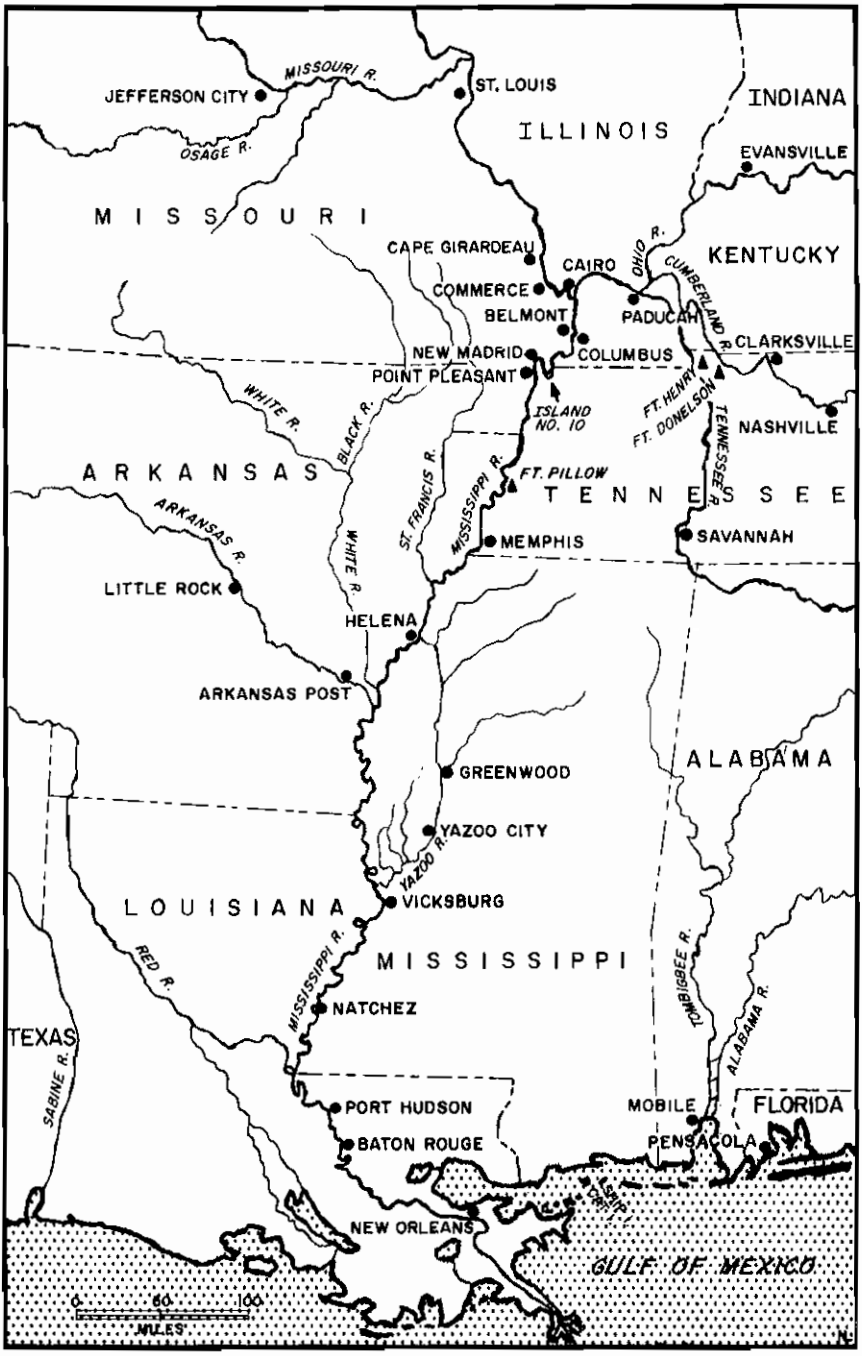
days. Welles selected Foote to command the Western Flotilla because he thought his capacity in dealing with savages might make him useful in handling the Army.[23] In fitting out his flotilla, Foote was frequently embarrassed by lack of materials and funds, but he carried forward his work with patience and determination. He was later to gain high praise for the work of this flotilla, but he is said to have looked upon the fighting as secondary and the creation of this fleet as being his great life's achievement.[24]

Another variant in the chain of command on the Western rivers was the Union Ram Fleet under the command of Col. Charles Ellet, Jr.[25] Ellet was a civil engineer with impressive flood control and bridgebuilding credentials, including the first suspension bridge in the United States. While visiting Russia during the Crimean War he had urged Russia to employ ram boats for the relief of Sevastopol. On returning home he offered his ideas to successive Secretaries of the Navy without receiving any commitment. However, immediately after the *Merrimack* sank the *Cumberland* on Chesapeake Bay, demonstrating the power of the ram, Ellet was authorized by the Secretary of War to prepare a ram fleet to gain control of the Mississippi.[26] Ellet set to work immediately and bought four side-wheeled and three stern-wheeled steamers. He strengthened their hulls so that they could withstand a severe bow-on collision by installing fore and aft bulwarks of solid wood 12 to 16 inches thick and iron rods which ran athwartship. An oak bulwark 2 feet thick was added to protect the boilers. Ellet's plans had the mark of an amateur, spirited but without benefit of training. He desired no commission and wished to have no officers or seamen on his boats, only volunteers. He finally accepted a commission as a colonel and acceded to having armed soldiers and officers assigned to each ram.[27] Ellet's rams were commanded by his son, brothers, and friends who cooperated with but were not under the direction of the Mississippi Flotilla Commander.[28] The ram fleet, hastily put together in 6 weeks, arrived just before the Battle of Memphis in which it served with distinction. Colonel Ellet received wounds in that battle which subsequently proved fatal.[29] Capt. A.T. Mahan, in *The Gulf and Inland Waters*, said of Ellet's ram fleet at the Battle of Memphis:

> There can be no denying the dash and spirit with which this attack was made. It was, however, the only service of value performed by this irregular and undisciplined force. . . . There were admirable materials in it, but the mistake of withdrawing them from strict military control and organization was fatal.[30]

Two additional types of vessels that served on the rivers are deserving of comment; the first was what was officially known as *light draughts* which comprised the so called *Mosquito Fleet* and which were commonly referred to as *tinclads*. These small boats, armed with six to eight guns and capable of transporting 200 troops, rendered minor but important service in the river operations. With their shallow draft—18 inches empty, 36 inches loaded—they were able to operate in tributaries where the larger boats could not. Most of these boats were ordinary river steamers purchased and altered to suit the purpose of the Navy. They were covered to a height of 11 feet above the waterline with railroad iron a half to three-quarters of an inch thick, and with their boilers further protected they were able to stand up to fire of field artillery pieces. The tinclads engaged enemy infantry ashore, captured field batteries, and often took Confederate vessels twice their size.[31]

The second type of vessel was the hospital ship. Fever and dysentery


JEFFERSON CITY
MISSOURI R.
ST. LOUIS
INDIANA
ILLINOIS
OSAGE R.
EVANSVILLE
MISSOURI
CAPE GIRARDEAU
CAIRO
OHIO R.
CUMBERLAND R.
KENTUCKY
COMMERCE
BELMONT
PADUCAH
NEW MADRID
COLUMBUS
CLARKSVILLE
POINT PLEASANT
WHITE R.
BLACK R.
ISLAND NO. 10
FT. HENRY
FT. DONELSON
TENNESSEE R.
NASHVILLE
ARKANSAS
ST. FRANCIS R.
MISSISSIPPI R.
FT. PILLOW
TENNESSEE
ARKANSAS R.
MEMPHIS
SAVANNAH
LITTLE ROCK
WHITE R.
HELENA
ARKANSAS POST
GREENWOOD
ALABAMA
YAZOO CITY
YAZOO R.
LOUISIANA
VICKSBURG
MISSISSIPPI
RED R.
TOMBIGBEE R.
NATCHEZ
TEXAS
ALABAMA R.
SABINE R.
PORT HUDSON
MOBILE
FLORIDA
BATON ROUGE
PENSACOLA
DELTA
NEW ORLEANS
GULF OF MEXICO
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affected the unacclimated Northerners both afloat and ashore during the drive downriver. This disease threatened to kill off more Union soldiers than could be possibly killed by the Confederates in the struggle for possession of the river. When Island No. 10 was evacuated by the Confederates, they abandoned and sank a gunboat and six transports. These transports were soon raised and placed in commission by the Union. One of them, the *Red River*, was converted into the hospital ship of the Western Flotilla. Such floating hospitals quickly came into use by both the Army and Navy along the Mississippi.[32]

Early Battles. The gunboats were first stationed at Cairo, where a Union Army, under the command of a little known brigadier general by the name of Grant, was preparing to launch a campaign to wrest control of Kentucky, which had not seceded, from the Confederates and to control the Mississippi. At first the gunboats were assigned only to patrol and reconnaissance duty. On 8 September 1861, the opening shots of the river campaign were exchanged at Columbus, Ky., some 20 miles below Cairo.[33] Grant requested that Foote send gunboats to reconnoiter the bluffs at Columbus. General Polk had fortified the bluffs and established a floating battery to secure the river for the Confederacy. As soon as the gunboat *Tyler* appeared off Columbus, the Confederate batteries opened fire, revealing their strength and positions. The *Tyler* is reported to have returned the fire, scoring hits on the Confederate batteries. Two items regarding this expedition are worthy of note; the first was that new light was shed on the heretofore widely accepted doctrine which held ships were helpless against land forts; and secondly, on the return trip to Cairo anyone who exposed himself was fired upon from the banks by Confederate riflemen. Sniper activity was to continue throughout the war, taking a particularly heavy toll of riverboat pilots who became prime targets.

Two days later a second engagement took place at Lucas Point, Mo., a bend in the river 8 miles below Cairo. This action reinforced the idea of the superiority of gunboats over land forces. The *Lexington* and *Conestoga* were ordered to cover a Union force moving downriver to secure the Point where 3,000 Confederates, including cavalry and artillery, were located. The gunboats ran downstream in advance of the troops and silenced the Confederate batteries. During the fight a Confederate gunboat named *Yankee* came upriver to engage the Union boats. The Confederate gunboat was soon in retreat downriver; while withdrawing the *Yankee* took an 8-inch shell from the *Lexington* in her starboard paddle wheel totally disabling her so that she had to drift downstream to a protected anchorage. Two items of significance also arose from this engagement; it became clear that the Union Army would have to make a drive downriver to separate the Confederacy and control the Mississippi, for gunboats alone could not accomplish the task; and secondly, gunboats must carry artillery fore and aft to compete with Confederate batteries ashore—therefore, it had been assumed that the boats would only be required to fight bow-on against fortifications on bends in the rivers.[34]

Belmont. On 7 November 1861, the first real battle of the river war took place at Belmont, Mo., across the river from Columbus and a little upstream. Grant desired to contain Polk's forces at Columbus and thereby prevent their crossing the river to reinforce Confederate forces in Southwestern Missouri who were being pressed by General Fremont and his Union Army. Grant did not have sufficient forces for a direct attack on Columbus, but he thought that an attack on Belmont would thwart any ideas Polk may have had regarding

sending reinforcements to Missouri.[35]

Grant received a tipoff at 2 a.m. on 7 November that the Confederates were moving troops across the river from Columbus. He hastily planned an expedition to land 3,500 men on the Missouri shore out of reach of the guns at Columbus and attack Belmont. He requested naval support, and the *Lexington* and *Tyler* were ordered to serve as convoy to the troop transports. By 8:30 a.m. the troops were landed below Lucas Point and proceeding toward Belmont and the Confederate force of 2,500 men. The gunboats then proceeded downriver to bombard the batteries at Columbus.

Grant's forces drove the Confederates back and began looting their camp. While they were thus occupied, a force of 7,000 Confederates crossed the river downstream and advanced on the Union force in an attempt to cut it off from the river and the transports which had come downstream. The naval commander, noticing that the firing had ceased at Belmont, returned upstream with the gunboats to arrive in time to see the Confederate forces advancing in lines perpendicular to the river and immediately commenced firing. It was reported, "The huge shells would plough through whole platoons of men mowing them down like saplings before a cyclone."[36] The light artillery of the Confederates had no effect on the gunboats. The gunboats held off the Confederates long enough for the Union forces to embark in the transports. Thus Grant and his forces escaped, but it was a rout for they left enough supplies behind to outfit an army. The gunboats had saved the day and demonstrated the effectiveness of naval forces working with land forces and particularly the importance of the mobility of these large gun platforms. This battle also served to create a schism between the Army and the Navy, for Grant in his haste to prepare the expedition had forgotten to promise to Foote that he would notify him of any plan to use the gunboats. The first that Foote learned of the battle was in a report from the commanding officer of the *Tyler*, who related how the gunboats had saved the Union Army. Grant apologized to Foote for his oversight; but as a result of this incident Foote requested that the Secretary of the Navy raise the commander of the flotilla to flag rank, thus elevating him above Army officers of the rank of brigadier.

Fort Henry. The South's first line of defense stretched eastward from Columbus on the Mississippi across Kentucky through Fort Henry on the Tennessee River, Fort Donelson on the Cumberland River, and on to the Cumberland Mountains. The Union leaders were determined to breach this line and regain control of the Mississippi, but deemed it inadvisable to advance against a heavily fortified Columbus. Instead they chose to move against the center of the line attacking Forts Henry and Donelson, thus isolating Columbus to the west.

When the ironclad gunboats became available in January 1862, both Grant and Foote wanted to use them in an attack on the two forts. Grant preferred to move against Fort Donelson but yielded to Foote's preference for Fort Henry. Grant presented the plan for a simultaneous attack by a joint Army and Navy force to General Halleck, Commanding Officer of the Department of the West, who rejected it outright. Halleck finally consented to the operation after pressuring from Grant, Foote, possibly Lincoln, and the threat of Confederate reinforcements moving into the area.[37]

Grant left Cairo on 2 February 1862 with an army of 17,000 men on transports and moved up the Tennessee River to attack Fort Henry. Foote accompanied this force with seven gunboats, four of them ironclads. Grant's plan was to land his army 4 miles below the fort and move to interdict the road between

Fort Henry and Fort Donelson prior to moving against Fort Henry, thus preventing reinforcements or retreat along the road to Fort Donelson 12 miles away. Meanwhile, Foote would move up the river and bombard the fort from the gunboats.

Fort Henry covered an area of about 3 acres, was garrisoned by an army of 3,000 troops, and mounted 17 heavy guns. The fort was an incompleted earthwork which could be made untenable if taken under fire from many points along the river. The fort's commanding officer, General Tilghman, after receiving scouting reports of the strength of the advancing Union force, decided to evacuate the fort and sent his troops to Fort Donelson, retaining less than 100 men to man the guns. He realized that defeat was but a matter of time with troops advancing on his rear and ironclads on the river.

The Union plan of attack was thwarted when Grant's forces became bogged down by floodwater, thus preventing them from reaching the Fort Donelson road. Foote, unaware of this fact, opened the attack on 6 February and after little more than an hour, in which the Confederates resisted with determination, Tilghman struck his colors and surrendered to Foote. When Grant arrived, Tilghman was having a drink with Foote on the flagship *Cincinnati.* Foote then turned the fort over to Grant and returned to Cairo for repair of the ironclads. Grant was severely criticized by the press for his failure to take part in this battle.[38]

In this action the *St. Louis, Cincinnati, Carondelet,* and *Essex* were repeatedly hit; the *Essex* took a shot in the boiler which exploded and scalded 27 men and the commanding officer. However, aside from the scalded men, the flotilla suffered only two men dead and nine wounded. The Confederate losses were five killed, 11 wounded, five missing, and 78 prisoners.

After the fort had surrendered, the wooden gunboats *Conestoga, Tyler,* and *Lexington,* which had remained far behind the ironclads and thus escaped unscathed, proceeded upriver as far south as Muscle Shoals, Ala., destroying and capturing Confederate supplies and steamers.

Fort Donelson. After the fall of Fort Henry, Grant moved against Fort Donelson and its 18,000 defenders on 12 February with 27,000 Union troops. Fort Donelson, a fortified enclosure of a hundred acres, was located on a plateau on the Cumberland River. Foote arrived on the evening of 13 February with six gunboats, including four ironclads. On the afternoon of 14 February, Foote, apparently overconfident from his success at Fort Henry, steamed to within 400 yards of the fort and opened fire while closing. Within a short space of time the flagship *St. Louis,* had been hit 59 times; however, only one shot penetrated the casement, killing the pilot and wounding Foote. Foote's wound, which never properly healed, was the eventual cause of his death a little over a year later. The *St. Louis* drifted out of action downstream together with the *Louisville* which had her wheel ropes shot away and the *Carondelet* which took a hit from a 128-pound shot that took off her stack. The total loss to the flotilla was 11 dead and 43 wounded. Had Foote not pressed the fort so closely, he could have stayed out of range of its guns and effectively bombarded it with his longer range guns. The defeat of the gunboats caused the Confederates to make an attack the next day on Grant's right wing, which weakened and was giving way. Grant requested naval cooperation and a show of force while he urged his army back into the field. Foote obliged with the *Louisville* and *St. Louis* by bombarding the fort until dark. Grant's force then repulsed and shattered the Confederate attack and gained a lodgment in the Confederate line. Gen. Lew Wallace,

commenting later, said that there was no question that the gunboats distracted the enemy's attention and that he believed that the awful ironclads prevented a general movement up or across the river that night.[39]

The fall of Fort Donelson was assessed by some military leaders as the beginning of the end for the Confederacy. With the fall of this fort the Confederates evacuated their stronghold on the Mississippi, Columbus, leaving great quantities of stores behind. The Confederate line withdrew 45 miles to the south and anchored on Island Number 10 in the Mississippi and Corinth, Miss., on the Tennessee River. Grant made his name in this battle, and the army redeemed its good name after the humiliation at Fort Henry.

Shiloh and Pittsburg Landing. Another example of the Navy's service to Grant was at Pittsburg Landing in the Battle of Shiloh where the Navy provided another lesson in the value of combined operations.

By 5 April 1862, the Confederates had massed at Corinth, Miss., and the Union Army under Grant at Pittsburg Landing 15 miles to the north. Both armies were drawn up with one wing near the river and their lines extending about 5 miles from its banks. The Confederates launched a surprise attack on the center of the Union line at dawn on 6 April. Their intention was to break through the line and then wheel on the rear of the Union wings. By 10 a.m. the Confederates had breached the center, had taken possession of the Union camp, and were moving to trap the Union wing which guarded the stores at Pittsburg Landing. The Union troops were hard pressed and in a state of confusion with retreat cut off by the river.

During the battle the gunboats *Lexington* and *Tyler* ranged up and down the river seeking an opportunity to engage the Confederates. At about 1:30 p.m. the commanding officer of the *Tyler* sent a message to General Hurlburt ashore requesting permission to open fire on the enemy. The general directed him to do so, stating that he was grateful for the offer of help, and that he could not hold the position he then occupied for an hour longer without assistance.[40] Accounts of this incident vary. Nash, in *A Naval History of the Civil War*, interprets this event somewhat differently; referring to the commanding officer of the *Tyler* he says, "He was so typical a naval officer of that day that he did not dare to act on his initiative even though he could clearly see what needed to be done." Pratt in, *Civil War on Western Waters*, says "Tyler . . . opened an enfilading fire and in about 35 minutes had disorganized two Confederate brigades and put their artillery out of business. At this point he realized that he was entering action without authorization; he stopped and sent his gunner to Grant to ask instruction." In any event it appears that the *Tyler* did assist in silencing at least one Confederate battery before dropping down on the Landing and being joined by the *Lexington*. As the Confederates massed for a final charge about 5:30 p.m., the two gunboats took position opposite a ravine through which the Confederates would have to charge. As the waves of Confederates started across the ravine, the gunboats opened fire and together with an Army battery of 32 pounders swept the ravine from end to end with shot, grape, and canister. The Confederates, not expecting the fire of the gunboats and eager for victory, rushed on to their destruction. Finally, unable to withstand this withering fire, they withdrew. The gunboats continued to fire on the Confederate camps throughout the night at 10-minute intervals thus preventing the enemy troops from resting. During the night the Union force was reinforced, and the following day the Confederates were forced to retreat.

The gunboats had not a single man injured. The *Tyler* alone fired 188 shells at pointblank range during the battle.

In his report of the battle, Grant commented "In this repulse much is due to the presence of the gunboats." This was the second time within 5 months that these same two boats had saved Grant from defeat.[41]

Island Number 10. After the fall of Fort Henry and Fort Donelson, the Confederates transferred their forces and 130 large guns to Island No. 10 in the Mississippi. Islands were numbered from the mouth of the Ohio River downstream. Island No. 10 was located 40 miles below Columbus at the upper bend of a great double bend in the river. The island had been strongly fortified by General Beauregard who was called away to Corinth and Shiloh. It is significant to note that the Battles of Shiloh and Island No. 10 took place simultaneously. Beauregard left the defense of the island and command of its 7,000 defenders to General Mackall. The Confederates believed that the powerful fortifications on this island would finally stop the advance of Union vessels on the river.

A few miles south was the town of New Madrid, Mo. On 13 March 1862, General Pope with a force of 20,000 Union troops marched down the west bank of the river and bombarded the town with siege guns. That night he discovered that the Confederates had abandoned the town and had not even taken the time to destroy their stores of supplies. This victory isolated Island No. 10, inasmuch as Foote and a force of six gunboats and 11 mortarboats commanded the river above the island while Pope commanded the west bank of the river down stream. Foote, however, refused to bring his fleet downriver until battle damage suffered earlier had been repaired and the flotilla was ready to travel. Foote's refusal to move angered Pope, who wanted the fleet to accompany his forces downriver. The Army needed the boats to ferry troops across the river, but Foote refused on the grounds that the strongly fortified island prevented the movement of any vessel downstream.

Pope and his engineers then devised a plan to circumvent the Confederate guns by cutting a channel through the peninsula formed by the bend in the river. The channel, 6 miles long, 50 feet wide, and 4½ feet deep, was completed in 19 days. The shallow-draft, flat-bottomed transports moved through the channel and arrived at New Madrid, but the ironclad fleet drew too much water to make the transit.

Downstream, Commodore Hollins, C.S.N., in his flagship *McRae*, with seven gunboats, and a powerful floating battery, held the Union forces in check and prevented Pope from crossing the river. Pope needed the ironclads downstream to engage the Confederate Fleet and to silence batteries on the eastern shore prior to crossing with his force, and, unlike Foote, he believed it possible for a gunboat to run the batteries of the island. On encountering further resistance from Foote, Pope wired Halleck and requested that Foote be directed to remove the crews from two of the ironclads and turn them over to him.[42] Foote thought it impossible for a gunboat to run the batteries in view of the 50 odd cannon that would be brought to bear on any vessel hazarding such an undertaking, and perhaps with the carnage of the bout with Fort Donelson fresh in his mind he refused to force this mission on any of his commanders. After continued needling from Pope, Foote finally agreed to let one of his gunboats make the attempt. The commanding officer of the *Carondelet*, Henry Walke, volunteered for this dangerous assignment.[43] On the night of 1 April, a raiding party of 50 sailors from the gunboats and 50 soldiers rowed downstream to the island and spiked the guns of the Confederate guns in prepa-

ration for the *Carondelet's* run downstream.

After the moon had set on the overcast night of 4 April, the *Carondelet* started her journey downstream. All through the day the crew had prepared for this venture; planks, chains, hawsers, and bales of cotton were used throughout the ship, and a barge loaded with bales of cotton was tied alongside to ward off the expected incoming barrage. Steam exhaust—which normally escaped via the stack and which served to dampen the stack soot and keep it from torching—was rerouted into the pilothouse so that its telltale puffing would not be detected. This proved near disastrous, for when the *Carondelet* was but a half mile into the journey, the stack soot torched, and sheets of flame 5 feet high leaped from the stack lighting the river. The Confederate batteries took the *Carondelet* under fire assisted by lightning flashes from a storm over the river. Fortunately, the *Carondelet* steered close to the island, and the Confederate gunners, having depressed the elevation angle of their guns to prevent rain from entering the muzzles, overcompensated and fired over the *Carondelet*. After a 20-minute run through this fire, the *Carondelet* arrived off New Madrid without a scratch but the cotton barge had taken three hits. This feat of heroism should not be underrated, for *Carondelet* ran hard aground while approaching New Madrid, and it took an hour of hard work to float her free. Had this occurred off Island No. 10, the *Carondelet* would have been blasted from the water.

On the night that the *Carondelet* made her run downstream, the Confederate floating battery was alongside the island. After the *Carondelet* had passed, she was set adrift by her crew and floated downstream to the protection of the Confederate Fleet. When Commodore Hollins learned of the *Carondelet's* feat, he concluded that the entire ironclad fleet was nearing down-stream against him. Not wanting to engage these ironclads, he retired downstream. At this time his fleet represented the entire Confederate Navy on the upper river as every available gunboat had been dispatched to New Orleans where Farragut was threatening.

The night's work of the *Carondelet* sounded the death knell for the island; the next night the *Pittsburgh* ran the gauntlet, and the two set to work carrying troops across the river and silencing Confederate batteries. In 2 days the island was completely cut off and recognizing their predicament, the Confederates surrendered. The gunboats had taken their second giant step in their conquest of the river, this one 60 miles in length. More importantly, another flaw in the Confederate defensive strategy was exposed—forts could not stop the transit of the ironclads on the river.[44]

Fort Pillow and Memphis. After the fall of Island No. 10, Foote became impatient with Pope's delay in getting his forces ready to travel and, on 11 April proceeded downriver 80 miles to Fort Pillow, which lay just above Memphis. Fort Pillow was located on a bend in the river and consisted of a 7 mile stretch of fortifications mounting a total of 40 guns. Pope's army joined Foote on 12 April and a plan was generated where troops would be landed 5 miles above the fort, proceed inland and approach the fort from the rear, while gunboats would bombard it from the river.

Terrain and Confederate opposition prevented Pope from gaining an advantage at the rear of the fort. He then proposed to cut a canal across the peninsula to get the gunboats downriver as he had done at Island No. 10. Foote continued to bombard the fort and by 15 April had 10 mortarboats on the firing line. That day Halleck ordered Pope's army, except for two regiments left to garrison the fort when it fell, to

Pittsburg Landing. This left Foote and the gunboats virtually alone to continue the struggle.

Foote, upset by this action and suffering from his wounded leg, wrote Halleck that he had frustrated the most mature and hopeful plans yet formed. Foote thought that by joint operations Fort Pillow would fall in 4 days and Memphis in an additional two. He had good reason to be upset for he was left with a force of seven ironclads, one wooden gunboat, 16 mortarboats, and 1,500 troops to face the fort with its 6,000 defenders, nine Confederate gunboats which three were ironclads. Foote continued the bombardment of the fort, but little progress was made because of spring rains. His health failing rapidly, Foote requested to be relieved and nominated his successor, Capt. Charles H. Davis. On 9 May 1862 Foote hauled down his flag, turned over his command of the flotilla to Davis, and departed upstream to the accompanying cheers of his men.[4 5]

The next morning a mortarboat was towed downstream by the ironclad *Cincinnati* to its usual firing position. A short time later Davis in *Cincinnati* observed eight Confederate steamers bearing down on him, four of them rams. During the engagement which ensued during the next hour, *Cincinnati* was rammed and sank in 11 feet of water and *Mound City*, with her bow rammed off, ran ashore and sank. When the battle ended, the Union boats retired upstream and the Confederates downstream, both claiming victory. Although the *Cincinnati* and *Mound City* were refloated the next day, it had been a costly morning for the ironclads. The exact damage to the Confederate Fleet was never assessed. Davis recorded that two of the Confederate vessels had dropped out of action in a cloud of smoke and steam and one appeared to be sinking as it rounded the bend out of sight.

On 12 May Davis requested that the Secretary of the Navy make available rams being built by the War Department. His request was forwarded to Colonel Ellet who had commenced construction of his ram fleet at Pittsburgh in late March. Ellet and his fleet of (four, five, eight or nine, depending upon historical source) rams arrived off Fort Pillow on 25 May. The confused command situation immediately caused friction between Davis and Ellet. Ellet pressed for a joint attack which would involve a dash by the fort and an attack on the Confederate Fleet. Davis declined and a sharp series of notes were exchanged, finally, Davis wrote Ellet that while his opinion of Ellet's attack plan was unfavorable, he would interpose no objection to Ellet's movements. Before any further naval action took place, the Confederates evacuated the fort and destroyed the magazines on 4 June 1862.

The next day Davis moved the flotilla downstream and anchored that evening above Memphis where the Confederate River Defense Fleet commanded by Capt. J.E. Montgomery was preparing for battle. Although Memphis was a hub of railroad traffic and a major river port, it had no defenses of its own since the Confederates considered that Fort Pillow and Island No. 10 could not be breached. Montgomery did not have enough fuel to make a run for Vicksburg, but rather than destroy the fleet which was the only existing defense of Memphis, he elected to fight.

Early on the morning of 6 June, the Confederate Fleet got underway after receiving a partial load of fuel for each vessel from the private homes of Memphis. As the Union Fleet of five gunboats and four rams got underway, the Confederate Fleet of eight rams and gunboats moved upstream to open the Battle of Memphis. This battle—fierce, intense, and decisive—lasted but 20 minutes. When it was over the Confederate Fleet was destroyed, only one of its gunboats and a supply ship

escaped downriver. Three of the Confederate gunboats were placed out of action by Ellet's rams. This victory, which was in reality a victory for the ram concept, was marred by the death of Ellet a few days later from a wound received in the battle.

Before noon of that day the Stars and Stripes replaced the Stars and Bars over Memphis.[46] Port Hudson and Vicksburg were now the last restrictions to Union control of the Mississippi as Farragut's forces captured New Orleans on 28 April and continued upstream, taking Baton Rouge and Natchez without opposition.

Vicksburg. Driven from the upper river by Davis and the ironclads and from the lower river by Farragut, the Confederates slowly fell back to the strongest natural position on the river, Vicksburg. Had the necessary Federal troops been available immediately after the fall of New Orleans, Vicksburg, which was not then heavily fortified, might have been taken. This Mississippi city, located about halfway downriver between Memphis and New Orleans, is situated on bluffs 200 feet high overlooking a hairpin curve in the river. Its defense at the time of the fall of New Orleans consisted of only 26 guns located atop the bluffs.

In mid-June 1862, Farragut arrived below Vicksburg with his fleet of war vessels together with Comdr. William D. Porter and his mortarboats. On 28 June Farragut ran the guns of Vicksburg to join hands with the rams of Ellet's force, losing 15 killed and 30 wounded in the process. A few days later, on 1 July, Davis and the ironclads joined forces with Farragut. Thus Mississippi River in a small sense was open to the sea. Although the toll was high Farragut proved that the Navy could successfully pass Vicksburg.

Farragut did not believe the Navy could capture Vicksburg without the help of 12,000 to 15,000 troops. He requested assistance from Halleck who replied:

> The scattered and weakened condition of my force renders it impossible for me at the present time to detach any troops to cooperate with you. Probably I shall be able to do so as soon as I can get my troops more concentrated. This may delay the clearing of the river, but its accomplishment will be certain in a few weeks.[47]

It is interesting to compare Halleck's statement with an excerpt from a letter written by Assistant Secretary of the Navy Fox to Admiral Farragut dated 10 July 1863:

> I congratulate you upon the final opening of the Mississippi, you smashed in the door. . . . We do not forget that you and Davis met at Vicksburg a year ago and that five thousand troops which I vainly asked of Halleck (three times that number were lying idle at Helena under Curtis) were denied and a years fighting on the flanks of that river is the consequences. . . .[48]

In view of Halleck's reply, Farragut received permission to return to New Orleans with his ships. The few weeks turned into 6 months, and the task of eliminating the batteries of Vicksburg and Fort Hudson 200 miles downriver remained, a task which was to take just a few days more than a year to accomplish.[49]

On 15 July 1862 Davis sent a force of two gunboats and one ramboat up the Yazoo River to scout for the Confederate ram *Arkansas*. The Confederates had moved the *Arkansas* from Memphis where she was being constructed to the Yazoo which flows into the Mississippi 4 miles above Vicksburg. A falling water level in the Yazoo forced the commanding officer of the *Arkansas*, Lt. Isaac Brown, to rush completion of the vessel. He started downstream

with the intention of breaking through the Union Fleet and proceeding to the support of Confederate forces at New Orleans. He met the scouting party of Davis coming upstream about 6 miles from the mouth of the Yazoo. In the running battle that took place, the *Arkansas* routed the scouting force and then swung onto the Mississippi, catching the Union Fleet at anchor. He passed safely through the Union Fleet, exchanging broadsides en route to the protection of the guns of Vicksburg. In this Confederate victory, Union losses numbered 42 killed and 69 wounded while the *Arkansas* suffered 14 killed and 15 wounded.

During the next week various Union attempts to sink the *Arkansas*, including bombardment and ramming, failed. She finally slipped her mooring and moved downstream to her final resting place, under the command of Lt. Henry Stevens, who had replaced Brown when the latter became too weakened from wounds to travel. The *Arkansas* sailed over the protest of Brown who warned his superiors that she was in no condition to be moved. Several times during the voyage downstream her engines failed, and the last failure drove her ashore just as the Union steamer *Essex* was coming upstream. Stevens had explosives placed throughout the ship, ordered the crew ashore, and put her to the torch while the *Essex* took her under fire from long range. When the *Arkansas* exploded, the commanding officer of the *Essex*, Comdr. William D. Porter, took credit for her destruction. William D. Porter, the brother of David Porter who was to later relieve Davis as commander of the flotilla, wrote glowing reports of how he had destroyed the *Arkansas* in a fierce fight. Farragut and Davis disputed his reports and began an inquiry into the matter. Porter died 2 years later still defending his reports; his brother, who had had nothing to do with him for 15 years, never spoke to him again as a result of this incident.

During the closing months of 1862, the Navy added a fleet of 25 "tinclads" to the river force for use in shallow water operations and several new gunboats, including six second-generation ironclads. The Western Flotilla was transferred to the Navy on 1 October 1862, renamed the Mississippi Squadron, and placed under the command of acting Rear Adm. David D. Porter who was elevated to that rank to be on a command level co-equal to Grant with whom he was to cooperate in the campaign against Vicksburg.

The river force participated in numerous engagements on the Mississippi and its tributaries while awaiting the fall of Vicksburg. The story of this battle could be the subject of a thesis in itself, but suffice it to say that after several unsuccessful attempts by the Army and Navy to take the city, the Union forces settled down to siege operations with the gunboats effectively blockading the city from the river. Their mortars kept up a steady day and night barrage which although not particularly effective served to lower the morale of the defenders of the city. The Mississippi Squadron, running downstream under the guns of Vicksburg, also gave Grant's forces the support they needed

BIOGRAPHIC SUMMARY

Comdr. John F. Dillon, U.S. Navy, attended Indiana State University, Pensacola College, Southwestern College, and The George Washington University. As a naval aviator he has specialized in electronic warfare and has served as Operations Officer for Tactical Electronic Squadron 130, both Executive Officer and Commanding Officer of Tactical Warfare Squadron 133, and Air Operations Officer for the Fleet Electronics Support Group at Naval Air Station, Norfolk, Va. Commander Dillon is currently a student in the College of Naval Warfare.

to cross the river below the city—a stratagem which ultimately led to victory. Of the Navy's role in the defeat of Vicksburg, Grant said:

> The Navy under Porter was all it could be during the entire campaign. Without its assistance the campaign could not have been successfully made with twice the number of men engaged. It could not have been made at all in the way it was, with any number of men, without such assistance. The most perfect harmony reigned between the two arms of the service. . . .[50]

Vicksburg surrendered on 4 July 1863, while in the East, General Lee was withdrawing his battered force from the fields at Gettysburg. Fort Hudson on the Mississippi surrendered 5 days later. The battle for control of the great river which had started at Fort Henry was now over, the Confederacy was split asunder.

Although the Navy participated in other engagements on the rivers in the subsequent years of the war, the real story of riverine warfare took place on the Mississippi from September 1861 to the fall of Vicksburg less than 2 years later.

Summary. The Union Navy was charged with two great tasks during the Civil War: one, being the blockade of the Confederate coast from Texas to Virginia, and the second, control of the Mississippi River in cooperation with the Army. Although there has been a large body of literature written on the battles of the Civil War, the story of naval operations has failed to make a lasting impression in the minds of the American people. Few realize that had the Union failed to control the Mississippi or had the Navy been unable to maintain an effective blockade, France may have intervened on behalf of the South, and the United States might not exist as we know it today.

The North's recognition of the strategic importance of the Mississippi River and its tributaries shaped the subsequent events of the war on the Western rivers. But recognizing the rivers' military significance was not enough. A means to control the rivers was needed. Enter James B. Eads, the man with the ideas, knowledge, determination, and wherewithal to create this means: the Ironclad Pook Turtles, which, together with the Blue Water Navy, swept the rivers of Confederate opposition. Some credit for the creation of this unique gunboat force should go to the Army; it appears that had the Western rivers been under the cognizance of the Navy rather than the Army the ironclad gunboats may not have come into being, at least not in their final form.

When one considers that there never had been a war vessel on the rivers and there existed no provision for riverine operations; the problems of split command with war vessels commanded by naval officers, manned by a mixed crew of sailors and soldiers, and controlled by the War Department; and the independent nature of the ram fleet commanded by Colonel Ellet, which operated outside the military chain of command, it is truly surprising that the great struggle in the Mississippi Valley went so well for the Union.

The only factor that could overcome these difficulties was the appearance of men of stature united in purpose and working toward a common goal. Such men did appear: Grant, Foote, Davis, and Porter; and significantly, despite the obvious friction and disharmony among them, they were able to combine throughout the successful Mississippi Valley campaign from Fort Henry to Vicksburg.

The teamwork of Union infantry and gunboats denied the Confederacy access to the rivers which were vital for both commerce and military operations. By dividing the Confederacy down the middle, Union riverine forces effectively

contributed to the slow strangulation of the Confederacy from without, while the Army pounded it to death from within.

FOOTNOTES

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Fighting is nothing to the evil of the river—getting on shore, running afoul of one another, losing anchors, etc.

David G. Farragut: Letter off Vicksburg, 1862