The Vicksburg Campaign: A Study in Joint Operations

RONALD SCOTT MANGUM

Joint operations, conducted by two or more services of the same nation, are an essential element of modern warfare. From the shortcomings in the Cuban missile crisis and Grenada to the successes of Panama and Kuwait, the services have struggled to understand the intricacies of interservice command, control, and logistics. We can learn valuable lessons from past joint military endeavors, even from one of the earliest ones such as the joint action of Army and Navy forces which led to Grant's capture of Vicksburg, Mississippi, in 1863.

The Mississippi River flows through ten states and is fed by over 50 navigable tributaries. In 1861 it was a great highway of commerce for nearly half the nation, and was the gateway to international trade with Europe. Early Union strategy was to starve the Confederacy into submission by blockading Southern ports. This effort proved counterproductive when applied to the Mississippi, and it became clear that only by opening the river, rather than blockading it, could the "backbone of the rebellion" be broken.[1]

Vicksburg was the key to control of the Mississippi; as President Lincoln observed, "The war could never be brought to a close until the key is in our pocket."[2] Produce from the Red and Arkansas rivers was shipped to Vicksburg, transported by rail to the junction at Jackson, and from there distributed all over the Confederacy. Cutting that link by controlling the Mississippi would not only reopen commerce to the midwest, but would also deprive the Confederacy of supplies needed to feed its people and maintain its armies.

The east bank of the Mississippi north to Memphis was a continuous tangle of swamps and bayous which criss-crossed the Yazoo River valley. That valley, the greater part of which was impassable to troops, and whose streams were deemed impassable for vessels,[3] formed a natural defense to any attempt

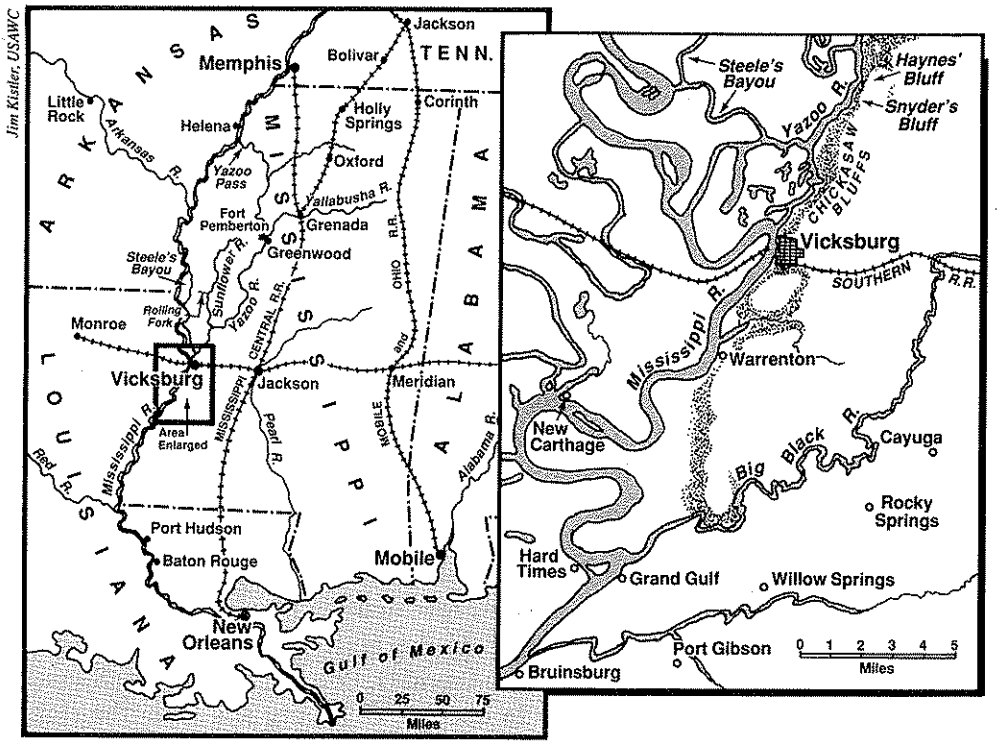
to reach Vicksburg from the north. Situated at a hairpin bend in the river known as Vicksburg Point, the city ran a mile and a half from the waterline to bluffs which rose some 250 feet above the river. Its fortifications were scattered over 28 square miles, with guns emplaced in groups and concealed from view.[4] In addition, batteries and trenchlines covered the bluffs for almost 20 miles north to Chickasaw and Haynes' bluffs, and 14 miles south to the city of Grand Gulf. The only possible landing site was on the Yazoo River in front of either Chickasaw or Haynes' bluffs.

The Campaign

On 2 November 1862, Major General Ulysses S. Grant's Army of the Tennessee moved south from Bolivar, Tennessee, to capture northwest Mississippi and reopen the Mississippi River. On 8 December, Grant reached Oxford, Mississippi, and paused to formulate his next move. "I wish you would come over this evening and stay to-night . . . I would like to talk with you about this matter," he wrote to Major General William T. Sherman, one of his division commanders. Grant then revealed his plan to send Sherman with 30,000 troops to effect a landing on the bluffs north of Vicksburg in cooperation with Flag-officer (Admiral) David D. Porter's Mississippi Squadron. Sherman's objective would be to occupy Vicksburg and form the right wing of Grant's army as it moved down the Mississippi Central Railroad to capture the vital rail junction at Jackson, Mississippi.[5]

On 12 December, Porter, in anticipation of the expedition, sent three ships up the Yazoo to reconnoiter, clear the channel of torpedoes, and seize a bridgehead for the Army.[6] Sherman was in place and attacked on 29 December. In support, the Navy fired on the Confederate batteries, shelled the road to Vicksburg to interdict any reinforcements coming forward, and shelled Haynes' Bluff to deceive the Confederates as to the location of the main attack.[7] Heavier-than-expected Confederate resistance, combined with a steady rain which shrank the little land available for maneuver, caused the attack to fail. Furthermore, Sherman did not know that on 20 December, Confederate forces under Generals Van Dorn and Forrest had raided Grant's supply base at Holly Springs in northern Mississippi and an important rail center at Jackson, Tennessee. Grant, afraid to leave his supply line unprotected, withdrew north, leaving Confederate General Pemberton free to reinforce the bluff defenses with forces from Vicksburg. Sherman's flank attack was thus doomed from the onset.

Lieutenant Colonel (P) Ronald S. Mangum, Special Forces, USAR, is managing partner in the law firm of Mangum, Smietanka, & Johnson, in Chicago, and is Assistant Chief of Staff for Civil-Military Affairs, 85th Division Maneuver Exercise Command, Fort Sheridan, Illinois. He is a graduate of Northwestern University (B.A., history), Northwestern University School of Law, and the US Army War College.



After the failed attack, Grant hoped either to bypass the Vicksburg batteries using the bayous to the west of the river, or to find a back door to high ground north of Haynes' Bluff. He would send two joint expeditions into the bayous to explore those possibilities. On the first expedition, Grant approved Porter's plan to send his warships through flooded land east of the Mississippi to Steele's Bayou, and then through the Rolling Fork, Yallabusha, and Sunflower rivers into the Yazoo above the bluffs, accompanied by Sherman with 10,000 troops on foot to follow along the bank. "It was intended from the first that we should travel along together for mutual support,"said Porter,[8] with the Navy transporting Sherman across rivers and marshes and the Army keeping off sharpshooters. Porter outdistanced the soldiers and was trapped by Confederate forces who blocked the bayous with fallen trees. In grave danger of being captured, he was making plans to blow up his ships when Sherman's troops appeared and saved the squadron. Seeing that the Confederates were able to control the tortuous streams, Sherman abandoned the expedition on 26 March 1863.

The second expedition, consisting of two heavy iron-clads and 4000 troops in transports, entered the Yazoo Pass from the Mississippi into the Yallabusha and Sunflower rivers which connected with the Yazoo above Greenwood. The expedition successfully reached the Yazoo but was stopped by a hastily erected Confederate fort at Greenwood. The gunboats attacked the fort

and silenced its guns, but the land in front of the fort was too marshy to land troops. As a result, the Yazoo Pass expedition on 8 April also ended in failure.

Clearly stymied in his attempts to land north of Vicksburg, Grant wrote to Sherman: "I had made so much calculations upon the expedition down Yazoo Pass, and now again by the route proposed by Admiral Porter [Steele's Bayou], that I have made really but little calculation upon reaching Vicksburg by any other than Haynes' Bluff. As soon as the Admiral can get his gunboats back for service, I will concentrate all my forces and make a strike [at Haynes' Bluff]."[9] On 1 April, Grant, Sherman, and Porter steamed up the Yazoo to reconnoiter Haynes' Bluff. The next day, Grant wrote to General Halleck, US Forces Commander, reporting on his reconnaissance: "I am satisfied that an attack on Haynes' Bluff would be attended with immense sacrifice of life, if not with defeat. This, then, closes out the last hope of turning the enemy by the right."[10] In the same letter, Grant revealed his plan to have part of the fleet run the Vicksburg batteries while his soldiers marched south to New Carthage along the west bank on land newly exposed by the receding Mississippi flood waters. They would cross at New Carthage and attack Grand Gulf.

On 15 April, McClernand's corps marched for New Carthage, with Admiral Porter leading several gunboats and barges past the Vicksburg batteries the next night. On the 17th, Porter conducted a reconnaissance by fire on the batteries at Grand Gulf, reporting that they could be easily taken by a Navy-supported ground assault. McClernand, however, refused to move, and by the time Grant arrived the Confederates had completely fortified Grand Gulf with heavy batteries. On 29 April, Porter opened his assault with seven iron-clads, continuing with close and rapid fire for over five hours. The batteries were silenced, but not destroyed. Grant moved his forces eight miles further south opposite Bruinsburg, and at noon the next day began crossing two corps totalling 32,000 troops to the east bank of the river in the move against Grand Gulf. Concurrently, Sherman's corps, with gunboats,[11] made a feint at Haynes' Bluff to deceive Pemberton as to the true location of Grant's attack.[12]

After the crossing to Bruinsburg, the Vicksburg campaign turned into a land battle, with Grant maneuvering between the two armies of Pemberton and Joseph Johnston to keep them separated and defeat them in detail. By 19 May, Grant had driven Johnston out of Jackson and forced Pemberton to fall back on Vicksburg, whereupon the reduction of that city began. On the appropriately symbolic date of 4 July 1863, after 45 days of siege, Pemberton surrendered Vicksburg in a resounding defeat for the Confederacy that marked the beginning of the end. How was it possible for a joint Army-Navy campaign to proceed so harmoniously and successfully almost 80 years before the concept of joint warfare was itself doctrinally sanctified? Why was Army-Navy cooperation effective in the Vicksburg campaign, while joint campaigns against New Orleans and on the Red River ended in bitter acrimony?

The Principals

It would be in vain to seek answers to the foregoing questions by presuming an ad hoc joint staff or an unofficial unified command arrangement quietly contrived by the parties. There was clearly no joint staff available to Grant or Porter to coordinate their operations. What coordination took place happened primarily between independent commanders. It is with the character and personalities of these men, therefore, that we should begin our search for answers, particularly as manifested during combat operations and the various support activities.

The keys to success of the campaign were the personalities of the three principal actors—Grant, Sherman, and Porter. Without the amity and deep understanding that developed between them, it is unlikely that the expedition could have been carried off at all. As Grant said in his official report of the campaign, "Without Porter's prompt and candid support, my movements would have been much embarrassed, if not wholly defeated."[13]

Ulysses S. Grant was 40 years old at the beginning of the Vicksburg campaign. He had graduated from West Point as an infantry lieutenant, and, although assigned as regimental quartermaster in the Mexican War, served with distinction in the front lines.[14] Grant was a calm, stable commander of whom Porter wrote: "He works like a horse, while he should make others do it for him."[15] At the victory celebration aboard Porter's flagship, he saw Grant as "one man who preserved the same quiet demeanor he always bore, satisfaction on his face that could not be concealed, but behaved on that occasion as if nothing of importance had occurred."[16]

William T. Sherman, 42 years old in 1862, had graduated from West Point as an artillery officer. He later observed: "Then, as now, neatness in dress and form, with a strict conformity to rules, were the qualifications required for office, and I suppose I was not found to excel in any of these."[17] Sherman had served in the Seminole War and the Mexican War, when he was quartermaster of troops. A colleague once wrote of him: "Sherman had one peculiarity. He could not reason—that is, his mind leaped so quick from idea to idea that he seemed to take no account of the time over which it passed, and if he was asked to explain how he came by his conclusions it confused him . . . he had utmost faith in his inspirations and convictions."[18]

David Dixon Porter was 49 when the campaign began. He had received his formal education as well as learning the fundamentals of seamanship in two navies—the Mexican navy, commanded by his father, and the US Navy, commencing in 1829. While in the Mexican navy he was captured by the Spanish and, in what was to be an instructive voyage, returned home by way of New Orleans and up the Mississippi River through Vicksburg. Porter had served in direct support of Winfield Scott during the Mexican War,

capturing a fort at Tobasco. His bombardment of Confederate forts in 1862 had permitted Admiral David Farragut to capture New Orleans.[19]

Porter and Grant first met at a dinner party. Grant came in, "a travel-worn person dressed in citizen's clothes," and sat with Porter to explain his plans for capturing Vicksburg. He then left without taking any food or drink to return to his troops. Porter was impressed.[20] Three days later, at Memphis, he met Sherman, who was "unassuming" in a blue flannel civilian suit. "This was the first time I had ever met General Sherman, and my impressions of him were very favorable. I thought myself lucky to have two such generals as Grant and Sherman to cooperate with."[21]

There are commonalities among the three. Each was not only trained in line operations, but also had a logistics background and had served in the Mexican War. They were each subject to bouts of depression and were of a "private" disposition.[22] Most important, all of them were out of the mainstream of command and promotion in their service. Each was a professional who saw soldiering or sailoring as an honorable calling, not as a means to gain personal fame.

Command of the Vicksburg campaign was clearly split between Porter and Grant. Neither had the authority to control the other. Halleck suggested to Grant that he "ask Porter to cooperate,"[23] and cooperate he did. Porter noted afterward that "it is only through that high courtesy bred in a purely military school that so perfect an understanding was achieved,"[24] but it was also through the friendship and high mutual regard that developed between the two leaders. When Grant arrived at the mouth of the Yazoo in January 1863, Porter's flagship became the temporary headquarters of the joint commands, with Grant and his subordinates coming there daily for conferences.[25] By March, Grant had moved his headquarters ashore, but Porter wrote: "Grant and Sherman are on board almost every day. Dine and tea with me often; we agree on everything."[26]

At lower levels of command, coordination was achieved by directive from above to follow a particular commander of one service or the other. Porter gave orders to his subordinates to "obey the orders of Generals Grant and Sherman the same as if they came from myself."[27] On the Steele's Bayou expedition, General Smith was ordered by Sherman to report to Porter for orders, whereupon Porter turned over to Smith all of the fleet's Marine forces to operate under Smith's command to clear out sharpshooters.[28]

Coordination on the Yazoo Pass expedition did not go as well. Grant ordered his soldiers to board gunboats as directed by the Navy, with the troops under immediate command of their own officers, who should not exercise any control over the vessel.[29] When the expedition ran into Fort Pemberton, the Navy silenced the guns but the Army refused to attack. Each side blamed the other for the failure, but as Porter said, "In this case the officer commanding the troops should have been subject to the orders of the naval officer."[30]

As with the Army, the chain of command over naval forces was tortuous. Naval forces of the Mississippi Squadron were initially under the command of the War Department, "as it was supposed the armed vessels would be a mere appendage of the land forces."[31] The commander of the squadron was under the operational control of the land force commander, even though the naval commander continued to report directly to the Secretary of the Navy, not to the Secretary of War. As a result, there was often a stand-off in operations because of the confused chain of command.

In March 1862, Secretary of War Stanton authorized Charles Ellet, Jr., a civil engineer, to "purchase and outfit steam rams for defense against iron-clad vessels in the Western waters."[32] The ram fleet was to remain under the direct control of the Secretary of War. In April 1862, Stanton directed Ellet to operate with the "concurrence of the naval commander of the Mississippi." When Ellet protested that the Navy might not "concur" with his brash methods of attack, Stanton temporized, noting that Ellet was not "distinctly under the command of the naval commander.[33] Control of the ram fleet remained a bone of contention throughout the Vicksburg campaign; Porter states that at one point he was "very near arresting old Ellet and should have done so."[34]

The last maritime element in the campaign was the Mississippi Marine Brigade. Porter requested Marines from the Navy to protect the squadron, but not enough were available. The Navy therefore created the brigade around the ram fleet. Designed to have 2000 soldiers in one infantry regiment, four cavalry squadrons, and one light artillery battery,[35] its mission was to keep open the Mississippi during the Vicksburg campaign by dispersing roving bands of Confederate artillerists and sharpshooters.[36] As an intermediate step after Porter urged that all maritime forces be placed under one commander, the squadron was transferred from the War Department to the Navy Department on 1 October 1862. Then on 8 November, Stanton directed Ellet's ram fleet and Marine Brigade to report "for orders and duty" to Porter.[37]

Cooperation was enhanced at the enlisted level because many of the Army troops were Mississippi boatmen, thus being quite at home on either transports or gunboats. When Grant asked Porter to run the Vicksburg batteries, only two of the transport captains and one crew would make the attempt. A request for volunteers among the Army troops produced five times the number needed, and the majority of transports passed the batteries with Army captains, pilots, mates, engineers, and deck hands.[38]

Combat Operations

Grant admitted that he could not have even contemplated the Vicksburg campaign without naval support,[39] which permeated every phase of the campaign. The Army moved by river transport, which was easy prey to Confederate batteries without naval involvement. Naval gunfire was necessary to prepare and

cover any landing by the Army on the east bank of the Mississippi. Naval support was also important in creating believable deception operations, while naval convoy duty was required to keep open supply lines to Grant's forces.

At the outset of the campaign, Porter sent ships to the Yazoo to clear the way for Sherman's attack at Chickasaw Bluffs. He covered the landing with gunfire and interdicted supply routes to the battlefield. At Fort Pemberton and Grand Gulf, the Navy silenced Confederate batteries to permit landings by Army troops. Grant opted not to risk his soldiers on transports in passing the Vicksburg batteries, but the Navy risked its men and ships to escort the transports needed to cross the Army to the Confederate bank. A typical indication of Grant's confidence in Porter's ability is his reply to the question of how he proposed to get the transports through: "That is the Admiral's affair."[40]

During the siege, Grant was short of siege cannon and asked Porter to provide some. Porter supplied a battery of large-caliber guns and a Navy crew to man them.[41] Also during the siege, Sherman requested naval gun fire to silence a water battery which prevented him from extending his lines. Again, the Navy promptly complied, even though a ship was lost in the effort.[42] The gunboats and the mortar flotilla kept up a bombardment of the Confederate lines and the city for the duration of the siege, and especially heavy bombardments were laid down during ground attacks by Grant's army.[43]

Joint operations were carried out to deceive Pemberton as to Grant's intent to run the batteries and land south of Vicksburg. On 29 April, while Grant watched the naval attack on Grand Gulf, Sherman feinted at Haynes' Bluff with gunboats, mortar rafts, and ten regiments on transports.[44] While the gunboats fired all their cannons, the infantry landed, marched in front of the defenders, reboarded behind concealment, and repeated the exercise several times. The Navy towed a blacksmith barge to a concealed location and fired up every forge to produce all the smoke possible.[45] Pemberton had already complained to Johnston that he was holding an overbroad front, with large forces on either flank out of supporting distance.[46] Now he had Union naval forces attacking at Grand Gulf and a great armada with ground forces attacking Haynes' Bluff. Troops rushing south to meet the threat at Grand Gulf were recalled and counter-marched north to counter the new threat. As a result, only 4000 Confederates were available to meet Grant's 32,000 troops crossing to Bruinsburg.[47]

Porter also provided convoys to protect supply ships coming south from Memphis,[48] to escort troopships bringing reinforcements,[49] and to bring paymasters to the front to pay the troops.[50] These convoys were in addition to the frequent counter-guerrilla landings by the Marine Brigade to clean out Confederate sharpshooters.

When the Confederates were finally forced to evacuate Haynes' Bluff, Grant asked Porter to send the Marine Brigade to occupy the place.[51] He also requested that the brigade's steamers be sent to Memphis to bring down more

reinforcements.[52] Porter not only provided the troops and steamers, but also sent to Cairo, Illinois, for additional siege guns for the Army's use.

Under the rubric of combat support, we can include such essential functions as intelligence, communications, and logistics. Reconnaissance was an important role of command, to be performed either in the person of the commander himself or at his direction. Because so much of the theater was on the river, most Army reconnaissance was conducted on Navy vessels.[53] For example, prior to the expedition against Chickasaw Bluffs, Porter's gunboats reconnoitered the landing sites;[54] on the Yazoo Pass expedition, Grant "respectfully advised" Porter to have his ships "well reconnoiter" all navigable bayous before the expedition ended.[55] Grant accompanied Porter on a personal reconnaissance of the Steele's Bayou route before he approved the expedition,[56] and, according to Porter, Navy gunboats were constantly employed by Grant in making reconnaissances.[57] Porter, on his own initiative, conducted a reconnaissance by fire of the Grand Gulf batteries soon after passing Vicksburg, as a result of which he (unsuccessfully) urged McClernand to mount an immediate joint attack.[58]

Another joint intelligence effort involved Navy photo reconnaissance. The guns at Vicksburg were scattered and concealed so as to be almost impossible to detect. A Navy photographer took a large photograph of the city which, with the aid of enlargement and a magnifying glass, revealed guns hidden inside the railroad depot and screened by tipped-up carts.[59] Maps were in short supply, but two naval officers of the Navy Coast Survey were attached to the squadron and accompanied almost every expedition. They kept both the Army and the Navy supplied with charts of the river and with charts of the Vicksburg trenches as well.[60]

Each service had its own communication troops. Army signaling was done by specially trained soldiers, while telegraph communications were handled by employed civilian telegraphers.[61] The Navy used its own system of flags and semaphores, but communication problems existed between the services. Army Signal Corps troops were assigned to Grant's headquarters and to the corps headquarters, and in addition were permanently attached to Porter's flagship and to the Marine Brigade.[62] The only line of ready communication between Porter and Grant was the Army signal station at Snyder's Bluff,[63] and the only means of communication between ships of the Marine Brigade were Army signalers.

In addition to formal signal communications, local commanders developed their own recognition signals. Here is the method Sherman directed prior to the Chickasaw Bluffs attack: "If troops encounter a gunboat, show the United States flag and two white handkerchiefs or cloths, one on each side of the flag. This is the signal agreed upon by myself and the Admiral by which our troops can be distinguished from the rebels, who sometimes display our flag and wear our clothes."[64]

So far as logistics is concerned, it is an axiom of war that an army should move only from a protected base of supply. The primary supply base for the joint expedition was Memphis.[65] When Grant moved south to Oxford, he was careful to build up enough supplies at Holly Springs to support his attack, and he cautioned Sherman to take two or three small boats with him in his assault on Chickasaw Bluffs so that Grant's forces could use the Yazoo as a supply line. When Van Dorn's attack forced the Union Army to withdraw toward Memphis, Grant embarked on the river expedition. Initially, all supplies for both Army and Navy came by boat from Memphis. When Grant realized the impossibility of landing above Vicksburg and determined instead to attack from the south, he did so at the jeopardy of his supply line. Writing of his plans to Halleck, Grant promised to "see to it that I will not be cut off from my supplies."[66] When Sherman learned of the move, he visited Grant and urged that the Army return to the first high ground north of Vicksburg, "fortify and establish a base of supplies, and move from there, being always prepared to fall back upon it in case of disaster." Grant replied that Sherman's suggestion would take them back to Memphis, and Sherman said that was the "very place" he would go.[67]

Porter also pointed out to Grant the difficulties of operating from south of Vicksburg before that city was captured. He pointed out that any gunboats which passed the batteries would be lost to the operations north of Vicksburg, because they could not pass up again.[68] He noted that the Army could live off the land, but that the Navy depended on coal and provisions brought on ship and could last only 60 days without resupply. Accordingly, Porter recommended to Grant that they take up the railroad opposite Vicksburg and build a line to New Carthage for supplies.[69]

One anecdote illustrating logistics problems between the services has a distinctly modern ring. Both Navy gunboats and Army transports used coal as fuel. Grant directed that Army transports should take Navy coal only in case of emergency, and that such coal be promptly replaced. "The two branches of service are supplied out of different appropriations, hence the necessity of being particular in this matter," Grant wrote.[70]

On a day-to-day basis, the Army and Navy shared provisions and fuel as necessity and availability required. Porter ordered siege guns, presumably from Navy ordinance, to support Grant, and Grant provided whatever supplies possible to Porter's squadron.

Lessons Learned

Aside from the generalship of Grant himself, the Vicksburg campaign succeeded primarily because of the close personal cooperation of its military and naval leaders. That type of relationship cannot be repeated with consistency, however. A firmly developed joint planning effort under a single commander is therefore imperative. Halleck told Grant that he had "permission to fight the

enemy where you please."[71] Porter confirmed that "each commander acted on his own responsibility, neither having received any instructions from their several Departments."[72] When reporting on the failed Yazoo Pass expedition, Porter put his finger directly on the problem:

> There was not sufficient unity in command; there was a kind of stand off between the Army and the Navy when acting together which prevented them from working in harmony and with one purpose. There should always have been one man in an expedition in command of the whole, and his authority should have been so manifest that there would have been no appeal from his orders.[73]

In addition, the campaign commander needs sufficient geographical authority to command the whole, but only so much territory as is necessary to accomplish the objective. Grant's department covered Arkansas, western Tennessee, and Mississippi. As departmental commander and commander of the Army of the Tennessee, he was "liable at all times to be compelled to divert from the Mississippi River expedition a large portion of [his] forces" to hold Tennessee against threats by Confederate General Braxton Bragg.[74] On the other hand, Grant's authority ended somewhere below Vicksburg, where commenced the Department of the Gulf under General Nathaniel Banks, who was making desultory attempts to capture Port Hudson, the only other Confederate stronghold on the Mississippi. That fortress was much smaller than Vicksburg, and if Grant had controlled Banks he could have shifted troops and ships to reduce Port Hudson and attack Vicksburg from the south much earlier in the campaign.[75] Grant's command of a "Mississippi Theater" would have hastened the strategic objective of reopening the Mississippi.

Deception, a key element in any campaign, is multiplied through the use of joint forces. Neither the Army nor the Navy could have separately created the threat perceived by their adversaries. Wide-ranging and varied joint operations kept the Confederates off balance, multiplying the effects of planned deception such as Sherman's feint at Haynes' Bluff. Even the unsuccessful attempts to navigate the bayous in the Yazoo River valley "greatly alarmed" Vicksburg, causing guns and troops to be removed from the Mississippi to defend against phantom threats.[76]

There also is a lesson for today in the poor interservice communications that prevailed in the Vicksburg campaign. They were successful only by dint of extraordinary, even heroic, ad hoc expedients. But war today is no longer conducted at the pace of a horse or Mississippi River barge. It is conducted at such a tempo that necessary reaction times are often measured in terms of microseconds. Thus fully integrated interservice communications gear must be fielded and constantly exercised.

Porter reported confidentially that he liked Grant "very much,"[77] and he noted of Sherman that "he has more brains than all put together."[78] Because

of the complexities of the Vicksburg campaign, any acrimony between the principals would have caused the whole to collapse like a house of cards. Since we cannot assure that commanders in the future will have the personality to make war successfully on a purely cooperative basis, we must rely instead on a genuinely and completely joint service planning and operating structure. The religious among us can hope that the Lord answers Sherman's prayer: "God grant that the harmony and mutual respect that exist between our respective commanders, and shared by all the true men of the joint service, may continue forever, and serve to elevate our national character."[79] But we soldiers, sailors, and airmen of today have the power in ourselves to make Sherman's prayer a reality. Though the recent war against Iraq was complicated by its coalition aspects, it appears that the US joint command established for Operations Desert Storm and Desert Shield did indeed achieve the degree of force integration and command unity we must insist upon for modern war. For a final verdict, however, we must await the operations' after-action reports and perhaps even the memoirs of the principals themselves.

NOTES

1. David D. Porter, *The Naval History of the Civil War* (New York: Sherman Publishing, 1886, p. 268.
2. David D. Porter, *Incidents and Anecdotes of the Civil War* (New York: D. Appleton & Co., 1885), pp. 95-96.
3. James Russell Soley, "Naval Operations in the Vicksburg Campaign," in *Battles and Leaders of the Civil War*, ed. Robert V. Johnson and Clarence C. Buel (New York: Castle, 1956), p. 561.
4. Porter, *Naval History*, p. 286.
5. William T. Sherman, *Memoirs of General William T. Sherman* (New York: Da Capo Press, 1984), pp. 281-82.
6. Earl B. Hallstoni, *Joint Operations in the Civil War*, Study Project (Carlisle Barracks, Pa., 1989), p. 38.
7. Porter, *Naval History*, p. 286.
8. Porter, *Incidents*, p. 148.
9. United States War Department, *War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies* (Washington: GPO, 1880-1901), Series I, Vol. 15, p. 301; Vol. 24, Part III, p. 127. Hereinafter referred to as ORA.
10. ORA, Series I, Vol. 24, Part III, p. 168.
11. Rowena Reed, *Combined Operations in the Civil War* (Annapolis: Naval Institute Press, 1978), p. 254.
12. ORA, Series I, Vol. 24, Part III, pp. 240-44.
13. ORA, Series I, Vol. 24, Part I, p. 58.
14. Hallston, p. 13.
15. Gustavus Vasa Fox, *Confidential Correspondence*, ed. Robert Means Thompson and Richard Wainwright (New York: DeVinne Press, 1919), II, 174.
16. Porter, *Incidents*, p. 201.
17. Hallston, p. 20.
18. David French Boyd, "General W. T. Sherman as a College President," *The University Bulletin, Louisiana State University*, I, No. 10 (1910), 4.
19. Hallston pp. 22-27. See also the entry for David Dixon Porter in *Encyclopedia Americana*, Vol. 22 (1984 edition).
20. Porter, *Incidents*, p. 127.
21. Ibid.
22. Ulysses S. Grant, *Personal Memoirs of U. S. Grant* (New York: Da Capo Press, 1982), pp. 17-18; Porter, *Incidents*, p. 129; Fox, II, 172.
23. ORA, Series I, Vol. 27, Part II, p. 473.
24. Porter, *Naval History*, p. 328.

25. Paul Lewis, *Yankee Admiral: A Biography of David Dixon Porter* (New York: David McKay, 1968), p. 136.
26. Fox, II, 161.
27. Porter, *Incidents*, p. 143.
28. Sherman, p. 312.
29. ORA, Series I, Vol. 24, Part III, p. 38.
30. Porter, *Incidents*, p. 143.
31. Porter, *Naval History*, p. 38.
32. ORA, Series I, Vol. 10, Part II, p. 59.
33. Ibid., p. 131.
34. Fox, II, 166.
35. Phillip Katcher, *American Civil War Armies: Staff Specialist and Maritime Services* (London: Osprey, 1986), p. 20.
36. Reed, pp. 230-31.
37. Soley, p. 559.
38. Grant, p. 247.
39. Ibid., p. 240.
40. Porter, *Naval History*, p. 308.
41. Grant , p. 281.
42. ORA, Series I, Vol. 24, Part III, p. 329.
43. ORA, Series I, Vol. 24, Part III, p. 333; Porter, *Naval History*, p. 321.
44. Reed, p. 254.
45. Lloyd Lewis, *Sherman: Fighting Prophet* (New York: Harcourt, Brace, 1932), p. 272.
46. Joseph E. Johnston, *Military Operations During the Civil War* (New York: Da Capo Press, 1959), p. 175.
47. Porter, *Naval History*, p. 316; Lewis, p. 272.
48. ORA, Series I, Vol. 24, Part III, p. 327.
49. Ibid., p. 396.
50. Ibid., p. 83.
51. Ibid., p. 361.
52. Ibid., p. 368.
53. Porter, *Naval History*, p. 136.
54. Paul Lewis, p. 134.
55. ORA, Series I, Vol. 24, Part III, p. 36.
56. Ibid., p. 21.
57. Porter, *Naval History*, p. 140.
58. Ibid., p. 316.
59. Ibid., p. 299.
60. Ibid., p. 330.
61. Katcher, p. 19.
62. ORA, Series I, Vol. 24, Part I, pp. 130-41.
63. Ibid., p. 132.
64. ORA, Series I, Vol. 17, Part II, pp. 621-22.
65. Ibid., pp. 468-69.
66. Ibid., Vol. 24, Part I, p. 26.
67. Grant, p. 283.
68. ORA, Series I, Vol. 24, Part III, p. 152.
69. Fox, II, 174.
70. Ibid., p. 39.
71. ORA, Series I, Vol. 17, p. 469.
72. Porter, *Naval History*, p. 328.
73. Porter, *Incidents*, p. 143.
74. ORA, Series I, Vol. 24, Part III, p. 36.
75. Ibid., Vol. 15, p. 301.
76. Porter, *Naval History*, p. 307.
77. Fox, II, 180.
78. Ibid., p. 176.
79. Porter, *Naval History*, p. 327.