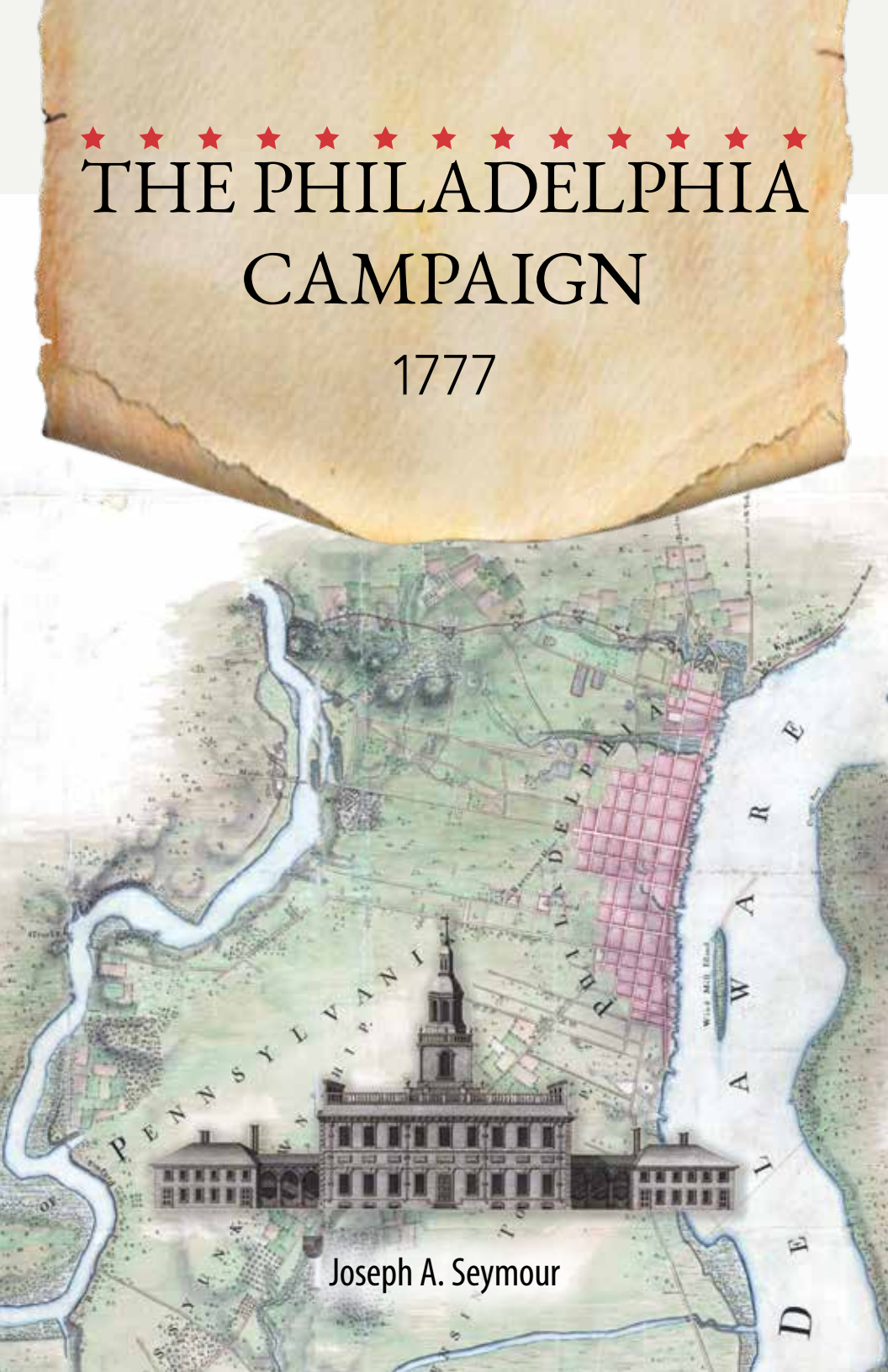
THE PHILADELPHIA CAMPAIGN

1777



Joseph A. Seymour

The U.S. Army Campaigns of the Revolutionary War

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The U.S. Army Campaigns of the Revolutionary War

THE PHILADELPHIA CAMPAIGN 1777

by
Joseph A. Seymour

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Note: We have retained the original spelling, capitalization, and punctuation in quoted material.

INTRODUCTION

As America celebrates the 250th anniversary of the Revolutionary War, it is a perfect time to reflect on the revolutionary generation. In the two-and-a-half centuries since the war, the United States has grappled with the complexities and paradoxes of its revolution. How could a nation be born from the idea that all men are created equal, and yet deny much of that freedom to women and to many of its own population based on the color of their skin? How should a central federal government balance power with state governments? Could those thirteen fractious colonies merge into one nation? The seeds of what would become our country's future political and military conflicts lie in these complexities, as do some of our greatest national accomplishments.

This milestone anniversary is also an appropriate time to reflect on the history of the United States Army. The Army stands as our first truly national institution, having been established by the Continental Congress on 14 June 1775. General George Washington's ability to meld the soldiers of the various colonies together into one national force provided an example to the rest of the country that national unity was possible. If the Army failed to overcome the regional sectionalism prevalent at the time, it would fall to superior British resources and organization. If the Army failed, the nation would fail. Washington gave us the precedent of military subordination to the civil authority, one of the core tenets of our political tradition and way of life. At the end of the war, he resigned his commission and voluntarily gave up all his power to return to civil life. His example has inspired us as a model of military and political leadership for generations.

The Massachusetts militiamen who fired the first shots of the war on 19 April 1775 had no blueprint for creating a nation—nor did many think that the conflict would result in a drive for independence. Deep-seated colonial resentments over their rights as English citizens had been simmering since before the 1750s. As the British Parliament enacted even more restrictive laws, peaceful protests turned to military organization, and finally open violence. As New England formed its Army of Observation in the wake of the battles of Lexington and Concord, the Continental Congress saw the need for a national army.

For eight long years, the Continental Army maintained itself in the field, despite fighting superior odds, starvation, diminished resources, and divided leadership. Setbacks in the New York Campaign of 1776 nearly destroyed Washington's army as the British drove it into Pennsylvania. Yet as 1777 opened, Washington changed the operational situation by seizing the initiative in a series of tactical victories at Trenton and Princeton, New Jersey. That fall, a British invasion into northern New York met with failure and capture at the hands of the Northern Army and militia at Saratoga, ultimately bringing France into war on the side of the United States. At the same time, Washington kept a British army penned up in Philadelphia while he instituted a training regimen for his army at their encampment in Valley Forge that winter. Trained under the tutelage of German-born Frederick von Steuben, the Continentals harried the British out of Philadelphia and back to New York City, fighting like regulars at Monmouth in 1778.

General Washington faced the challenge of countering British victories at Charleston, South Carolina, and Savannah, Georgia, when the British shifted the war south in 1778, while also containing powerful British forces in Canada and New York City. Relying on skilled subordinates such as Anthony Wayne, Nathanael Greene, and the Marquis de Lafayette—all of whom in turn worked closely with state militia—Washington was able to hold the delicate balance of power in both the northern and southern theaters. Seizing the opportunity presented by his French allies, Washington quickly shifted a large portion of his army from New York City to Yorktown,

Virginia. There, the allies laid siege to another British army, forcing it to capitulate in the fall of 1781. Although this victory sounded the death knell for British control of the American colonies, peace talks would last for two more years. During this time, Washington kept an army in the field, maintained the supremacy of civil authority over the military, and presented a credible threat to the remaining British garrisons. When the peace came, the true architects of the revolution's success were the Continental Army, state troops, and the militia.

The Revolutionary War created the model for our modern Army. It set the stage for what eventually would become a three-component force, with the Continentals and militia operating in complementary roles. Today, thirty-three National Guard units can trace their lineage to the Revolutionary War, which is a testament to their role in the formation of this country. Eight army branches also have their beginnings in the revolution. The U.S. Army's very motto, "This We'll Defend," is rooted in the "self-evident" truths enunciated in the Declaration of Independence and American interpretations of Enlightenment traditions, which came together in the seal for the Board of War and Ordnance and became the Department of the Army seal in the twentieth century. Unfortunately, it also would take until the twentieth century for the U.S. Army to be as racially integrated as its Continental Army forebears.

The traditions begun and precedents set by Washington and his soldiers continue to influence the U.S. Army and causes around the world. The seeds of hope shown at Trenton and Princeton have inspired leaders in other dark times, such as Bull Run, Shiloh, and Kasserine Pass. The revolutionary generation taught us that the true strength of our Army is our people; from the frontline soldiers to the camp followers who sustained the regiments. And it is to these individuals, who forged ahead through privation and misery to final victory and who rarely received any greater recognition in their own lifetimes than the simple epitaph "A Soldier of the Revolution," that these volumes are humbly dedicated.

CHARLES R. BOWERY JR.
Executive Director

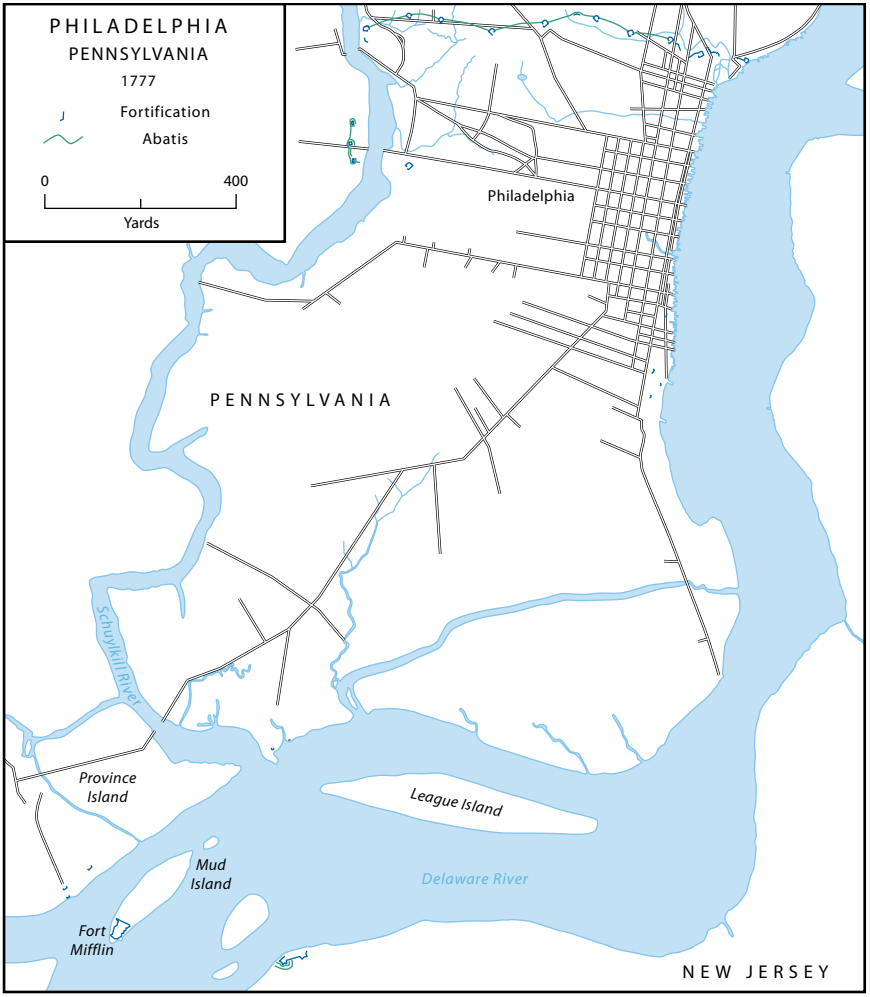
THE PHILADELPHIA CAMPAIGN, 1777

In the spring of 1777, American leaders harbored little doubt that Philadelphia would be Lt. Gen. Sir William Howe's objective. European generals of the time prioritized the capture of key cities as much as, or perhaps more than, the destruction or capture of armies. With a population that historians estimate numbered between 20,000 and 30,000, the city ranked as the largest in British North America. It also served as the capital of Pennsylvania and the seat of the Continental Congress, both of which General George Washington had to protect. More important to Washington, the city had long been a manufacturing center for all manner of products that by 1777 included military stores. Should the British threaten Philadelphia, he recommended leaving them "nothing but the bare walls."

STRATEGIC SETTING

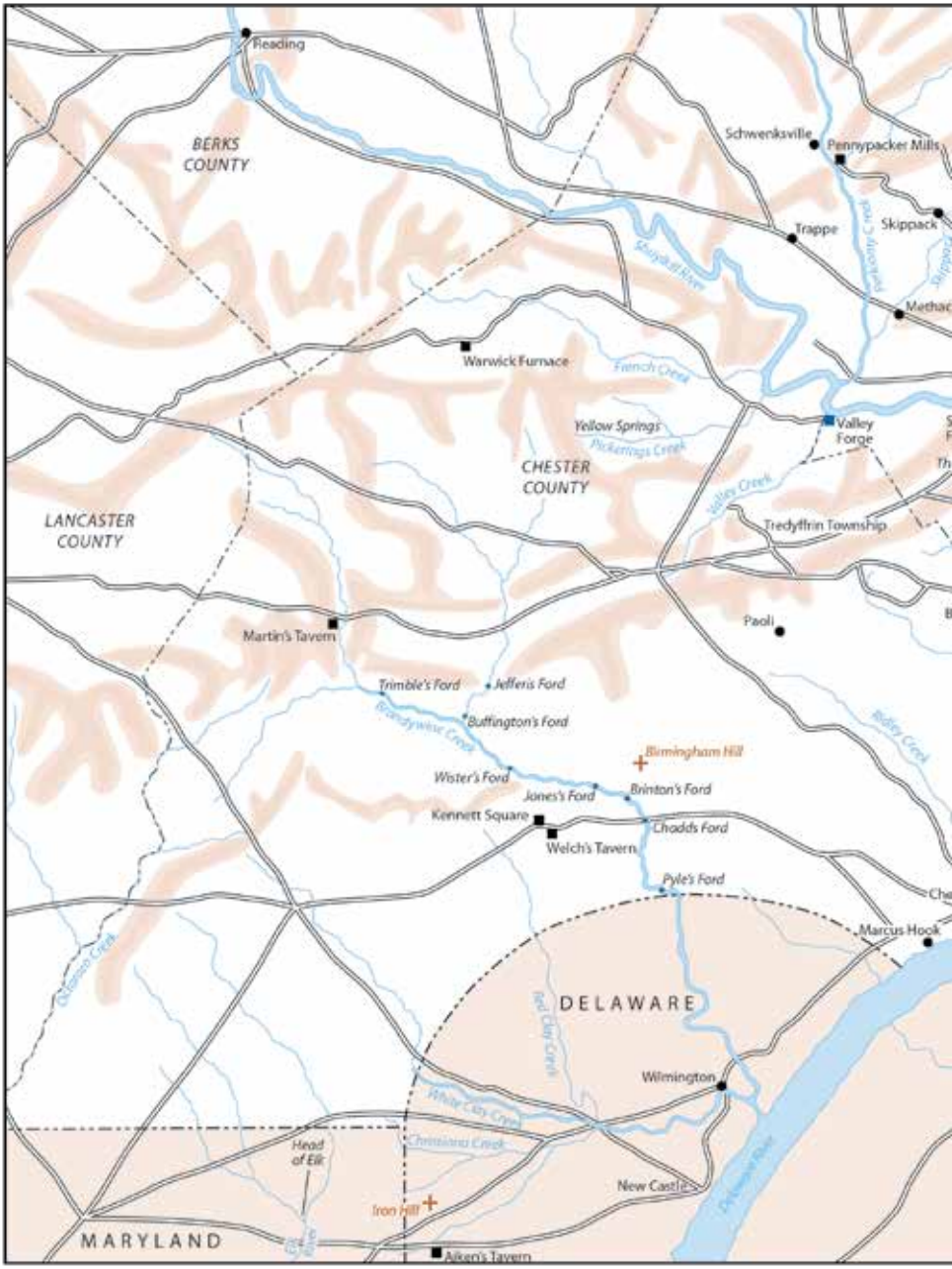
In October 1682, William Penn founded Philadelphia on a plain between the Schuylkill and Delaware Rivers (*Map 1*). Both rivers were relatively shallow with shifting bars that, along with the region's typically severe weather and seasonally contrary winds, made navigation tricky. By 1775, the city stretched for a little more than a mile on the west bank of the Delaware. The southern portion of the peninsula on which the city stood consisted of mostly low, marshy land. Six miles to the north of the city, an ancient bed of Wissahickon schist caused the terrain to rise abruptly to a plateau roughly 200 feet in elevation. There, pacifist religious groups from Central Europe founded the settlement of Germantown in 1683. Numerous streams cut through the plateau, breaking up the schist into crumbly fieldstone and creating broken ground slashed by numerous gullies and ravines. The largest of these streams, Wissahickon Creek, emptied into the Schuylkill. Beyond Philadelphia, an arc of rolling hills and ridges extended nearly 50 miles, consisting of deep fertile soil enriched by large veins of iron ore and limestone. The region's creeks and rivers provided power to grist mills before their waters drained into the Delaware.

Over the better part of a century, Europeans had established settlements that comprised roughly a quarter of Pennsylvania's territory and most of its population. (*See Map 2*). Members of pacifist sects from the British Isles and German states had flocked to Pennsylvania since its founding, taking over Lenni Lenape and Susquehannock lands left vacant by disease and intertribal warfare. They flourished in the absence of an immediate adversary. After 1730, large numbers of nonpacifists migrated to the province, doubling or even tripling Philadelphia's population, and pushing

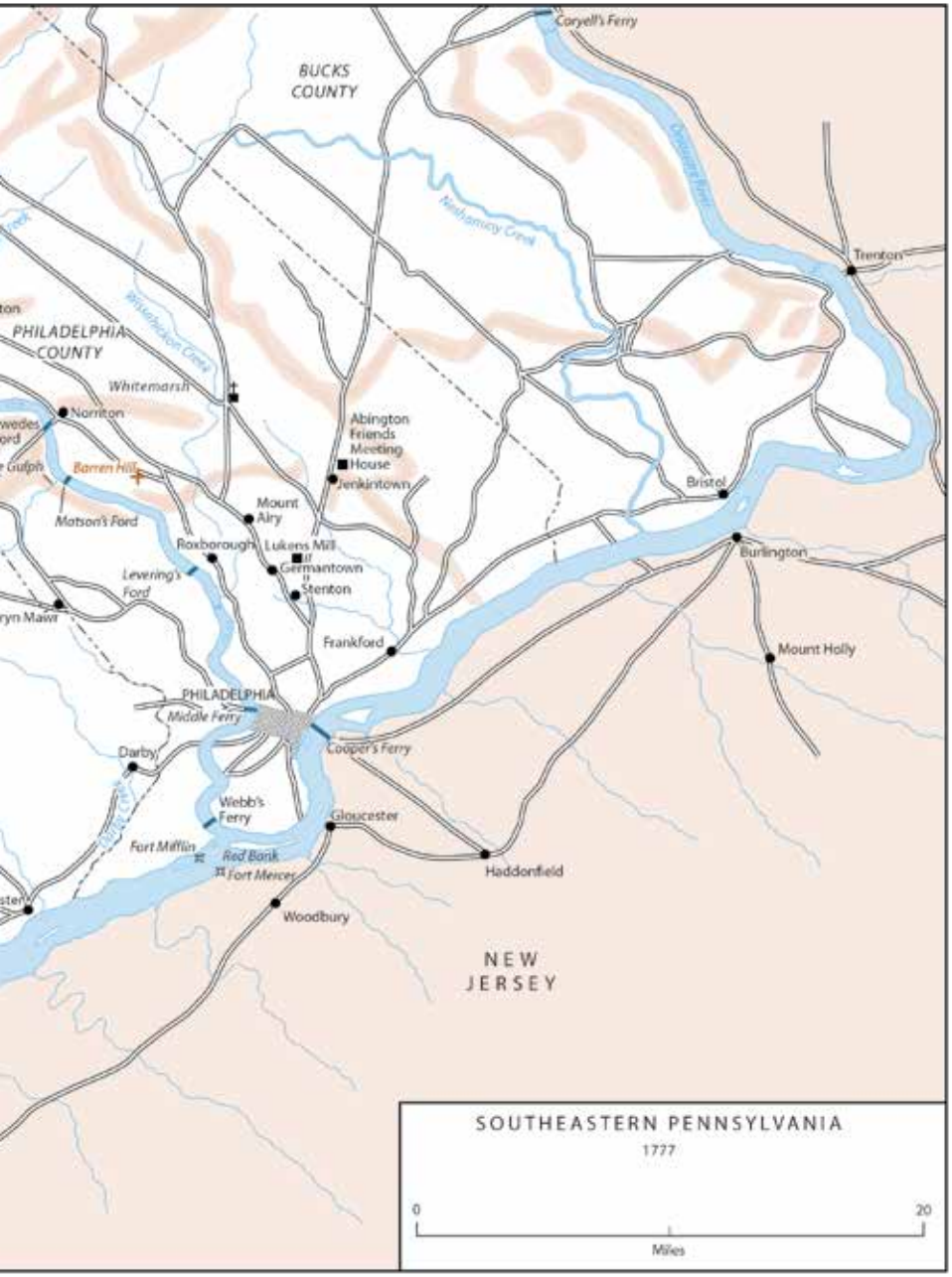


Map 1

into the interior. By 1775, Pennsylvania's population stood at roughly 302,000. Most claimed British ancestry, followed by Germans, French, Central Europeans, and a small number of surviving native peoples. Between 2,000 and 4,000 people of African descent lived in the area, about 1,844 of whom in southeastern Pennsylvania were enslaved. Workers refined lime, smelted iron, and made finished products, including the famed long rifle. Pennsylvania farmers


Reading
BERKS COUNTY
Schwenksville
Pennypacker Mills
Trappe
Skippack
Perkiomen Creek
Schuylkill River
Methac
Warwick Furnace
French Creek
Yellow Springs
Pickerings Creek
Valley Forge
CHESTER COUNTY
Valley Creek
LANCASTER COUNTY
Tredyffrin Township
Paoli
Martin's Tavern
Trimble's Ford
Jeffers Ford
Buffington's Ford
Brandywine Creek
Ridley Creek
Birmingham Hill
Wister's Ford
Jones's Ford
Brinton's Ford
Kennett Square
Chadds Ford
Welch's Tavern
Pyle's Ford
Marcus Hook
Octoraro Creek
DELAWARE
Red Clay Creek
Wilmington
White Clay Creek
Christiana Creek
Head of Elk
New Castle
Iron Hill
Delaware River
MARYLAND
Aiken's Tavern

Map 2


Coryell's Ferry
BUCKS
COUNTY
Neshaminy Creek
Delaware River
Trenton
PHILADELPHIA
COUNTY
Wissahickon Creek
Whitemarsh
Norriton
Abington
Friends
Meeting
House
Jenkintown
Barren Hill
Matson's Ford
Mount
Airy
Roxborough
Lukens Mill
Germantown
Stenton
Levering's
Ford
Bristol
Burlington
Frankford
Mount Holly
PHILADELPHIA
Middle Ferry
Cooper's Ferry
Darby
Webb's
Ferry
Gloucester
Fort Mifflin
Red Bank
Fort Mercer
Haddonfield
Woodbury
NEW
JERSEY
SOUTHEASTERN PENNSYLVANIA
1777
0
20
Miles

harvested crops that contributed to Pennsylvania's claim, along with Maryland and Virginia, to the title of the Bread Colonies, shipping grain to other parts of North America and to Europe as well as to other British possessions. An interlocking network of roads linked these settlements to Philadelphia. Philadelphia's strategic importance stemmed as much from its position relative to its productive hinterland as it did from its status as a manufacturing hub, commercial center, political capital, and port.

Pennsylvania Forces

If Pennsylvania's natural resources were robust, its defenses were less so. Although they no longer enjoyed a plurality, pacifists made their convictions felt on matters of defense. The colony's population of skilled gunsmiths mostly made hunting arms, not martial weapons like muskets. Many volunteered for military service, but Pennsylvania did not have laws that required its residents to possess arms or train in their use. Unlike the other British colonies, Pennsylvania lacked a militia law before 17 March 1777. The colony's leaders instead relied on volunteer provincial soldiers and the part-time Military Association founded by Benjamin Franklin and others in 1747. Associators—the name given to those who served in the organization—obtained equipment at personal expense, or through funds allocated by the Assembly, Pennsylvania's legislature. Between 1774 and 1775, Associators organized foot battalions in all twelve counties. Philadelphia Associators established the Light Horse Troop and expanded existing foot and artillery units. The Association formed into two brigades in December 1776. The state appointed provincial veterans John Armstrong and James Potter, and Associators John Cadwalader and Samuel Meredith, as brigadier generals. Following the resignation of Meredith and the reassignment of Cadwalader to organize and train the Maryland Militia, the state promoted Armstrong to major general, leaving Potter as the sole brigadier. Associators also served on Committees of Safety, procured weapons and materiel, and filled contracts to build and improve local defenses and to develop a state navy.

Pennsylvania also provided personnel for Continental regiments between June 1775 and April 1777. The state manned nine of the rifle companies that marched to Boston in 1775. By 1777, Pennsylvania had exceeded its initial quota, wholly or partly raising eighteen regiments for Continental service. That April, 2,562 soldiers manned sixteen Pennsylvania regiments. This figure does not include state regiments in Continental service, or the two nonstate regiments for which Pennsylvania provided soldiers.

Pennsylvania state forces operated on land and sea. Units included Capt. Thomas Procter's company, Col. Samuel Miles's Pennsylvania State Regiment of two rifle battalions, and Maj. Samuel J. Atlee's State Musketry Battalion, which had a tactical relationship with Miles's command and comprised some of the state's ground forces. In 1776, the Pennsylvania State Navy numbered 2,133 sailors and marines across twenty-seven vessels. Such measures, especially from a volunteer force, show that many Pennsylvanians—including some former pacifists—were ardent supporters of armed revolution.

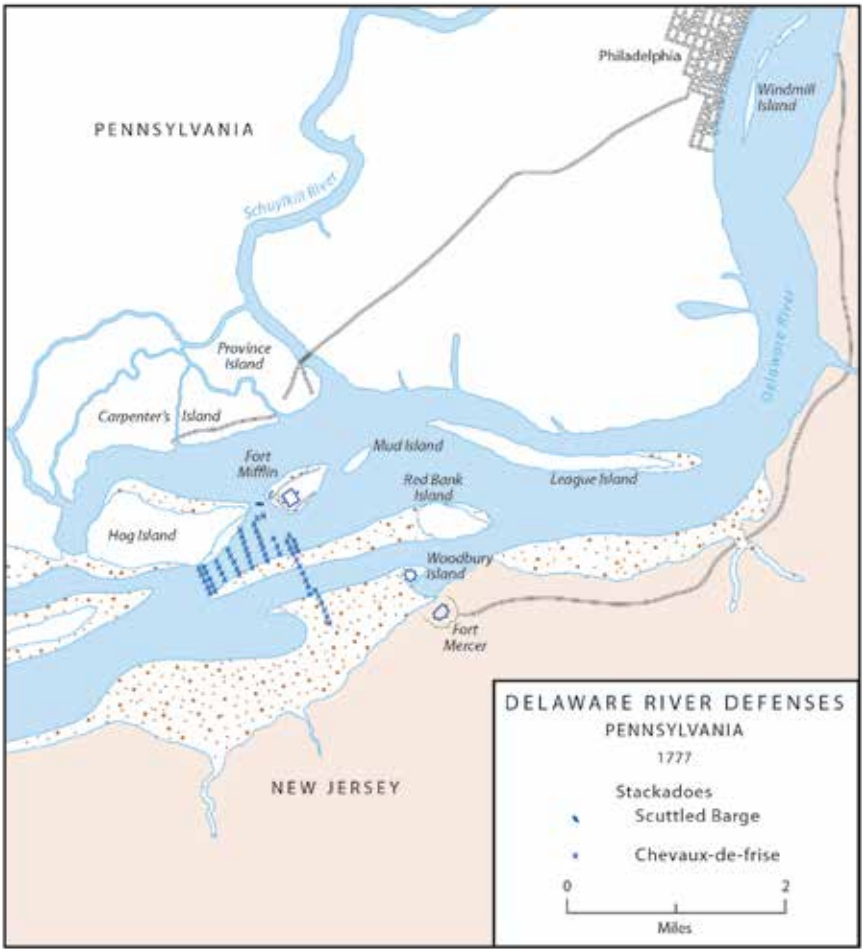
The arduous campaigns of 1776 took a heavy toll on the voluntary Association, necessitating its replacement. In the spring of 1777, approximately 12,600 service-age males lived in the city of Philadelphia and in the neighboring Chester and Berks counties.[1] The hardships of service had ruined the health of many surviving veterans. Others felt that they had done their part for the cause while their neighbors remained safe at home. To mitigate the inequity of service and to exploit the resources provided by its large population, Pennsylvania passed a true militia law on 17 March 1777. As in other states, the new law mandated military service for all adult

1. Philadelphia had roughly 3,600 militia in the city in January. In April, Berks and Chester Counties submitted returns showing 4,000 and 5,000 eligible males, respectively. Bucks and Lancaster County lieutenants had problems getting returns in part because of the reluctance of inhabitants to enroll in the militia for religious and other reasons. Assuming that Philadelphia's figures were only city militia, the average number is 4,200. Multiplied by the eleven counties and the City of Philadelphia, this number is 50,400. However, given that the western counties had much lower populations, and that not all males were capable of service, much less willing to serve, the number is probably much lower.

White males aged eighteen to fifty-three, with one important caveat: it divided each company of each regiment into eight classes. The law empowered the president of Pennsylvania to direct a county lieutenant to muster militia regiments by class and transfer the class to their field commanders on a rotating basis. Although the authors of the new law intended it to distribute evenly the burden of defense without sapping the labor force, the law proved inefficient, difficult to enforce, and unjust to those who answered the call. Moreover, Pennsylvania lacked an institutionalized militia and generational service, having faced few external threats before the Seven Years' War in October 1755. Conscripted militia soldiers, many of whom had little or no military experience, joined veteran Associators, Provincials, and Continental Army veterans in the ranks of Pennsylvania's militia regiments. They would have less than six months to coalesce into a fighting force.

Associators had maintained several forts on the Delaware since 1747. Most were obsolete or in ruins by the early 1770s. At the colony's request, Capt. John Montresor of the Royal Engineers arrived in Philadelphia in 1771 to design a new fort on Mud Island, near the mouth of the Schuylkill River. The site was little more than a sandbar. Workers sank pilings into the island to support the stone ramparts and buildings. The Pennsylvania Assembly directed Montresor to reduce the size of the fort to save money. Further construction complications and Montresor's departure halted work by 1774. Following the Battle of Lexington, work on the fort recommenced. The Committee of Safety authorized the construction of staked underwater obstacles called *chevaux-de-frise*, a chain, log booms, floating batteries, and a small fleet. In October 1775, it assigned Captain Procter's company to garrison the fort.

In April 1776, British Capt. Andrew Snape Hamond's small flotilla reconnoitered the Delaware River, and on 8 May he put Pennsylvania's defenses to its first test (*Map 3*). After the British commander threatened to open fire on the town of New Castle, Delaware, Commodore Thomas Read sailed downriver with an amphibious force consisting of ships of the Continental and Pennsylvania Navies, Procter's Company, Capt. Benjamin Loxley's



Map 3

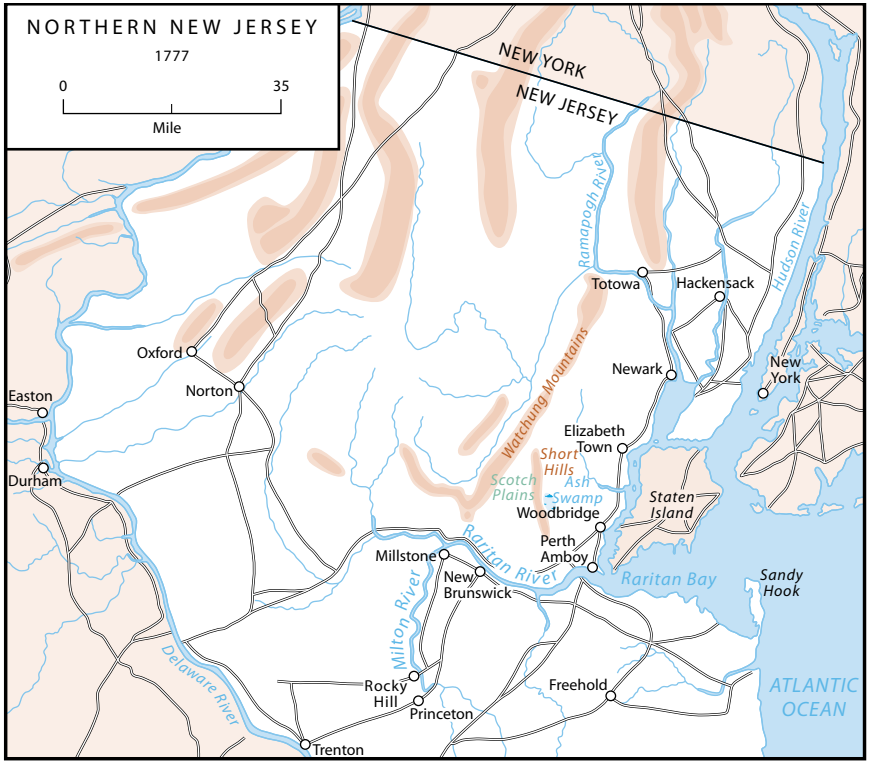
Company, Philadelphia Artillery, and other Associators. Colonel Miles marched 100 riflemen of his regiment to Marcus Hook, a river town near the Delaware state line where five companies of Delaware troops joined him to contest a landing. Fighting in shallow water, or from behind the safety of the Delaware river chain, Read's flotilla engaged Hamond for about two hours at long range. One of Read's ships captured *Betsey*, one of Hamond's tenders, and forced his flagship, HMS *Roebuck*, aground near Carney's Point, New Jersey. Read's actions prevented Hamond from penetrating or

reconnoitering Philadelphia's harbor defenses, and the *Roebuck*'s grounding demonstrated the challenge facing even moderately sized ships operating in the shallow river.

Although indecisive as a naval action, the Battle of the Delaware had important repercussions. The action galvanized the Pennsylvania Committee of Safety to further augment the state's existing river defenses. Congress authorized Pennsylvania to buy land to build forts on Tinicum Island in Darby Creek, about 2 miles downriver from the mouth of the Schuylkill, on Woodbury Island due south of its mouth, as well as at Billingsport and Red Bank, New Jersey, opposite Mud Island. Despite these steps, the cost of maintaining the forts against the forces of nature remained high.

In May 1777, General Washington commanded the Main Continental Army in northern New Jersey as it monitored Howe's British army, its German allies, and loyalist auxiliaries in and around New York City (*Map 4*).[2] British and German troops at Newport, Rhode Island, maintained a naval base and potentially threatened eastern New England, while another army in Canada threatened the northern frontier. A fleet under the command of Howe's older brother, V. Adm. Richard, 4th Viscount Howe, would render any attack on New York City or Newport disastrous for the American cause, as the Continental and state navies lacked the tonnage necessary to engage the *Royal Navy*. The American armies therefore assumed a defensive posture to counter possible British offensives. The Main Army's primary strategic imperative lay in containing the enemy at its bases at New York and Newport, maintaining communication between the army departments, and securing United States territory. Washington would use this army to fight a series of holding actions against General Howe's offensives, while supporting the army defending northern New York. From its position, the Main Army protected the lines of communications across New Jersey and provided security against supply depots in the Hudson Highlands and production facilities in Pennsylvania, Maryland, and Virginia. The Army also served

2. Howe, as commander in chief, held the local rank of general.



Map 4

as the instrument of force to support the goal of an alliance with France. The Continental Army needed to show that it could win a decisive victory, or at least that it could hold its own over the course of a campaign.

A planter by birthright, George Washington had pursued a military avocation from a young age. His army suffered reverses in Canada, New York, and Rhode Island in 1776, but had cleared the enemy from Boston and reversed British gains in New Jersey with victories at Trenton and Princeton. Although he could replace casualties more easily than the British could, Washington understood that the new United States lacked the resources and population for a true war of attrition. He pursued a strategy to wear down the British by attacks on isolated posts and supply lines while preserving his force and the revolution that it represented. Although calculated to

preserve his army, Washington's strategy drew criticism from his opponents in Congress and the army.

On 14 March 1777, Congress finalized a reorganization that authorized 116 regiments, several new staff officers, cavalry, and engineers. Washington commanded five divisions under Maj. Gens. Nathanael Greene; William Alexander, Lord Stirling; Adam Stephen; Benjamin Lincoln; and John Sullivan. Ten infantry brigades, containing thirty-eight foot regiments, under Richard Humpton, Thomas Conway, Anthony Wayne, William Smallwood, Philippe Hubert Preudhomme de Borre, William Maxwell, Peter Muhlenberg, George Weedon, William Woodford, and Charles Scott supplied the main punch. The size and composition of divisions and brigades was neither fixed nor consistent. Infantry regiments consisted of a headquarters and staff, and eight companies each containing a captain, four lieutenants, eight noncommissioned officers, two drummers, and seventy-six privates that could fight as two platoons. The new organization also authorized sixteen Additional Regiments, composed of companies that the states raised in excess of their quotas. Congress and the states raised 7,816 recruits who joined veteran officers and noncommissioned officers, bringing the army's strength to 673 officers, 708 sergeants, 241 drummers, and 8,378 rank and file. Administrative and logistical reforms created a more flexible force.

The commander of the artillery was Brig. Gen. Henry Knox, whose military service dated to 1772, when the Massachusetts Militia commissioned him as a lieutenant in the Grenadier Guards. Knox's force consisted of the 1st, 2d, and 3d Maryland Continental Artillery Companies, Col. John Lamb's and Col. John Crane's Continental Artillery Regiments, and Colonel Procter's Pennsylvania State Artillery Regiment, which the state had expanded from his company. Artillery regiments were administrative units that usually contained a headquarters and staff, and twelve companies that the commander or higher headquarters could deploy as needed, each with up to six guns. At Knox's request, Congress centralized the Ordnance Department and appointed Lt. Col. Benjamin Flower the Commissary General of Military Stores to supervise the

construction of magazines to store ammunition and gunpowder and the fabrication of artillery and small arms.

Continental mounted units consisted of the 1st through 4th Continental Light Dragoons, each with a regimental headquarters and six troops. A corps of North Carolina Light Dragoons and Maj. Nicholas Dietrich, Baron de Ottendorf's Corps, which had both mounted and dismounted companies, rounded out the force. Washington intended dragoons to provide reconnaissance and screening and usually detached individual regiments and troops as needed, but during the upcoming campaign would also employ them as an independent body.

The army spent the winter and spring drilling, and despite ongoing shortages of nearly every item, it grew more tactically proficient and confident. The upcoming campaign would be the first real test of the reforms.

Upward of 2,000 militia from New Jersey, Pennsylvania, Maryland, and other nearby states provided pickets, patrols, and additional support services in New Jersey before April, when the troops needed to be on their farms. The Maryland Militia, still in a disorganized state, nevertheless assembled several hundred soldiers. The New Jersey Militia mustered two brigades under the command of Maj. Gen. Philemon Dickinson. As in Pennsylvania, New Jersey Governor William Livingston could call up his militia by class, but the law's shortcomings hamstrung his county lieutenants. Pennsylvania President Thomas Wharton ordered his state's militia into service in New Jersey, with additional troops reporting to Chester, Bristol, and the river forts. Members of two of Pennsylvania's largest religious sects, the Society of Friends (or Quakers) and the Mennonites, refused service outright. Others refused to render military service to show their defiance of Pennsylvania's arcane class system. Militia service took laborers away from farming and manufacturing. The conversion of the economy to arms production drove up prices in an already cash-poor market, a result of the decades long British mercantile policy that kept hard currency offshore. The adverse impact became apparent during the summer of 1777. Many of those who reported from Pennsylvania lacked arms, tents, and equipment,

having transferred them to the Continental Army at the end of previous call-ups. Almost half of those who reported to the Delaware muster were paid substitutes, and county lieutenants did not have funds to procure arms, ammunition, or blankets for them. Yet even with such challenges, the three states mustered impressive numbers.

In addition to their role as a force in being, militia in coastal areas performed a vital function in a time of invasion—that of denying forage to the enemy. Farmers grazed cattle along the shore and islands of the Delaware. In late April, committees in Pennsylvania prepared plans to remove livestock, wagons, grain, and other supplies should the enemy enter the state, and assigned local militia units to the task.

British Plans

General Howe commanded the British army in and around New York City. The total British forces available to him, excluding the New York garrison under Maj. Gen. Sir Henry Clinton, numbered 16,445. Maj. Gen. Charles, 2nd Earl Cornwallis, commanded a division consisting of five brigades under Brig. Gens. John Vaughan; Charles Grey; James Grant; James Agnew; and Edward Mathew. Twenty-one regiments of foot formed the army's backbone. Howe detached their light and grenadier companies as the *1st* and *2d Grenadier Battalions*, and the *1st* and *2d Light Infantry Battalions*. In addition to the aforementioned brigades, the *Brigade of Guards* and the *71st Highland Regiment*, each with two battalions, and the *42d Royal Highland Regiment*, which maintained a higher strength than the foot regiments, rounded out Howe's infantry. Two mounted regiments, the *16th* and *17th Light Dragoons*, provided reconnaissance and occasionally fought dismounted. The *Royal Artillery Regiment* organized as a separate service under the Board of Ordnance and consisted of four battalions. Col. James Pattison commanded the *4th Battalion, Royal Artillery Regiment*, at New York, consisting of eight companies with a total of 928 artillerists from which he drew detachments that served in the field. Capt. James Wemyss's loyalist *Queen's Rangers*, and *Maj. Patrick*

Ferguson's Corps, fought as light infantry and partisans. Long-serving volunteers, who for the most part came from the surplus laboring and artisan population of Great Britain and its allies, comprised Howe's army. Well-trained and uniformly equipped, the British infantry used the same basic tactics as the Continental infantry but emphasized bayonet fighting over firepower. Except for the locally recruited loyalist units, Howe had to request replacements from Great Britain, or transfer soldiers from homeward-bound regiments. During the campaign, Howe's army shrank from battlefield losses, disease, and desertion.

Lt. Gen. Leopold Philip von Heister commanded 5,268 German troops at New York. Lt. Gen. Wilhelm Baron von Knyphausen commanded a division comprised of *Maj. Gen. Johann Daniel von Stirn's Brigade*, consisting of the regiments *von Donop*, *Mirbach*, *Lieb Prinz*, artillery, a jaeger (rifle) battalion under Lt. Col. Ludwig Johann Adolf von Wurmb, and a battalion consisting of the remnants of *Rall's Brigade*, which had surrendered at Trenton; *Col. Carl von Donop's Grenadier Brigade* consisting of the grenadier battalions *Koehler, Lengerke*, *Linsing*, and *Minnigerode*; and a contingent from Ansbach containing two foot battalions, a jaeger battalion, and artillery. Heister's infantry trained from a manual like that of the British army, attained equal proficiency, and carried muskets of a similar bore, facilitating integrated tactical formations and logistics. Jaegers carried short rifles and hunting swords. Like the British, German commanders faced a long wait for replacements.

Sir William Howe had fought in North America during the Seven Years' War and distinguished himself in command of light infantry at Québec on 13 September 1759. Howe contributed to the light infantry manual, written in manuscript form in 1774. After commanding British troops during three bloody assaults at Bunker Hill, he avoided costly frontal assaults and chose to outmaneuver Washington. In 1776, he captured New York City, earning a knighthood. Seeking ground of his choosing, Howe intended to capture or destroy the Main Army before proceeding on to Philadelphia.

The British offensives General Howe and Maj. Gen. John Burgoyne planned for 1777 were more ambitious than those of the previous year, but the concept remained the same: to cut lines of communications between the populous New England and middle states, while sustaining naval stations at New York and Newport. Consequently, Howe submitted a plan to Secretary of State for the Colonies, Lord George Germain, on 30 November 1776 during Washington's retreat across New Jersey. Infamous for his dismissal for cowardice following the Battle of Minden during the Seven Years' War, Germain was nevertheless a former lieutenant general who understood military affairs, and who wisely left operational planning to the military. Howe's proposal called for Clinton to march from Newport and capture Boston with 10,000 troops while he pushed north to Albany with another 10,000 troops, leaving 5,000 to garrison New York City, and 8,000 to tie down Washington's Main Army in New Jersey. After the two offensives had achieved their objectives, the British force in New Jersey would destroy the Main Army and conquer the south during the winter. Howe asked Germain for another 15,000 troops to accomplish this. He made no provision to cooperate with an offensive from Canada, which he thought could not reach Albany before mid-September anyway.

General Howe adjusted his design during the winter as circumstances changed. Following Clinton's capture of Newport, he modified his plan on 20 December 1776, increasing the size of the force he needed to destroy the Main Army. Washington's victories at Trenton and Princeton and his subsequent withdrawal from most of New Jersey forced Howe to further alter his plan on 20 January 1777. He now called for a two-column attack on Philadelphia—one by sea and another across New Jersey—that would destroy the Main Army en route. Howe did not mention a juncture with the Canadian army but expected to keep his forces between Washington and the Hudson.

Unbeknownst to Howe, Burgoyne already had met Germain in London to propose an offensive from Canada. Like Howe, Burgoyne wanted an independent operation. On 13 December

1776, King George III approved Burgoyne's plan for an offensive south from Canada, a design the general refined in mid-February 1777 at about the time that news of Trenton and Princeton arrived in London. The king's advisers assigned Burgoyne to command the northern force on 25 February 1777.

The two plans subsequently diverged. Howe's two revisions arrived in late February. Both the king and Germain approved Howe's strike against Philadelphia by land and by sea, but Germain notified him not to expect the 15,000 reinforcements he requested. Neither of these plans considered a juncture of the two armies essential. Germain, by contrast, emphasized to Sir Guy Carleton in Canada on 26 March that Howe and Burgoyne should combine their forces somewhere near the headwaters of the Hudson after Howe had completed his operation and that he would instruct Howe to execute the juncture, whereupon Howe would take command. On 2 April, Howe wrote to Germain, reporting that he had modified his plan one more time. He would now move his entire force by sea, eliminating the strike across New Jersey. He conveyed his plans to Carleton and Burgoyne on 5 April. Two months later, on 5 June, Howe received instructions from Germain to move to Albany to support Burgoyne after taking Philadelphia, although Howe later claimed that he received no direct order to do so. In spite of these instructions, Howe replied on 16 July that he would sail to Philadelphia. Attacking Washington in that direction would draw him south, away from Burgoyne. If Washington marched against Burgoyne, Howe could reinforce Clinton at New York. By then, Germain could do little. A week later, Howe put to sea.

OPERATIONS

In May 1777, Washington commanded 8,378 rank and file from his headquarters at Morristown, New Jersey. The Army's position behind the Watchung Mountains afforded security from a surprise attack from the British in New York and also protected the roads into Pennsylvania and New York. Patrols could monitor enemy movements and shipping there, in the lower Hudson River, and in New York Harbor. The foothills of the Watchung Mountains consisted of rolling terrain, mostly mixed forest and woodland in 1777. These hills gave way to a flat coastal plain south of a line running roughly from Brunswick to Trenton. Soldiers operating in the region experienced seasonally high temperatures and frequent rainstorms. The wet weather kept water levels at fords and ferries relatively deep, but passable. General Howe and Washington were to spend the month of June maneuvering on this ground as Howe tried to offer battle.

On 30 May, Col. Tench Tilghman of Washington's staff forwarded to General Sullivan at Princeton intelligence that General Howe planned a diversion against the Main Army. Washington suspected that Howe intended to hit his force at Middlebrook, or to outflank Sullivan's division and cross the Delaware into Pennsylvania. While soldiers beefed up the Watchung lines, Washington formed an advanced body of about 200 troopers from his light dragoon regiments to remain in motion, observe enemy shipping, and shadow the enemy until the Main Army arrived. President Wharton ordered militia to the fords on the upper Delaware and the Chester waterfront. Maj. Gen. Benedict Arnold coordinated their deployment and supply with Sullivan.

On 13 June, General Howe marched 17,000 soldiers from Brunswick to Middlebrook, hoping to draw out Washington. Howe's column included boats loaded on wagons, likely hoping to trick Washington into thinking that he intended to cross into Pennsylvania. Washington refused to take the bait. He understood the need to defend the passes through the Hudson Highlands, but he accepted the risk and reinforced his army in New Jersey with troops from Peekskill, leaving only a token force along the Hudson. The situation in the north was becoming critical as Burgoyne's army neared Fort Ticonderoga, and Maj. Gen. Philip Schuyler of the Northern Department pressed for reinforcements. However, Washington had arrayed his force for all eventualities. Should Howe attack his army, Washington's position around Morristown could prove a tough nut to crack. Should the redcoats sail up the Hudson, he could easily reinforce the Highlands. In the event of a British strike against Philadelphia, Arnold and Sullivan could mount a robust defense on the Delaware.

General Sullivan commanded 1,607 soldiers from his headquarters at Princeton. Born in 1740 in New Hampshire, Sullivan had been a major in the militia and had represented his state in the Second Continental Congress. On 14–15 December 1774, he and John Langdon commanded a party that seized Fort William and Mary at Portsmouth, New Hampshire. Commissioned a brigadier general in 1775, he had marched reinforcements to Winter Hill outside Boston. He took command of the army in Canada at St. John's in 1776 and retreated south to Fort Ticonderoga. Exchanged after his capture at Long Island, Sullivan commanded a wing of the army at Trenton and Princeton. Now, at the British advance, he first fell back with his division toward Rocky Hill, about 5 miles southwest of Somerset Courthouse, where he encamped, leaving a detachment of Col. David Hall's Delaware Regiment and some New Jersey militia as a screen. If Howe advanced on the Delaware fords, the Delaware troops and militia could provide sufficient warning. Sullivan could then make a stand that the Main Army might fall in on their rear. Should Howe make it past Sullivan,

General Arnold stood ready to oppose a crossing with 2,000 Pennsylvania militia.

Stymied by Sullivan's march to Somerset, General Howe hesitated. Elements of the New Jersey militia turned out in force, hemming in his advance. The two armies skirmished until 18 June without a general engagement. On 19 June, Howe broke camp and marched his army back to Brunswick, shadowed by advance elements of Continentals and militia. Howe's soldiers destroyed most of the houses within 5 miles and drove off much of the livestock.

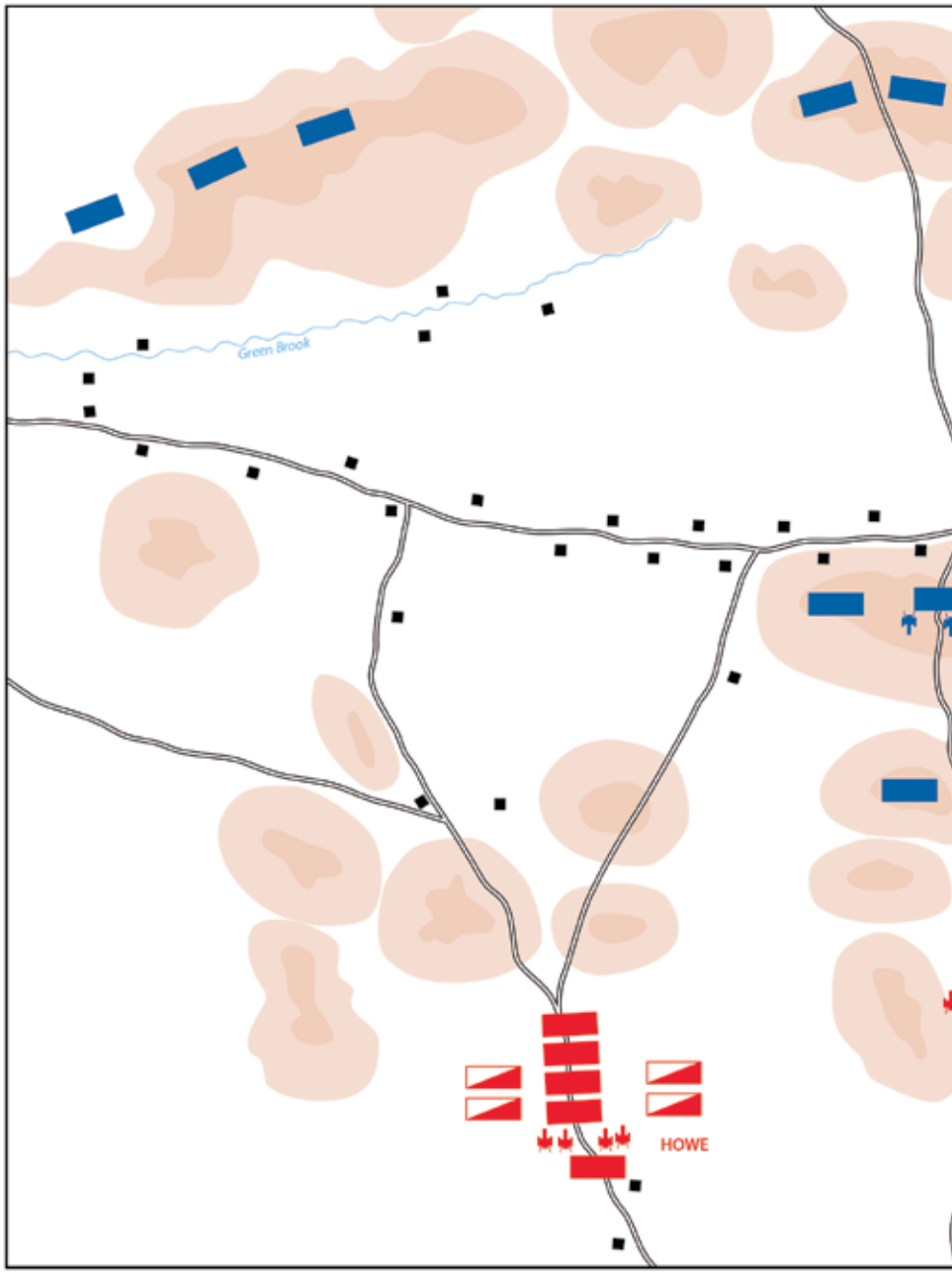
On 20 June, Washington wrote to Brig. Gens. Alexander McDougall and John Glover in the Highlands to be on the alert for a possible movement up the Hudson. With the British fleet anchored at Staten Island, Washington concluded that General Howe's demonstration had been a ruse. Howe's withdrawal soon justified Washington's decision, for instead of boarding the ships and sailing up the Hudson River, the redcoats and their allies tarried on the Jersey side. In the early hours of 22 June, under rainy conditions, the enemy evacuated Brunswick before dawn, closely pursued by elements of Wayne's Brigade, including a detachment of Col. Daniel Morgan's newly formed Rifle Corps, with Sullivan's division and the Jersey militia in support. At about sunrise, the redcoats and their German allies crossed to the east side of the Raritan River. The rearguard took up position on high ground.

Wayne now stepped to the fore. A member of the Pennsylvania Committee of Safety, Wayne commanded an Associator battalion in 1775 before the state commissioned him to command one of its Continental regiments. Congress promoted him to brigadier general in February 1776. Wayne now ordered three guns to harass the British rear guard, driving the enemy from the height. The Pennsylvanian pursued, while Sullivan took possession of Brunswick. Howe took command of the rear guard and answered with two field pieces, firing into the advancing riflemen. Wayne maintained contact, closing to musket shot, but British bayonets drove back his soldiers to the protection of their guns. At his embarkation point at Perth Amboy, Howe positioned heavy

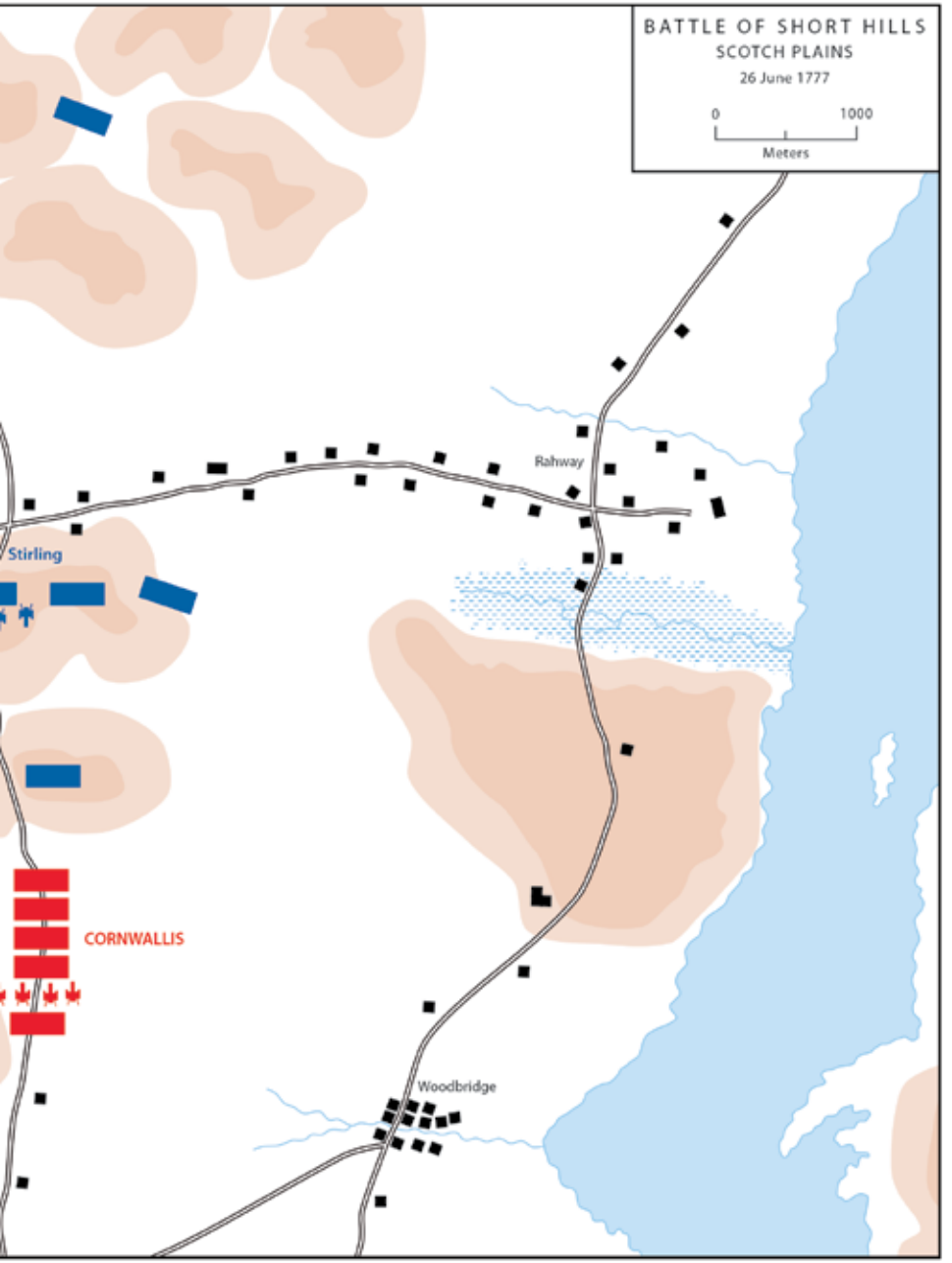
artillery, keeping the revolutionaries at bay. Washington wisely declined battle. As a precaution, he directed General Israel Putnam at Peekskill to retain Glover's Brigade, which he earlier had ordered to the Northern Department, and he ordered Stirling to monitor and harass British patrols, with Sullivan in reserve.

Stirling advanced through a pass in the Watchung Mountains and occupied a forward position at a place known as the Short Hills near the intersection of the road to Rahway, 4 miles to his east (*Map 5*). His division of about 4,000 soldiers consisted of Conway's and Maxwell's Brigades. Two attached artillery detachments from Capt. Bernard Romans's Independent Company and Capt. Benjamin Eustis's Company, 3d Continental Artillery, manned French tubes. Morgan's and Ottendorf's Corps provided a light infantry screen. Born in New York in 1727, Stirling had served as an aide-de-camp to General William Shirley during the Seven Years' War. In 1759, a Scottish court had validated his claim to the Earldom of Stirling, but a British court rejected it. Commissioned a colonel in the New Jersey militia, Stirling commanded the holding action at the Battle of Long Island during which the Maryland Line distinguished itself before he surrendered to General Heister. He had returned through a prisoner exchange. Stirling now placed his troops in three lines, with Morgan's and Ottendorf's Corps arrayed as skirmishers in Ash Swamp, Conway's Brigade on a hill to the west, and Maxwell's Brigade on another roughly to the northeast.

At 0100 on 26 June, while General Howe accompanied General Vaughan's column marching west toward New Brunswick, then north toward Scotch Plains, Cornwallis led between 8,000 and 10,000 north toward Woodbridge, hoping to cut off Stirling. One of the few general officers with a formal military education, the 39-year-old Cornwallis had spent more than half his life in uniform. Promoted to major general in 1775, he accompanied Clinton to Charleston in 1776, fought Stirling's rear guard at Long Island, and twice thereafter failed to trap Washington at Fort Lee and at the Second Battle of Trenton. At 0600, Morgan's and Ottendorf's skirmishers engaged Cornwallis's light infantry in Ash Swamp, keeping up a running fire as they fell back on Conway's line. Gunners manning three field



Map 5


BATTLE OF SHORT HILLS
SCOTCH PLAINS
26 June 1777
0
1000
Meters
Rahway
Stirling
CORNWALLIS
Woodbridge

pieces peppered the British column with shot until it formed back into line. Conway then fell back to a larger hill about 1,000 yards to the northwest as Maxwell's Brigade wheeled to the right to cover his withdrawal. Cornwallis's column then formed into line and assaulted the new position, harassed by Stirling's artillery until it came into range of his muskets. Stirling retreated to the Main Army after a brief but intense fight.

The two enemy columns converged around 0900 and continued the march, harassed by Stirling's light troops. Howe reckoned Washington's position too strong to attack. The British and Germans camped at Westfield then swept through Rahway the next day, burning, pillaging, and driving off livestock before returning to Perth Amboy on 28 June. Washington screened the British retreat with Scott's brigade but otherwise stood fast in case Howe chose to move against the Highlands. On 30 June, Howe crossed over to Staten Island. His withdrawal provided Washington an opportunity to release the New Jersey and Pennsylvania militia to help bring in the harvest in their respective states and to distribute food to the recently raided New Jersey towns. Pennsylvania drew up plans to remove flour and grain out of the path of a possible invasion, "to provide housing for poor people forced to leave Philadelphia," and to provide relief to the needy families of militia in service.

Washington's actions had frustrated General Howe's plan to draw him out in a decisive action. The combined maneuvering of Sullivan's and Stirling's divisions had prevented Howe from attacking and destroying the Main Army or outflanking it and crossing into Pennsylvania. The commander in chief now redirected his attention to operations in the north, where the campaign still hung in the balance, with two enemy columns threatening Forts Ticonderoga and Schuyler respectively. Suspecting that Howe might yet sail up the Hudson to support Burgoyne, Washington on 8 July ordered Arnold to report to General Schuyler, and for Sullivan to march his division north. The same day, Congress ordered Brig. Gen. Francis Nash to march his newly formed North Carolina Continental Brigade from Philadelphia to Billingsport.

Without having destroyed Washington's Army, General Howe now embarked on the capture of Philadelphia. In early July, he ordered 18,000 troops aboard transports at Staten Island. The complicated task took nearly two weeks. With troops all onboard, the Howe brothers waited while winds blew into the mouth of New York Harbor, preventing the fleet from sailing. For three days, Admiral Howe's tars hove-to or tacked fruitlessly into the wind. Finally, on 23 July, the fleet cleared Sandy Hook for the open ocean.

Although he did not dismiss the possibility of a strike up the Hudson River or eastern New England, Washington suspected that General Howe might next move against Philadelphia and ordered his army to march south. On 24 July, he dispatched Wayne and Maj. Gen. Thomas Mifflin to their home state to coordinate mobilization of militia. The next day, he sent Lincoln to New England to do the same, with Wayne taking over Lincoln's division. A brigade of Pennsylvania militia marched from Marcus Hook to Wilmington, Delaware. Wayne's and Stirling's Divisions encamped at Darby, Pennsylvania.

Pennsylvania waged a forage war in anticipation of an invasion. Coordinating with Delaware, the state divided the waterfront into sectors up to the river's head of navigation and designated a class of nearby militia to drive cattle inland at the British approach, recording brand, number, and place from which they took the animals. Congress directed all Continental and militia officers in Continental service to assist in the effort.

British intentions remained unclear. On 30 July, lookouts at Cape Henlopen, Delaware, again spotted the British fleet at the mouth of the Delaware Bay, suggesting that the Howes were sailing still farther south. At that moment, Captain Hamond of HMS *Roebuck* reported to Admiral Howe aboard his flagship, HMS *Eagle*, at the mouth of Delaware Bay. On station in the vicinity since the 1776 battle, Hamond reported on the state of the Delaware River defenses and on the position of Washington's army. Hamond recommended that General Howe disembark at New Castle, Delaware, and assault Philadelphia by land. The Howes considered sailing up the river too risky and decided against Hamond's recommendation. They sailed

instead for the Virginia capes, allegedly intending to first travel up the Chesapeake and destroy the magazines at York and Carlisle before proceeding to Philadelphia.

News of the fleet's sighting reached Washington the next day at Coryell's Ferry, New Jersey, on the Delaware. That night, the commander in chief arrived in Philadelphia at the head of an advanced body of light horse. He proceeded to the Delaware River defenses, where he conducted a survey with Philippe Charles Tronson du Coudray, a French engineer and the ordnance expert in charge there. Washington suggested that Coudray focus on Fort Mifflin as the keystone of the river defenses.

However, as the days wore on with no sign of the fleet, Washington, Greene, and Sullivan began to suspect that Howe's objective could be the Connecticut coast, with the Highlands as the ultimate goal. On the morning of 1 August, coastal scouts reported that Admiral Howe's fleet had turned east and disappeared over the horizon. A concerned Washington immediately recalled Sullivan's division to the Highlands and asked the governors of Connecticut and New York to march their militia to Peekskill. With the intentions of both Admiral and General Howe in doubt, and thousands of troops already on the Delaware, the commander in chief took a sensible precaution. He countermanded his order to General McDougall, whom he had earlier ordered to march to Pennsylvania, and ordered him instead to Peekskill to take command until Sullivan arrived.

Greene still did not rule out Philadelphia, nor did Washington. A Rhode Island native brought up in the Society of Friends, Greene served in the colonial legislature and helped organize the Kentish Guards, a militia unit, in 1774. A major general in the Continental Army since 1776, Greene had distinguished himself at Trenton and Princeton. As he explained to Sullivan on 3 August, Howe may have changed course to gain more sea room in rounding Cape May and might still sail up the Delaware River. If General Howe landed in western Connecticut or southern New York, as Greene fervently hoped he would, his army would hit the Main Army at its strongest point. But if Howe took Philadelphia, along with Congress and the vital arsenals therein, Greene surmised all might be lost.

Pennsylvania's Executive Council also recognized the threat and on 6 August drafted plans for the evacuation of Philadelphia.

With an invasion of Pennsylvania now likely, Washington ordered Sullivan to march south late on 22 August, leaving McDougall at Peekskill. Earlier that day, the New Hampshire general launched a side raid, landing some of his troops at Staten Island. The raid proved a disappointment. One of Sullivan's brigade commanders, the French brigadier general Borre, spoke little English and was slow to get his brigade on the march. The soldiers captured some military stores of minor value at the cost of nearly 200 killed or captured. Although disappointed at the raid's unfortunate outcome, Washington praised Sullivan's initiative and the conduct of his soldiers. Nevertheless, Sullivan's decision to mount the raid, and moreover his management of it, set tongues wagging. A court of inquiry would have to wait. On the day of the raid, lookouts spotted the British fleet in the Chesapeake.[3]

Although plausible from the standpoint of conventional European doctrine, Howe's decision to attack Philadelphia contravened Germain's instructions and perplexed Continental Army leadership. An invasion of western New England or southern New York made the most sense. Ticonderoga was in British hands, and Lt. Col. Barrimore St. Leger threatened Fort Schuyler. Yet the Howe brothers sailed down the East Coast, away from their bases at New York and Newport, away from the critical Hudson River valley, and away from the two biggest American field armies. As General Greene observed, "General Howes avoiding our army dont look like conquering the country."

From Head of Elk to Kennett Square, 25 August–10 September

Howe's army landed at Head of Elk, Maryland, less than a day's march from the Delaware River, on 25 August 1777, just as the militia drove off the last of the stores there. As the British landed, it began to

3. A court of inquiry cleared Sullivan of wrongdoing on 12 October 1777.

rain. Heavy at times, the rain would last for the next day and a half, soaking the army's ammunition supply. The long voyage had taken its toll on the army's horses, most of which died on the voyage or shortly after landing, and his soldiers needed fresh provisions.

Howe rested his troops for several days. In contrast to his New Jersey operation, the general forbade plundering. It mattered little, as the Pennsylvania and Delaware militia regiments had done their job well. Hessian jaegers patrolled the peninsula and were able to shoot some livestock and small game, but otherwise, Howe's troops found that the militia had stripped the country clean, and the inhabitants had evacuated it.

The day that the British landed, Washington arrived at Wilmington at the head of an advanced body of light horse. Greene's and Stephen's Divisions followed close behind The army camped on Naaman's Creek in Delaware. Stirling's and Wayne's divisions arrived the next day, and Sullivan's division reached Princeton late in that day.

Several new additions accompanied the army. European officers had served with the army since early in the war. Borre and Conway, both French officers, commanded brigades in the Main Army and Coudray supervised the Delaware River defenses. Most of the earlier arrivals were soldiers of fortune, seeking high rank and pay. Many would prove failures. Now in the third summer of the war, as French involvement deepened, the French Ministry of War sent volunteers under the stipulation that their Continental rank be only one grade higher than their French Army rank. Serving without pay, these officers possessed vital specialized skills that were lacking in the Continental Army. Experienced engineers stood foremost among the new arrivals. Thomas-Antoine de Mauduit du Plessis, François-Louis Teissèdre de Fleury, and Pierre Charles L'Enfant, who arrived with Coudray in May 1777, were field officers and engineers. Congress appointed as chief engineer Antoine-Jean-Louis Le Bègue de Presle Duportail, the most talented of them all. Casimir Pulaski, an exiled Polish cavalry officer with extensive military experience and strong recommendations from friends in France, arrived in late August. Another young cavalry officer, arriving with Johann de Kalb, seemed unremarkable at first but

carried important if intangible credentials. Marie Joseph Paul Yves Roch Gilbert du Motier, Marquis de Lafayette, came from the very highest circles of French society and could pass his observations and opinions directly to those most responsible for maintaining the Franco-American alliance.

On 26 August, Lafayette and others accompanied Washington at the head of an advanced body of light horse to the top of Iron Hill, about 6 miles east of the British, to reconnoiter the enemy position. The Christina River flowed from the northwest around the eastern base of Iron Hill, cutting through miller Thomas Cooch's property and the bridge he built over it, before turning east. Aiken's Tavern lay about a half mile to the south. To the east, three streams—from west to east, White Clay Creek, Red Clay Creek, and the Brandywine Creek—meandered roughly southeast past Newark, Delaware, and Kennett Square and Chadds Ford, Pennsylvania, before emptying into the Christina near Wilmington.[4] They created natural barriers around those towns and along the roads to Philadelphia.

Leaving an outpost on Iron Hill, Washington returned to Wilmington the next day, and ordered his troops to fortify the city and create a cordon around Head of Elk. He directed Greene to march his division from the Brandywine to White Clay Creek. He dispatched Marylanders General Smallwood and Lt. Col. Mordecai Gist to their home state to muster 1,250 militia at Baltimore and Harford Town, to the northeast on the Philadelphia Road, and 750 more at Georgetown on the Chesapeake Bay's eastern shore. Washington also sent militia to secure Christiana Bridge, which crossed White Clay Creek on the road to Wilmington. Pennsylvania ordered militia to Lancaster should Howe march north. Although these advance elements fought a number of skirmishes and took a few prisoners, they were only partially successful in denying forage to the invaders.

Concluding that Howe intended to take the coastal route through Delaware, Washington now arrayed forces at Iron Hill and

4. John Chads had established the ferry in the 1730s. When he petitioned for a ferry, a township scribe misspelled the site as Chadds, and the name stuck.

the crossroads at Cooch's Bridge at the foot of its eastern slope, to cover his army's march to the east side of Red Clay Creek. Having sent Morgan to upstate New York in August, Washington ordered Maxwell to lead light infantry to reinforce the outpost at Iron Hill and defend a ford about 200 yards south of Cooch's Bridge to delay Howe's advance. The army established another defensive line along the White Clay to contest a march north against Newark, and a third along the Red Clay between Marshallton, Stanton, and Newport near the confluence of the White Clay and the Red Clay, with Wayne's division at Wilmington.

On the morning of 28 August, the rain finally having stopped, General Howe divided his remaining force at Head of Elk into two columns and marched into the countryside. Cornwallis led the army's northern wing, and Knyphausen now commanded the other. Howe had found Heister irascible, lethargic, and incapacitated by long military service and left him behind at New York. The aggressive Knyphausen, by contrast, had led the assault on Fort Washington, New York, in 1776. The Hessian marched his wing of the army from Turkey Point to Elk Landing, overwhelming a small militia guard and seizing tons of supplies there. The militia retreated at its approach. That night, Knyphausen's column crossed the Elk River and marched to Cecil Court House, 5 miles southwest of Iron Hill, where it camped, then foraged in northern Delaware. Following reports that the Americans had occupied a line along White Clay Creek, Howe concentrated his column around Iron Hill over the next few days.

The third of September dawned cool but grew increasingly hot as the day continued. At 0500, Cornwallis's column marched into Delaware from nearby Gray's Hill in Maryland and then turned south, skirting Iron Hill to march east to Aikens Tavern. There, he combined forces with Knyphausen, then drove north.[5] At 0900, a half mile into the march, Maxwell attacked the column with 1,720 Continentals and militia, keeping up a running fire for 2 miles. About 500 soldiers under Charles Armand Tuffin, Marquis de la Rouërie,

5. This action was fought along modern-day Route 896.

made a brief stand at Cooch's Bridge, before Howe ordered Wurmb's *Jaeger Battalion* to take Iron Hill. The Americans retreated north along the foot of Iron Hill, toward the Welsh Tract Baptist Church. After reaching Cooch's Bridge, the British *1st Light Infantry Battalion* under Col. Sir Robert Abercromby marched east to cross the Christina River, then turned north along the road to Newark, attempting to cut off and surround the retreating Americans. A regiment of militia stood and fired a single volley, then retreated before the redcoats. The British light infantry was bogged down in a swamp which slowed its advance and allowed the militia to retreat to safety. The Battle of Iron Hill or Cooch's Bridge cost the Americans twenty killed and twenty wounded, and the British three dead and twenty wounded.

The two armies continued to march northeast through Delaware. Maxwell's force withdrew northeast to the American lines along Red Clay Creek. Knyphausen followed with his column, driving the cattle and horses he had foraged. The British and Germans now occupied a line between Aiken's Tavern and Iron Hill. On 6 September, Sullivan marched his division from Chadds Ford to the hills north of Newark. Two days later, having occupied the position at Iron Hill for five days, Howe marched his army through Newark, finding that the Americans had evacuated the city and given him the slip. Observing the Americans dug in along Red Clay Creek and fortifying Wilmington, Howe marched through the pass north of Newark lately occupied by Sullivan.

Refugees continued to empty the city of Philadelphia. Over the next four days, following the skirmish at Iron Hill, the Executive Council requisitioned wagons to remove ammunition, stores, and militia dependents from the city. The Council then arranged for its own evacuation and ordered Samuel Caldwell and Alexander Nesbitt of the Philadelphia Light Horse to transfer prisoners of war to Virginia. By 5 September, Washington had thinned the garrisons on the Delaware River forts to token strength and ordered the islands on which they stood flooded to deny access to landing parties. He asked the Executive Council to remove the bridge at the Middle Ferry on the Schuylkill.

Both armies prepared for battle. On 7 September, the American Deputy Quartermaster General Jonathan Mifflin reported that Howe had ordered his baggage trains back to the fleet, anchored

Elizabeth Chads House (*Joseph Seymour*)

in the Elk River. The next day, the Pennsylvania Executive Council sent wagons to the Main Army for the same purpose. Marching without baggage trains preserved wagons, teams, and camp equipment, and enabled both armies to maneuver quickly, but at the cost of supplies necessary to sustain them. As a result, the British and Hessian troops would require several days after each battle to rest, regroup, and forage, and Washington would have to maneuver his army between Howe and his own supplies, limiting his ability to sustain combat.

Howe's inability to supply his army in the field was not lost on many in the American camp. On 8 September, General Armstrong speculated to Wharton that Howe might reembark, sail up the Delaware, and assault the forts on the Jersey side, thereafter keeping close to the fleet, his logistics base. Armstrong, who had supervised the defense of Charleston, South Carolina, in 1776, suggested that Wharton contact Governor Livingston about reinforcing Billingsport and recommended either attacking Howe in his camp before he could march back to his ships or getting around into his rear if he moved. Armstrong's intuition proved apt: unbeknownst to him, Captain Hamond sailed HMS *Roebuck* and

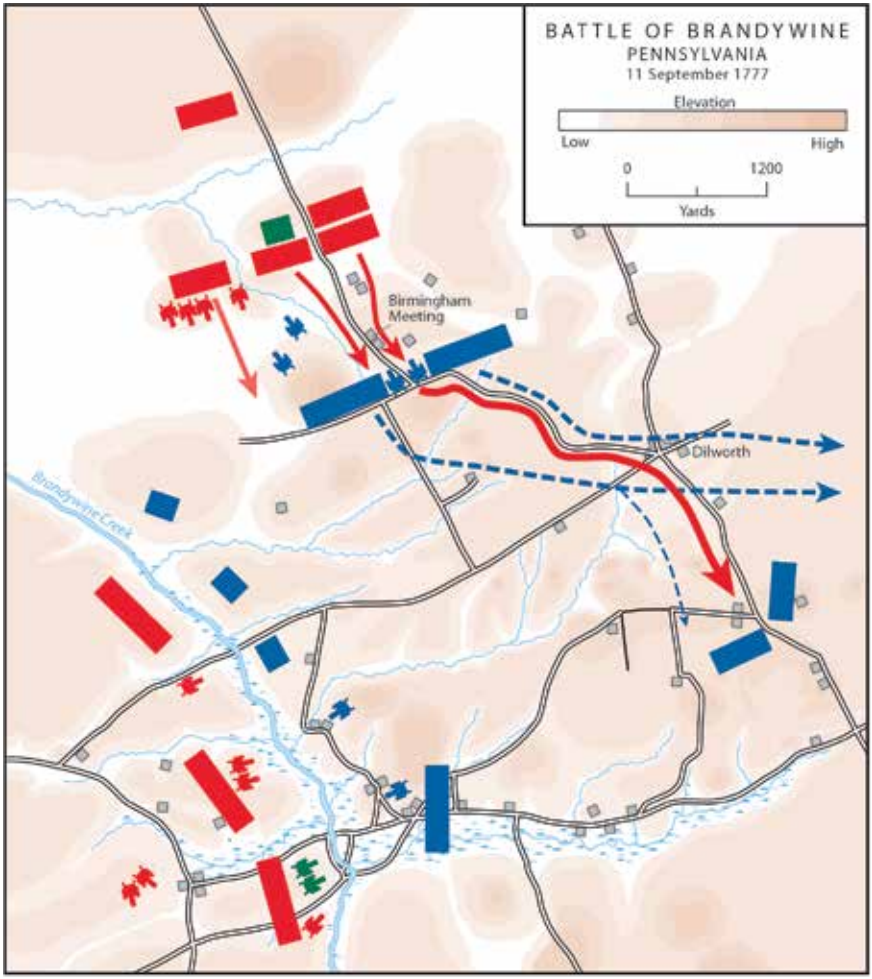
three transports for the Delaware River that very day and would arrive off Wilmington two days later.

Instead of fighting another frustrating campaign of skirmishing and maneuver, Howe undertook to outflank Washington. On 9 September, the British took up positions 3 miles west of Newport to create a diversion while two divisions under Cornwallis turned north to Hockessin and camped. Knyphausen marched on to Kennett Square, 8 miles west of Chadds Ford on the Brandywine Creek, and established his headquarters at the Sign of the Unicorn Tavern (also known as Graham's Tavern), near the intersection of the Baltimore Road and the Lancaster-Wilmington Road. Cornwallis arrived at Kennett Square at 0600 on 10 September.

The Battle of Brandywine, 11 September 1777

At the news of Howe's march, Washington ordered his army to stand to arms. At first, he thought that Howe might march north to raid supply depots at Lancaster. He had reason to be concerned. Refugee wagons from Philadelphia choked the roads to Lancaster and Reading, Pennsylvania. The loss of so many supplies, or capture of even a single delegate, could prove devastating to the cause. However, Howe had broken contact with the fleet, so he might move against a town or city on the Delaware. Washington gambled on the latter course. President Wharton had already put the Pennsylvania militia to work, building defenses and assembly areas at Chester. Washington marched from Newport to Chadds Ford as Knyphausen reached Kennett Square. The Main Army redeployed on the left bank of the Brandywine the following day (*Map 6*). Washington set up his headquarters at the home of Benjamin Ring, just off the Great Nottingham or Baltimore Road, about a half mile east from Chadds Ford and ferry.

Above and below Chadds Ford, the rain-swollen Brandywine Creek wound its way through rolling countryside southeast to Wilmington and the Christina River. Farms, mills, meetings, and small villages dotted the landscape connected by several thoroughfares. The Baltimore Road crossed the river at the ford and



Map 6

ferry and continued east to Philadelphia. Pyle's Ford lay a little more than a mile south of Chadds Ford in an area of alluvial plain and swampland. To the north, the ground rose as a series of streams emptied into the Brandywine, creating draws and gullies in the rolling hills. Brinton's, Jones's, Wister's, and Buffington's Fords were respectively 1, 2.5, 3.5, and 6 miles northwest, connected on the west side by a road that ran along the east side of the creek, and themselves facilitating east-west road crossings. Just below

Buffington's Ford, the stream forked, one branch continuing a mile northwest to Trimble's Ford, the other going north a little more than a mile to Jefferis Ford. From Trimble's Ford, a road ran east to Jefferis Ford, then turned east, intersecting with the Birmingham Road that ran south past Strode's Mill, over Osborne Hill, and ascended to where the modern-day Street Road crosses on its way southwest to Jones's Ford. As the Birmingham Road continued southeast, the ground rose to the Birmingham Meeting. Six hundred yards past the meeting, Sandy Hill stood to the northeast and Birmingham Hill to the southwest side of the road. A mile and a half southeast of the meeting, the road reached Dilworth. There, it intersected the Wilmington Pike, which ran roughly parallel to Brandywine Creek to its intersection with the Baltimore Pike. Within a few hours, these fields would see some of the fiercest fighting of the Revolutionary War.

Washington arrayed his force to defend the several fords on the Brandywine. He discounted a crossing at Jefferis Ford, as it was above the fork of the creek, in broken country, and too far away. Although still passable, the recent heavy rains made the fords deeper than normal, about waist deep for soldiers crossing on foot, and chest deep in places such as Chadds Ford. Wayne's division took up position at that ford and ferry, its brigades behind each other, and Wayne posted Procter's artillery on the high ground northeast of the widow Elizabeth Chads's house. To the south was Greene's division. Behind Wayne lay Stephen's division in reserve near headquarters, with Stirling to his north behind Procter. Nash's brigade fell in behind Stephen. Washington selected Chester, about 10 miles east, as the rally point for the army, in case of retreat.

Sullivan, who had held the ground a few days earlier, occupied Brinton's Ford to the north of Stirling's position. Sullivan detached the Delaware Regiment to Jones's Ford and the two battalions of Col. Moses Hazen's 2d Canadian Regiment (Congress's Own), to Wister's and Buffington's Fords, respectively. The Americans commandeered the Birmingham Meeting House for use as a hospital. Washington also posted Armstrong, with about half of the Pennsylvania militia, about a mile south at Pyle's Ford.

Birmingham Friends Meetinghouse (*Joseph Seymour*)

Washington sent out patrols on 10 September. He ordered Maxwell's light infantry—with attached troopers of Col. Theodorick Bland's 1st Continental Light Dragoons—and Col. James Dunlap's Cumberland County Regiment, Pennsylvania Militia, to patrol the roads west of the fords and to fell trees to impede any advance. Maxwell posted a company at Welch's Tavern on the Baltimore Road, and another company about 1 mile north. Further upstream, Sullivan ordered part of the 7th Maryland Regiment, led by Capt. Mountjoy Bayly, to reconnoiter the western side of the creek. Colonel Hazen did likewise with detachments of Congress's Own and riflemen from the 12th Pennsylvania Regiment. Washington directed Maj. Joseph Spear, 8th Regiment, Chester County Militia, to reconnoiter the roads toward Kennett Square. Spear spent the night about 5 miles to the northwest, at Martin's Tavern on the Great Valley Road, which ran between and roughly parallel to the Baltimore and Lancaster Roads. Also present was Col. John Hannum, 1st Regiment, Chester County Militia. In the early

morning hours of 11 September, Spear left the tavern and patrolled as far as Welch's Tavern, where a company of Maxwell's light infantry camped.

Howe planned his attack in two columns. Knyphausen would strike the center of Washington's line at Chadds Ford. His column accordingly consisted of three brigades of regiments, less their flank companies, and the train of artillery, followed by the foraged cattle and plunder. Led by Cornwallis, the other column would march several miles to the north of Chadds Ford, cross the creek's two branches, and attack Washington's right flank or possibly encircle him. Once Cornwallis had formed in line of battle, Knyphausen would attack across the creek, catching Washington in a pincer movement.

Before daybreak on 11 September, Cornwallis's column formed under arms west of Kennett Square, guided by local loyalists John Jackson, Curtis Lewis, and Joseph Galloway. Four brigades consisting mostly of the *Guards,* flank troops, and a brigade of artillery, lined up along the Lancaster-Wilmington Road with dragoons and light troops, including Capt. Johann Ewald's jaeger company at their head. Howe accompanied Cornwallis. Knyphausen's column formed at Kennett Square, led by fifteen mounted dragoons and two battalions of partisans: Wemyss's *Queen's Rangers*, recruited from American loyalists in and around New York; and *Maj. Patrick Ferguson's Corps*—detached regulars carrying an innovative breechloading rifle that could shoot five rounds a minute, nearly twice the rate of a land pattern musket. The rest of the dragoons and the *71st Highlanders* protected the flanks of the baggage train.

As the two columns set out, the day dawned cool and foggy. About 1 to 1.5 miles into the march, a company of American skirmishers fired on Ewald's jaegers at the head of Cornwallis's column. The skirmishers quickly withdrew, sending word of the contact back to headquarters, while the British column continued its march. Knyphausen's column meanwhile marched east along the Baltimore Road toward Chadds Ford. At 0600, riflemen of *Ferguson's Corps* and the *Queen's Rangers* met Capt. Charles Porterfield's company of the 11th Virginia Regiment in woods east of Welch's Tavern. The

Continental company fired and retreated east in a running fight to Kennett Meeting, which occupied a high point on the road. Here, the road split to pass the stone building on either side. Maxwell's soldiers took cover behind the western wall of the meetinghouse to fire one volley, terrifying those worshiping inside. As Porterfield joined them, the light infantry retreated eastward to the Barns-Brinton House, where at 0715, the two advance elements again exchanged fire. Through a vigorous screening action, and by placing obstacles in the road, Maxwell's light infantry forced Knyphausen to divert his baggage train consisting of foraged livestock and other necessities, to the south.

At about 1000, Knyphausen advanced to Chadds Ford opposite the Main Army's center. Maxwell's light infantry waded the Brandywine under the muzzles of Procter's guns. The late summer sun had burned off the early morning fog, and the day had grown hot. While both sides paused to rest and regroup, riflemen sniped at each other as skirmishers advanced across the creek to feel the enemy's strength. Procter's gunners occasionally sent a ball whizzing over the creek, answered by German and *Royal Artillery* gunners. Loyalists from the *Queen's Rangers* and *Ferguson's Corps*, the latter with their new rifles, dueled with Maxwell's riflemen. During the skirmish, a rifle ball shattered Ferguson's elbow, taking him out of the battle.

In midmorning, as Maxwell's troops and Knyphausen's column exchanged shots across the creek, American patrols spotted Cornwallis. Bayly observed the column on the Great Valley Road near Trimble's Ford, as did Hannum soon after, but neither reported its exact location or direction of march. By noon, Washington had received the reports and ordered Colonel Bland to send a mounted patrol to locate the British column. The patrol rode north as far as the Great Valley Road. Posted over Brinton's Ford, Sullivan did not know of any fords north of Buffington's. A local guide at Washington's headquarters assured him that none of any consequence existed within 12 miles. Sullivan remained skeptical and sent two troopers of the 1st Continental Light Dragoons to check the creek north of his position. The question was no longer

whether Howe had marched a flanking column toward his right, now it was where and when.

Washington then ordered Greene and Sullivan to attack Knyphausen before Cornwallis's column could cross the Brandywine. Light troops opened the engagement as Sullivan ordered the 3d Maryland Regiment over Brinton's Ford to skirmish with Ferguson's corps. Knyphausen responded by sending the *Queen's Rangers* across the river. There, in low, swampy terrain, Maxwell's Light Infantry engaged them. The *4th* and *5th Foot* joined the fight, as artillery ripped through the combatants. Presently, Spear rode up to Sullivan, reporting no enemy activity on the Great Valley Road, having patrolled the road hours before Cornwallis or any other patrols passed it. Concerned, Sullivan passed the report to Washington, who directed Sullivan to break off the attack until he could get confirmation from Bland's patrol. As ordered by Howe, Knyphausen broke off his action until he was certain that Cornwallis had begun his attack.

Howe had by now reached Jefferis Ford. As the column slowed to cross the creek, Captain Ewald, leading the advance, feared an ambush. Cornwallis rode to the head of the column, and the two officers assessed the situation. The road ahead ran up through a narrow defile between two hills. Both officers expressed surprise that the Americans had left the ford undefended. Cornwallis suspected that the American light infantry that had earlier skirmished with the column might have taken up a position there. After his short discussion with Cornwallis, Ewald ordered a section of his jaegers to advance across the wide bottomland to probe for any opposition.

The main column followed the jaegers through the unoccupied defile and marched another mile and a half to Strode's Mill. Cornwallis halted and reformed his troops into three columns. Dragoons led the *Brigade of Guards* on the right. The center column marched in the road with two battalions of light infantry, two of British grenadiers, and three of German grenadiers, led by jaegers. The *4th Brigade* led on the left, followed by the *3d Brigade* in reserve. The movement took nearly two hours. Howe's troops had gone more than 12 miles in 8 hours, over difficult terrain in high heat. All were

tired; at least one dropped dead from heat exhaustion. Howe rested his army for another hour.

At 1315, Bland's troopers, who had been sent by Washington to reconnoiter the Army's northern flank, spotted the jaegers in advance of the main body on Osborne Hill. The dragoon officer immediately sent back two scouts, one to Washington, and one to Sullivan, reaching them both at about 1400. The scouts reported at least two British brigades marching south and to the rear of Sullivan's division. Washington ordered Sullivan, Stirling, and Stephen to march north to Birmingham Meeting with their divisions. Lafayette, in his first battle with the Americans, asked Washington if he could accompany Sullivan. The commander in chief consented.

The Continentals marched from their position south of Brinton's Ford via Dilworth to the ridge formed by Birmingham Hill and Sandy Hill, 600 yards south of Birmingham Meeting. Here Stirling's troops set up a defense behind the crest of Birmingham Hill, with Stephen's to the east behind Sandy Hill. Both positions lay south of gullies, the one in front of Stephen known as Sandy Hollow. To the north, the ground rose steeply to the higher, relatively treeless Osborne Hill. Between the divisions, gunners placed a battery of light field guns. Heavier batteries supported the division positions. By 1500, the two divisions were in place.

British and German officers in both columns observed these deployments. Light companies, including Ewald's, deployed into a skirmish line and advanced toward Birmingham Meeting. The meetinghouse itself stood roughly parallel to their approach, with a low, walled burial ground extending out to the road. Here, Col. Thomas Marshall ordered the of 3d Virginia Regiment to take cover in advance of other Continental light infantry and dragoons in the road. The latter took up defensive positions in Samuel Jones's orchard, at the intersection of Birmingham Road and the modern Street Road. Ewald and his British comrades charged them. The Continentals in the orchard replied with a withering fire, forcing the enemy back to Street Road, where they took cover below its bank. Ewald took two Highlanders and a mounted jaeger named Hoffman to reconnoiter Birmingham Hill, which lay to his right. Reaching

the top of the hill, he saw a second Continental division, Stirling's, which had occupied the reverse slope of that feature. Ewald sent off a report with Hoffman to Cornwallis and continued southwest toward Street Road.

Washington's order to Sullivan at Brinton's Ford arrived some minutes after his order to Stirling and Stephen. When Sullivan received it, he ordered his advance elements to break off fighting at the fords and his division to turn right from line into column, following the creek road to the north. At the sight of Cornwallis's column, Hazen withdrew the battalions of his regiments from their position at Wistar's and Jones's Fords. About a mile into his march, he met Sullivan. Hazen reported the location of the British column. While the two officers conversed, Sullivan spotted Ewald and his escort about 200 yards away. Sullivan then ordered his division off the road and up the ravine between Street Road and Birmingham Hill.

Ewald reported the deployment of the three American divisions to Cornwallis who ordered his columns into line. At 1600, the two light infantry battalions marched down Birmingham Road, led by the *Jaeger Battalion*, less Ewald's company, which remained at Jones's Orchard to cover the combatants there. As they came into open ground north of Street Road the light infantry turned east and formed into line. The grenadier battalions followed, deploying into line from the center. The *Brigade of Guards* deployed on the western flank. The *3d Brigade* then fell in behind the light infantry with the German grenadiers behind the British grenadiers in the center. The *4th Brigade* remained on Osborne Hill in reserve, as did the *16th Light Dragoons*. Howe and Cornwallis directed the action from there. At 1630, Howe gave the order to advance.

As the column formed into line, the skirmishers of the 3d Virginia rushed to Jones's Orchard and opened fire on Ewald. Unnerved by the long delay, the jaeger ordered his company to advance east of the orchard. With the British line advancing, a light infantry battalion took the advanced post. Ewald's company dispersed along the line. The Virginia skirmishers fell back to their regiment's post at the cemetery wall.

The Continentals defended excellent ground. Less than 600 yards separated the two lines. Continental infantry, supported by artillery, fired ball and grape into the advancing line. The British light infantry and jaegers made three assaults but were unable move the line forward because of heavy fire, thick tree cover, and the steep slope. With the attack stalled, Howe ordered the *3d Brigade* forward to add extra punch to the effort, but because neither he nor Cornwallis had given specific instructions, each commander had to act on his own judgment. To their right, the 3d Virginia fell back as the light infantry and grenadiers pressed their position at the cemetery. Continental artillery sprayed the attackers with grapeshot. As they reloaded, the *17th Foot's Light Company* rushed to the base of Birmingham Hill. The artillery fired again. Marshall, partially cut off by the *17th*'s advance, kept up a hot fire that held up the advance for 45 minutes, expending thirty rounds in that time, before retreating. By days' end, the 3d Virginia had lost eighty killed and wounded, more than two-thirds its strength.

About a mile to the west, Sullivan continued up the western edge of Birmingham Hill, open ground that afforded a good field of fire to the north and west, with woods to the east. Leaving Hazen and part of de Borre's brigade with his artillery, Sullivan posted the rest of his brigades on Birmingham Hill and rode off to converse with Stephen and Stirling, who were directing the fire of their divisions. The three generals determined that Sullivan had placed his division too far to the left. Sullivan sent an aide back to order Borre, the only other general officer in his division, to shift the division closer to those of Stirling and Stephen. However, Borre's response to Sullivan's order—possibly attributable to the French volunteer's poor command of the English language—proved disastrous for the army's defense of Birmingham Hill, and possibly for the outcome of the battle itself. Borre ordered the division to march into the woods behind Birmingham Hill, and around into position like a giant snake. Tricky under parade ground conditions in cantonment, the maneuver proved next to impossible to execute on a hill in Chester County, in the middle of a battle, with an enemy bearing down and firing artillery. Half of the division ended up at the base of the hill,

at the edge of woods facing the advancing *Brigade of Guards*, in the process masking the fire of the other half as it tried to execute the order.

From his vantage point atop Osborne Hill, Howe observed Sullivan's movement. Seeing the American division isolated from the battle, he ordered the *4th Brigade* to come up into line to support the light infantry in its fight at Sandy Hollow, and for the *3d Brigade* to take the place of the *4th*. Neither army had baggage trains present that day. The *3d Brigade* had been in action for one-half to three-quarters of an hour, and presumably its soldiers had spent the bulk of their allotted sixty rounds. Howe determined to redouble his efforts against Stephen, while extending his line to engage Sullivan. On the eastern flank, the light infantry and jaegers, now reinforced by the *4th Brigade*, slogged their way into Sandy Hollow. The British and Hessian grenadiers and the *Brigade of Guards* marched quickly downhill to the west. The 3d Virginia held up the center of the British advance along the Birmingham Road, turning the whole British line into a shallow vee shape, its tips pointing toward the defending Continentals.

As the Marylanders tried to execute the complicated maneuver, and with half of them unable to fire, the *Brigade of Guards*, supported by two medium 12-pounders, left the woods less than 100 yards away and fired into the disorganized line. The Continentals who were able to respond fired an ineffective volley. The *Guards* advanced to within 50 yards and poured another volley into them. Mayhem ensued as the division collapsed. On Birmingham Hill, the grenadiers continued straight ahead, leaving huge gaps in their line as detachments of Sullivan's shattered division fought a series of retrograde actions. Marching downhill in pursuit, the *1st Battalion of Guards* drifted off to its right toward the Brandywine. As they approached Brinton's Ford, gunners of Procter's Artillery opened fire, checking their advance. A brief artillery duel ensued, as *Royal Artillery* gunners exchanged shots with the Pennsylvanians. The *Guards* advanced southward into the defile. About a half-mile east of Brinton's Ford, Col. Samuel Smith of the 4th Maryland Regiment reached a high rocky hill, where he rallied part of the division. Organizing them

into companies, he gave the advancing redcoats two volleys. The grenadiers answered with a ragged volley that slightly wounded one of Smith's soldiers. Smith and his Continentals held the hill while the battle raged on elsewhere.

Back on Birmingham Hill, Sullivan directed the fire of the artillery at its post near the Birmingham Road in what was now the American center. He sent four aides back to his division to try to restore order. Spurring his horse, he then went himself, but to no avail. Apart from organizing a few pockets of resistance, the remainder of his division under Borre withered. Sullivan returned to Stirling's position, the latter's brigades of Pennsylvania and New Jersey troops now under pressure from the enemy grenadiers.

Sullivan decided to make a stand and buy time for his shattered division to withdraw, using the artillery in direct support. Continental gunners took a heavy toll of the advancing redcoats. The enemy light infantry, still pinned down by the gun crews to its front, with their comrades to their right and rear, did their best to keep up a fire. For nearly an hour, the grenadiers and light infantry charged the hills five times, each relying on the initiative of its commander under a constant fire. As the grenadiers approached a rail fence, Stirling's Continentals fired by platoon, keeping up a running fire along the entire line. Young Lafayette, in his first action, worked in the ranks, trying to repel the light infantry and jaegers with cold steel. At points, the 19-year-old Frenchman even fixed bayonets onto the arms of individual soldiers. As he did so, a ball tore through his leg. An aide helped him onto his horse and to safety as the light infantry and grenadiers swept forward. Clambering over the fence, the grenadiers reformed and charged at between 30 and 35 yards. The British now concentrated their fire on the former center of the line, targeting the artillery. The Continental line wavered. Conway, Stirling, and Sullivan did their best to rally the troops, which stopped to fire as they retreated from one patch of woods to the other. Bolstered by the charge of the grenadiers, the light infantry companies charged in and captured the five guns abandoned by the retreating Continentals.

As Stirling's Division withdrew, the situation on Sandy Hill grew critical. Scott's Brigade, on Stephen's left, now lay exposed by the

retreat of Stirling and the artillery. The rest of the *2d Light Infantry Battalion*, with the jaegers, charged up Sandy Hill, and Agnew's brigade advanced in support. On Stephen's far right, Woodford's Brigade kept up a hot fire, pinning the jaegers in Sandy Hollow. Colonel Wurmb ordered Sgt. Alexander Wilhelm Bickell to lead five jaegers around to the eastern flank and rear of Woodford's Brigade. There, they picked off individual soldiers at long range, their unanswered fire taking out officers and unnerving the Virginia soldiers. The defending Continentals began to exhaust their allotted forty cartridges. As Bickell and his riflemen picked their targets, the Continental position on Sandy Hill grew desperate.

At 1700, as pressure grew on his right flank, Washington ordered Greene to march north to see to the deteriorating situation at Birmingham Hill. Greene advanced Muhlenberg's and Weedon's brigades 3 to 4 miles at the double quick, arriving at a ridge about a mile south of Dilworth at about 1800. There he deployed his troops to buy time for Sullivan and prevent the army from being surrounded. A few minutes later, Washington, his aides, Knox, and Pulaski galloped cross-country to the position, reining in their horses at the Brinton House south of Dilworth. The commander in chief climbed the ridge across the road from the house. This hill gave him a good perspective of the fight on Birmingham Hill about a half a mile to the north and west.

Hearing heavy firing to the north, General Knyphausen ordered two 6-pounders and two 12-pounders into place to cover the fords to his front. The Hessian formed his column of 5,000 troops and prepared to advance. Knyphausen's redcoats and Germans crossed the creek in chest-deep water, making easy targets for Procter's gunners. Once across, the attackers slogged through 200 yards or more of swampy bottomland. As they came within musket shot, Maxwell's light infantry peppered them with rifle and musket fire from woods to the south. Two regiments followed the loyalists into the blood-stained water. Once across, the survivors joined the *Queen's Rangers*, formed column, and forged ahead.

Greene's displacement left Wayne's division, Nash's brigade, Maxwell's light infantry, and Armstrong's militia at the lower fords.

Wayne had positioned his two brigades in a shallow valley. To their front, Maxwell's light infantry made a stand in a buckwheat field as the redcoats closed. Nash's Brigade formed some distance to their rear. The two sides fixed bayonets and skirmished briefly before the Continentals retreated to a second line, about 500 yards to their rear. There, Col. James Chambers's 1st Pennsylvania Regiment stood across the road, opening his line for the retreating light infantry. The Pennsylvanians mounted a stout resistance, returning the fire of the advancing enemy volley for volley. Grapeshot and canister cleared lanes through the attackers. The redcoats seized an opportune cannon misfire, charged, and got inside the works. Wayne ordered Procter to retreat. Battalion officers directed wagoners to abandon their teams and their guns, but some failed to hear the order or refused. Sixty gunners dragged one cannon to the rear. Colonel Chambers ordered some of his officers and those of the artillery to rescue it. Edward Hector, an African American bombardier in Pvt. Hercules Courtenay's company, coolly collected small arms dropped by his retreating compatriots, taking them, his wagon, and his team, to safety.

Now unhindered by artillery fire, the *23d Foot (Royal Welch Fusiliers)* slogged across Brinton's Ford on Wayne's right. Once across, the Welshmen linked up with the *1st Guards Battalion* and the *2d Grenadier Battalion*, which had driven Colonel Smith and his 1,000 soldiers up to the rocky hill. Bypassing Smith's stronghold, the redcoats stormed over the heights of the Brandywine, hitting Chambers on his right flank. Chambers ordered his soldiers to oblique right, or present at an angle, and fired three volleys, checking the British advance.

It was now 1800. Four miles away, the defenders on Sandy Hill fought on until the enemy pressed them at the point of bayonet and hunting sword. American gunners stood to their cannons, many dying at their posts. Finally, the line yielded. Sullivan's troops retreated eastward toward Dilworth, some turning south toward Washington's position. At 1815, just as the sun set, Stirling's Division began its retreat, the brigades standing and retreating in turn. Hazen's Canadians and the 1st and 3d New Jersey Regiments

from Stirling's Division formed a rear guard. From his position at the Brinton House, Washington observed the withdrawal. General Knox unlimbered two cannons and placed them on the small hill northwest of the house to fire on the advancing redcoats, who halted as Cornwallis brought up his own artillery. Sullivan reformed remnants of his division, reinforced by the 2d and 10th Virginia Regiments, along a fence behind the guns.

Cornwallis continued to advance south, with the *2d Grenadier Battalion*, the *4th Brigade,* and the jaegers in the lead. In the waning warmth of a very hot day, Sullivan received the attack from his new position, before falling back 200 yards to a second fence, where enemy fire killed his horse. Greene took command of the troops and marched them south to the brigades on either side of the Wilmington Pike. There, Greene placed his troops in two lines. General Weedon positioned his brigade along a timberline, on the reverse slope of a ridge facing a farm complex parallel to and just east of the Wilmington Pike. At Sullivan's request, Greene ordered the 2d Virginia Regiment and the 10th Virginia Regiment to take a position in a ploughed field at a 90-degree angle to Weedon's brigade across the road, so that the new line formed a shallow reversed C. Greene placed two bodies of troops in the field in front of this line, in a position to support one another, and 300 or 400 yards to the west, or front of the main line. In this manner, the forward line had room to maneuver but remained within the effective range of the battalion guns. Placement of these troops enabled Greene to fire on any advance down the Wilmington Pike, while simultaneously supporting the withdrawal of the brigades battered at Birmingham and Sandy Hill.[6] Greene reformed stragglers from that fight into his new line of defense.

As Agnew's *4th Brigade* and the *2d Grenadier Battalion* advanced southeast, nipping at the heels of the retreating Americans, they came directly in front of Greene's troops. Continental artillery fired grapeshot and the infantry launched

6. Washington or Greene ordered Muhlenberg to take a longer route. Weedon arrived at the new line around 1800, Muhlenberg shortly thereafter.

several volleys into the advancing redcoats, especially the *64th Foot*, throwing them into temporary disorder. In response, the *Royal Artillery* moved up two twelve-pounders, unlimbered them, and fired on the American pieces. The American gunners limbered their guns, withdrew a short distance, unlimbered, and returned fire. Having suffered heavy casualties, and with darkness falling, the British halted their advance at 1930.

Down at Chadds Ford, Wayne's two brigades fought a tough but lopsided battle as the *23d* and remnants of the *1st Battalion of Guards* and *2d Grenadiers* remained in contact on their right, and the *71st Highlanders* and *Queen's Rangers* pressed on the left and front, joined now by two British brigades and *Stirn's Brigade*. With daylight fading and ammunition running low, the outnumbered Wayne reluctantly ordered his bloodied brigades to retreat 600 yards to a hill off the north side of the Baltimore Road and reform. The enemy drew to within 30 yards but did not press the attack.

The three Continental Army elements under Greene, Wayne, and Smith withdrew from the battlefield under cover of darkness. Having stalled the British advance, Greene then reformed the troops into a column, and retreated southward down the Wilmington Road to the Baltimore Road. There, he met Washington and marched to Chester, the appointed rally point. Smith and Wayne evacuated their respective hilltops. Armstrong, having seen little or no action, retreated from his post at Pyle's Ford and trudged eastward after them.

Marches to the Battle of the Clouds and Paoli

General Howe had executed a daring flanking march and driven the Continental Army from the field in a daylong battle that put his army no closer to victory. His army lay scattered for miles across the Chester County countryside, exhausted after its march and hard fighting, with its baggage train in Delaware. The battle had cost his army 587 killed and wounded. Howe would spend the greater part of the next four days gathering up stragglers and prisoners, burying the dead, and treating the wounded, before marching in pursuit of his

foe. Following the battle, Howe ordered his fleet to weigh anchor to begin the long trip back down the Chesapeake and up the Delaware River. Until he could reestablish contact with the fleet, General Howe needed supplies. He sent what troops were able to scour the countryside. On 12 September, he sent one light infantry battalion and his two grenadier battalions to Chester, but Washington had already retreated over the Schuylkill to the falls of the Schuylkill near Germantown, leaving the enemy an empty town. Another column, consisting in part of the *42d (Royal Highland) Foot*, entered an undefended Wilmington to leave some of General Howe's wounded to the care of Hamond's squadron.

Washington now looked to the Schuylkill River as his next line of defense, reiterating to Wharton his commitment to defend the capital. As reports reached Philadelphia on the day of the Battle of Brandywine, the Supreme Executive Council had ordered the shuttering of all nonessential businesses and directed seven militia regiments to march to the Schuylkill River crossings behind Washington's line on the Brandywine. Understanding that Howe would likely send a column on to Chester to await the fleet, Washington wrote to Armstrong to secure the Schuylkill River fords, adding that any defense of the river could only be temporary. On the day after the battle the Executive Council reinforced the guard at Swedes' Ford with two 12-pounders, which it soon augmented with an artillery company. Duportail supervised newly arrived militia companies into the night, throwing up redoubts at the fords as the water level dropped. On 13 September, Congress authorized resumption of work on Fort Mud, renamed Fort Mifflin, construction having paused on 11 September when Coudray accidentally drowned. Washington told the Philadelphia Artillery to man the forts, and the Pennsylvania Navy to anchor behind the chevaux-de-frise.

If Howe moved against Philadelphia, Washington intended to put his army between the city and the British. He had lost 502 killed and maybe as many wounded on 11 September, with another 400 taken prisoner. On 14 September, he sent an express rider to General Putnam in the Highlands, requesting General McDougall

to march south with the 1,500 reinforcements he had been holding in readiness since August. Having cleaned arms and drawn forty rounds per soldier, the army waded west across the Schuylkill at Levering's Ford in Roxborough, upstream from the mouth of the Wissahickon. That evening it marched up the Lancaster Road to the Buck Tavern.

Having regrouped and rested his army, Howe left the Brandywine battlefield on 16 September and turned north to meet Washington. Jaegers tangled with militia and Continental skirmishers along the way. Wurmb's troops ascertained that Washington was at the White Horse or Warren Tavern on the Swedes' Ford Road in an area west of the Schuylkill known as the Great Valley. At 0900, Washington ordered the army under arms and sent baggage to the rear as the two armies drew up for battle. Howe threw out skirmishers, who fired a volley at Washington's advanced posts, causing them to break and run. Washington then ordered Scott's brigade to push back the enemy advance. As the Virginians moved forward, rain began to fall, increasing in force to that of a tropical storm. Blinding sheets of water doused the armies, saturating the low ground between them and rendering roads nearly impassable, ending the Battle of the Clouds.

Neither army sought to renew the battle. The storm lasted all day and into the next. Following the deluge, Howe continued east toward Swedes' Ford, seeking to cross the Schuylkill and march on Philadelphia. He camped his tired and waterlogged troops at Tredyffrin. Washington withdrew 8 miles north to Yellow Springs, arriving early the next morning, and then moved to the magazine at Warwick Furnace to replace the army's ammunition supply. Pennsylvania militia moved 100 head of cattle to Swedes' Ford on 18 September, while British light infantry seized vast quantities of supplies and destroyed smithies at Valley Forge. Washington then marched his army to cover Swedes' Ford and other Schuylkill River crossings to the north, eventually recrossing the Schuylkill to the east and concentrating the bulk of his army at Trappe. Through his aide, Alexander Hamilton, Washington recommended that Congress immediately evacuate Philadelphia.

Washington dispatched an advanced column under Wayne and the newly reorganized Maryland Militia under Smallwood and Gist to harass the rear of Howe's columns. The Marylanders skirmished at the Spread Eagle Tavern on the Lancaster Road but did little else. Wayne marched his small force, numbering about 1,500 soldiers, to a wooded lot near Paoli. He reconnoitered the British column but finding that it was too large to attack with his small force, he waited until it resumed its march. Local loyalists reported Wayne's presence to Howe. The British commander dispatched General Grey with a force of light infantry and dismounted dragoons. Ordering his redcoats to unload their muskets, Grey attacked Wayne's camp on the night of 20 September, using cold steel to hack and bayonet the surprised troops in the night. In the frenzied fighting, redcoats committed numerous acts of mutilation. Suffering nearly 300 casualties, and cherishing a burning desire for revenge, Wayne extricated the survivors and rejoined the Main Army.

With the fall of Philadelphia imminent, most members of Congress and the Assembly relocated to Lancaster between 19 and 25 September. The Pennsylvania Executive Council held its last meeting at Philadelphia on 23 September. Two days later, Continental Congress President John Hancock and some Congressional delegates arrived in Lancaster. Over the next few days, more members arrived, as did other notable Philadelphians. Some evacuated to New Jersey or elsewhere. On 29 September, Congress reconvened at York; the Pennsylvania Assembly on 1 October at Lancaster.

As Congress and the Pennsylvania government adjourned, Col. Henry Philip D'Arendt, a Prussian volunteer claiming an engineering background, and Colonel Smith, who had rallied the remains of Sullivan's division on the rocky hill at Brandywine, rode with their aides to Fort Mifflin. A small garrison accompanied them, consisting of 200 Virginia and Rhode Island soldiers, and a company of Continental Artillery. Col. William Bradford, Philadelphia Militia, took command of the garrison at Billingsport, consisting of Lt. Col. William Will and 300 soldiers of his 4th Regiment, Philadelphia Militia, and twelve Philadelphia Artillery gunners under Capt. Samuel Massey. Over the next two days, 150 New Jersey

militia joined him. Smith found the fort's defenses in disarray, with only the east and south walls finished. Now, flying a massive red, white, and blue striped flag decorated with a rattlesnake, the fort sat on a sandbar that was often underwater at high tide. A log palisade completed Fort Mifflin's northern and western walls, with barracks, blockhouses, and a floating chain to prevent access to the island from the west.

Howe now descended on Philadelphia. Finding the ford at Fatland unguarded, his army crossed the Schuylkill to Norrington on 23 September. On the approach of his force, the outnumbered Pennsylvania Militia elements stationed there abandoned the three 12-pounders. On 25 September, Howe marched his army to Germantown. The next day, 26 September, Cornwallis entered Philadelphia. His troops found the city largely empty. Between 7,000 and 10,000 inhabitants had fled. State committees, militia, and Continental troops had carted off just about anything of military value. Colonel Flower had even taken the city bells, including the 2,000-pound State House Bell, now famous as the Liberty Bell, which Flower carefully removed to Zion Lutheran Church in Allentown for safekeeping.

Cornwallis faced a supply problem that Washington knew extremely well. Having sent the fleet back down the Chesapeake, his soldiers had been carrying most of their supplies on their backs for more than a month now, cannibalizing hats and coats for spare cloth. To add to his headaches, the remaining civilian population in the city expected his army to feed and protect them. Howe ordered Cornwallis to garrison Philadelphia with 6,000 British and German grenadiers and began a series of fortifications across the northern boundary of the city, between the Delaware River and the Schuylkill River. These works defended against any attack from the north. Cornwallis ordered the *23d Foot* to the Middle Ferry to secure communication across the Schuylkill and stationed 2,000 Scots and Hessians at Wilmington as security for supplies coming off the transports when they arrived.

Knowing that he could not hold Philadelphia with such a tenuous supply line, General Howe would have to breach the Delaware

defenses' chevaux-de-frise, two sets of which blocked the channel at Billingsport and at Fort Mifflin. On 29 September, he dispatched Cornwallis with Capt. Archibald Robertson, Royal Engineers, to reconnoiter the mouth of the Schuylkill. On the same day, as Bradford, D'Arendt, and Smith assessed the defenses, Howe ordered Col. Thomas Stirling to march from Wilmington to Chester with his own *42d Foot*, the *10th Foot*, and attached artillery. Admiral Howe dispatched Captain Hamond in the HMS *Roebuck* to take station below the forts with three frigates. On 1 October, Hamond's tars ferried Stirling's redcoats across to New Jersey. Facing overwhelming odds, Brig. Gen. Silas Newcomb of the New Jersey militia ordered his 150 soldiers at the fort to withdraw, leaving Bradford to evacuate Billingsport. Stirling arrived and completed the destruction, leaving only Fort Mifflin and an empty Fort Mercer at Red Bank, New Jersey, to cover the river obstacles. A few days later, on 3 October, Captain Montresor, with a section of grenadiers, surveyed the best spots on Province Island, at the mouth of the Schuylkill River, to erect batteries to reduce the fort that he had begun in 1771. Smith frantically wrote Washington that unless he garrisoned Fort Mercer, "the enemy will have this pass." Smith's request would have to wait, as Washington turned his attention to an attack on Germantown.

Located about 6 miles northwest of Philadelphia, Washington's target consisted of a densely developed row of houses, running for 2 miles on either side of the Germantown Road, which was intersected by a dozen cross streets. The Germantown Road continued roughly northward to the summit of Chestnut Hill, where it intersected with the Bethlehem Road, before continuing northwest into Berks County. About 2 miles southwest of the village, the Manatawny Road followed the left bank of the Schuylkill River northwest toward Reading. About 1 mile to the southeast, the York Road ran north into Bucks County and the Delaware River crossings. Roughly 4 miles north, Church (or Skippack) Road intersected with the York Road at the home and gristmill of Dorothy Penrose Shoemaker before continuing northwest toward its namesake village. Washington could easily approach the town on these roads, but natural barriers limited access to the town itself. Wingohocking Creek roughly

followed the course of the Germantown Road about 400 yards to its northeast. Although small and easily forded, the banks of the creek formed a shallow gully that ran through dense woods growing in thick, rocky soil, consisting of crumbly Wissahickon schist that provided poor footing. Paled fences enclosed the backyards of most dwellings, many of which boasted gardens and fruit trees, a further impediment. At the extreme western edge of town, the Wissahickon Creek cut a deep gorge, dropping between 200 and 300 feet below the level of the town as it flowed into the Schuylkill. Topography likewise posed a challenge for the defenders: from the Philadelphia State House to Germantown, the ground rose about 220 feet. From Germantown's Market Square to the western edge of town, the ground rose another 120 feet. Resupply and reinforcements from Philadelphia faced a steep approach.

General Howe established his headquarters at Stenton, a mansion about 1 mile southeast of the main encampment, near the intersection of the Germantown and York roads. The *1st* and *2d Guards* camped nearby. Howe placed strong pickets at each of the main roads through the town, each consisting of a light infantry or partisan battalion supported by a regiment. The *2d Light Infantry Battalion* under Maj. John Maitland covered the Germantown Road at a small hill called Mount Pleasant. The *40th Foot*, under Col. Thomas Musgrave, camped 1 mile behind him at Cliveden, a large stone mansion owned by Pennsylvania Chief Justice Benjamin Chew. Supported by the *4th Foot*, Colonel Abercromby's *1st Light Infantry Battalion* took post at the Limekiln Road at the northeastern edge of town. The *Queen's Rangers* and the grenadier and light companies of the *1st* and *2d Guards Battalions* did the same a few hundred yards to the east at nearby Lukens Mill on the York Road. Pickets at secondary roads consisted of detachments from the main thoroughfares. Howe posted his artillery, *Stirn's Brigade*, and the *4th* and *3d Brigades* in a line along School House Lane, running from southwest to northeast, bounded by the Wissahickon gorge to its front and the Schuylkill River to the southwest. *Stirn's Brigade* camped on a parcel of land owned by Joseph Warner. Wurmb's *Jaeger Battalion* patrolled on the Manatawny Road, with companies covering the roads down to the

river. Lacking tents, Howe's troops gathered brush and cannibalized fences to build makeshift shelters they called wigwams.

Washington assessed his situation while his army camped at Trappe, Schwenksville, Skippack, and Methacton. Soldiers sheltered in any available structure, including churches. Others helped themselves to whatever they found in local barns, deepening the rift between the army and the many pacifists in rural Pennsylvania. The army had suffered many setbacks over the previous month. The British had driven the army off the field at Brandywine, bloodied Wayne's column at Paoli, and now occupied Philadelphia. Yet the rank and file, for the most part, remained in high spirits and had reason for optimism. Although beaten, the Main Army remained a potent fighting force. The efforts to deny materiel, livestock, and other foodstuffs had been effective, though not entirely successful. Howe had captured some supplies at Valley Forge, but magazines at Warwick Furnace, Reading, Lancaster, and other towns remained intact and accessible. Howe had dispatched troops to the Delaware to reduce the American forts, weakening his force. He could neither reinforce nor resupply his army so long as Washington's army remained in the field and the rattlesnake flag flew over the Delaware River forts. Washington, conversely, could depend on secure, interior lines of communications, access to inland magazines, and reinforcements from elsewhere. On 26 September, General McDougall arrived from the Highlands with four regiments of Connecticut Continentals. Moreover, the war was going well elsewhere. On 28 September, riders brought news from the Northern Department: General Horatio Gates's army had beaten back an enemy probe at Freeman's Farm in New York.

In a council of war, Washington discussed the army's options. Generals Smallwood, Armstrong, and David Forman pressed for an immediate attack before their militia regiments had to return home. Other generals urged the commander in chief to await reinforcements. Washington decided to strike the enemy on 4 October. He ordered the newly appointed cavalry chief, Pulaski, to reconnoiter roads between Whitemarsh and Germantown, and Generals Joseph Reed and Cadwalader to scout the western approaches to Germantown through the Wissahickon Valley.

In the days that followed, Washington formulated a bold plan to surprise Howe and force his advance camp to retreat, much as he had done at the Battle of Trenton. Four columns under Armstrong, Sullivan, Greene, and Smallwood would converge on Germantown from the northwest, in a coordinated predawn attack against the garrison there (*Map 7*). James Irvine, newly promoted brigadier general in the Pennsylvania Militia, would march a fifth column to the Middle Ferry across the Schuylkill River from Philadelphia. There, he was to harass the *23d Foot*, if possible. The two columns under Greene and Sullivan constituted most of the assault force, those of Irvine and Armstrong numbered less than 1,800 soldiers. The Maryland and New Jersey militia under Smallwood, Gist, and Forman numbered about 1,700. Armstrong and Sullivan were to march east down the Manatawny Road, and Greene and Smallwood were to use the Skippack Road. At Barren Hill, Sullivan would move to the Germantown Road, where the two routes intersected, and assault the British camp from the northwest. Greene and Smallwood would proceed on a parallel route down the Skippack Road to the Church Road where Greene would turn his column south, and form into line to strike Howe's camp from the north. Smallwood would then continue to the York Road and block any forces that he found there. Armstrong would march down the Manatawny Road from his camp at Trappe, assaulting Stirn's camp from the southwest of the American advance. Local troops guided the columns. Washington ordered the army to prepare two days of cooked rations and forty rounds per soldier. Despite his eloquent motivational speech to his troops that, if successful, they could retake the city, he had no serious plan to do so, as he left his baggage trains and heavy artillery behind at Pennypacker Mills.

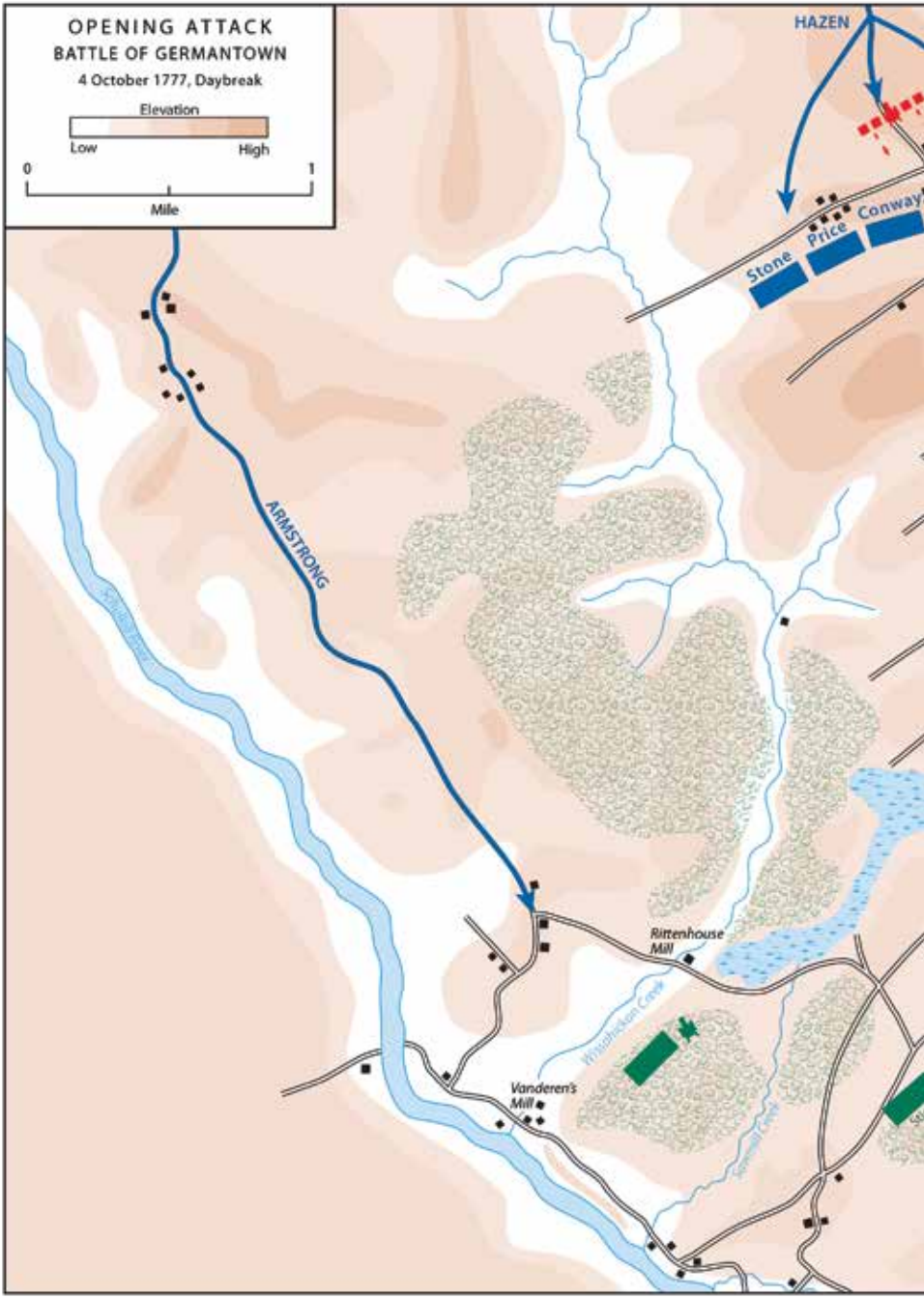
Early on the evening of 3 October, Dr. William Smith, an Anglican minister who was provost of the Academy of Philadelphia, leaked news of the coming American attack to Captain Ewald, who had taken post at the mouth of the Wissahickon. Ewald reported the intelligence to General Howe; barricaded the bridge with any lumber

he could find, including pieces of furniture; and placed his jaegers on high alert. Howe alerted the light infantry pickets near Lukens Mill on the York Road and at Mount Pleasant on the Germantown Road. The commanders of the three outposts sent patrols up each of the main roads that evening.

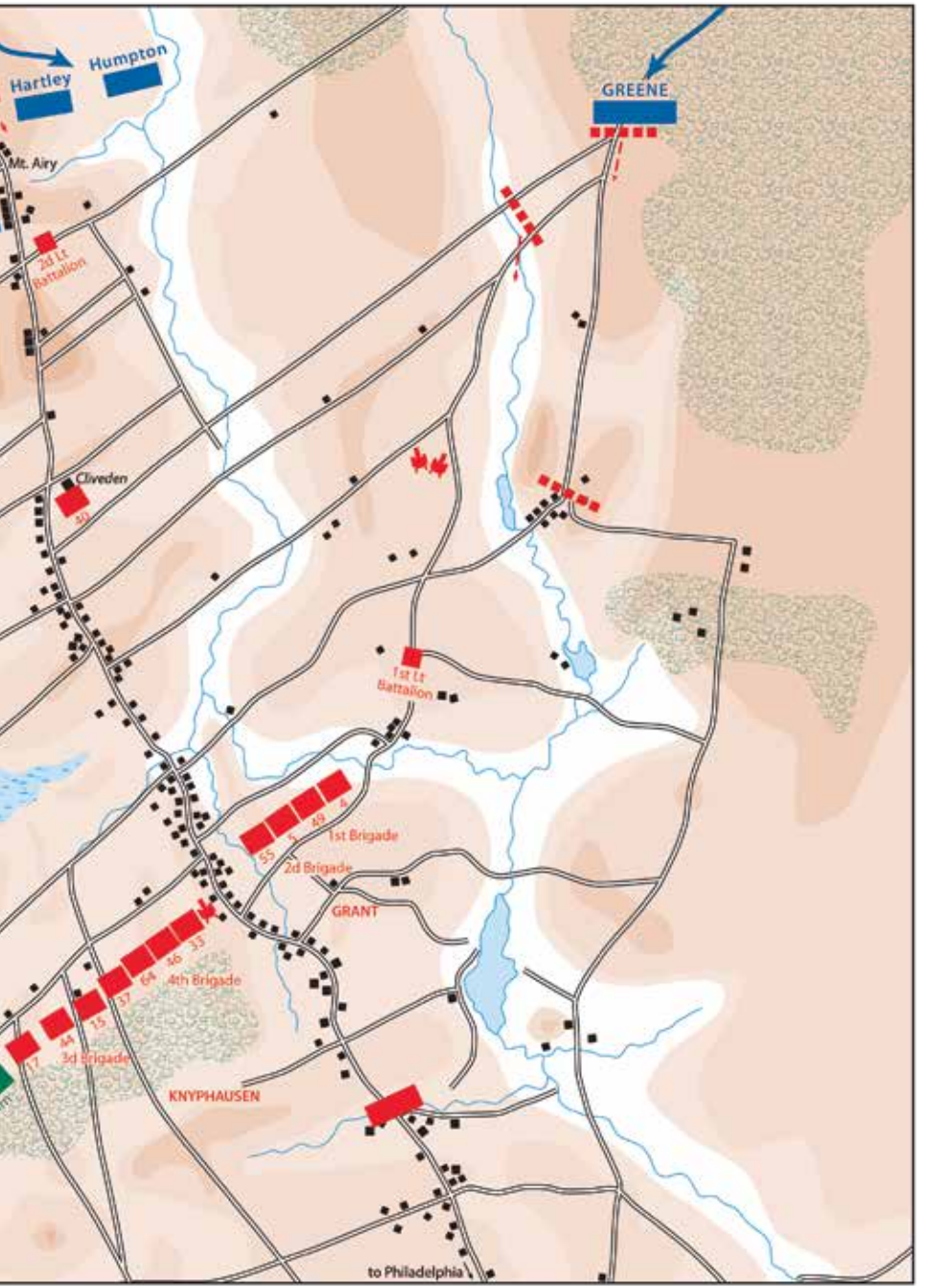
The Pennsylvania Militia had little trouble reaching Germantown. Led by troopers of the Philadelphia Light Horse, Armstrong marched the much-weakened battalions of Potter's Brigade, including Colonel Dunlap's Cumberland County riflemen, and Col. Jehu Eyre's Philadelphia Artillery from his camp at Trappe down the Manatawny road. Col. John Moore's 2d Battalion, Philadelphia County Militia, composed part of Potter's Brigade. His soldiers were mostly residents of Germantown and the adjacent Springfield and Roxborough Townships, and were marching toward their homes. About 3 miles from Armstrong's objective, a mounted jaeger from Wurmb's battalion spotted the head of his column. He quickly rode back to camp and reported the sighting.

Several miles to the east, Smallwood led the Maryland and New Jersey militia down the Skippack Road, while Greene's column followed Smallwood. Eighty soldiers of the Pennsylvania State Regiment led Greene's march, followed by the newly arrived brigade of Connecticut Continentals under McDougall, and Weedon's and Muhlenberg's brigades under Stephen. Instead of staying on the Skippack Road, Greene's guide turned north, onto a parallel road, away from Sullivan's line of march. By the time the guides realized their mistake and Greene ordered the column to turn around, he had lost valuable time. The delay would have a telling impact on the outcome of the battle.

Late in the evening, one of Smallwood's scouts became lost on the Limekiln Road, where a patrol from the *1st Light Infantry Battalion* captured him. The redcoats sent the prisoner to General Grant at his headquarters at 0400, but an aide neglected to wake Howe. Grant or Abercromby ordered the *1st Light Infantry* under arms, but not the *2d Light Infantry Battalion* on the Germantown road. Major Maitland nevertheless sent out patrols that evening as far as the little stone church at Whitemarsh, where Wissahickon


OPENING ATTACK
BATTLE OF GERMANTOWN
4 October 1777, Daybreak
Elevation
Low
High
0
1
Mile
HAZEN
Stone
Price
Conway
ARMSTRONG
Rittenhouse Mill
Wissahickon Creek
Vanderen's Mill

Map 7


Hartley
Humpton
GREENE
Mt. Airy
2d Lt Battalion
Cliveden
49
1st Lt Battalion
55
5
49
4
1st Brigade
2d Brigade
GRANT
64
46
33
4th Brigade
37
15
44
17
3d Brigade
KNYPHAUSEN
to Philadelphia

Creek flows between two hills near the intersection of the Skippack, Bethlehem, and Church Roads.

Washington accompanied Sullivan's column. Led by Conway's Brigade and the Maryland Brigade, with Wayne, Maxwell, and Stirling following, the column stepped out at 2000 on 3 October (*Map 8*). Instead of taking the Manatawny Road prescribed by orders, Sullivan's troops marched down the Skippack Road. Consequently, the two largest columns, Greene's and Sullivan's, marched down the same road for much of the night, further slowing their march. When Sullivan's column reached the Whitemarsh church, some of his soldiers brought in a straggler from one of Maitland's patrols. Sullivan ordered a brief rest and issued a rum ration. He then ordered a body of soldiers to try to intercept the patrol while he and Col. Timothy Pickering, Washington's Adjutant General, interrogated the prisoner. Having learned that the British had returned to camp, Sullivan then ordered his soldiers back on the march, continuing south down the Bethlehem Road to Chestnut Hill, and from there to the Germantown Road.

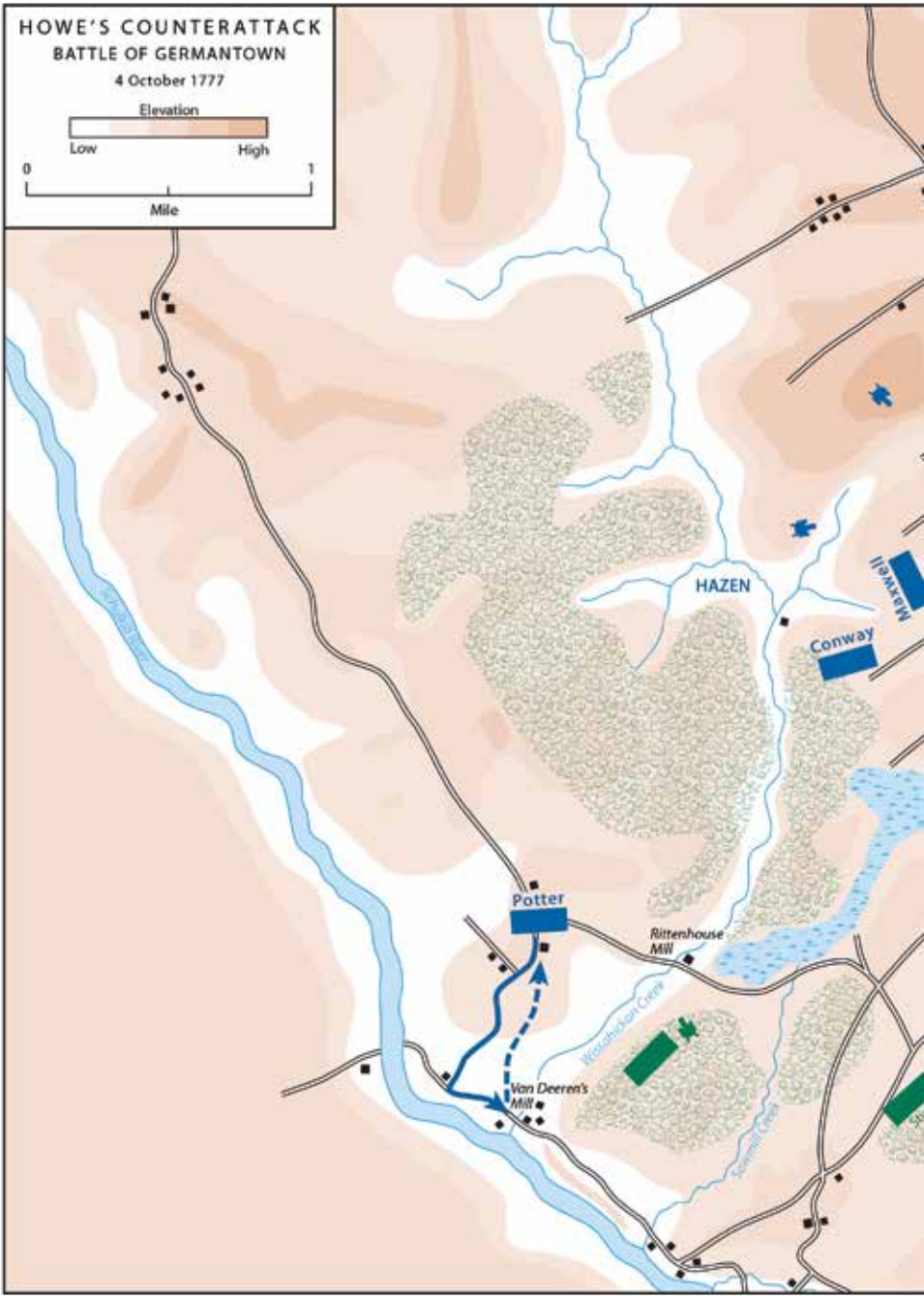
The Pennsylvania regiments comprising Conway's Brigade had not been at Paoli. Nevertheless, many felt a strong desire to avenge Wayne's defeat. At 0500, just as the sun rose, Conway's brigade marched down the southeast slope of Chestnut Hill through two small hamlets known as Cresheimtown and Beggarstown. Spotting the light infantry outpost at Mount Airy, Sullivan dispatched the 6th Pennsylvania Regiment and the 4th Maryland Regiment, along with a detachment of the 4th Continental Light Dragoons, recruited mostly from Pennsylvania. Conway ordered a volley. Dense fog soon engulfed the combatants, adding to the smoke from their muskets, as infantrymen fixed bayonets, dragoons drew sabers, and redcoats peppered their opponents with musketry and shot from their two cannons.

A chance event worked against the American assault. About 4 miles to the south, Capt. Levin Friedrich Ernst von Münchhausen rode on the Germantown Road toward Philadelphia on his way to deliver dispatches. Hearing the guns, he hastened to warn Cornwallis. The earl ordered his grenadiers under arms to reinforce

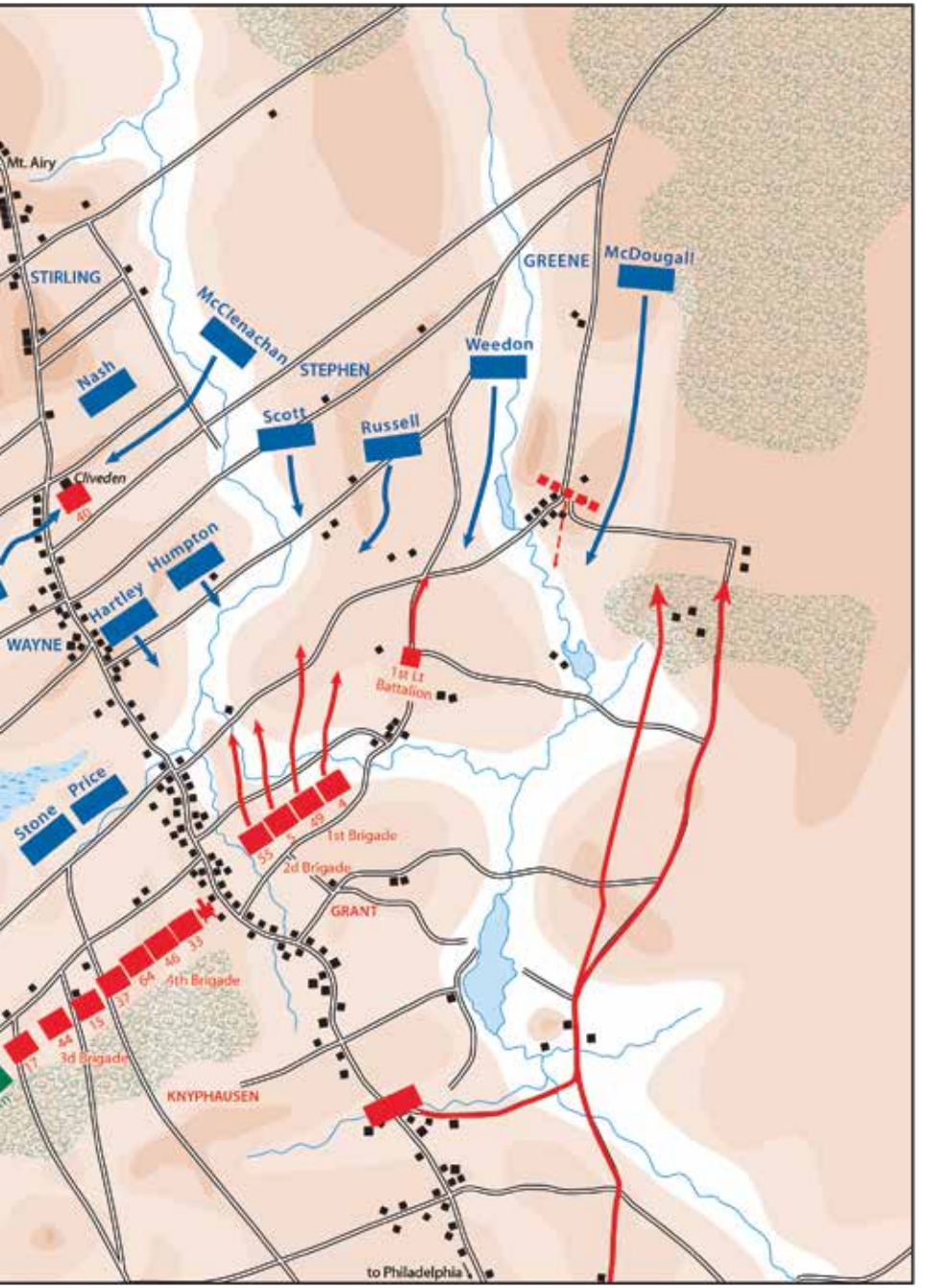
Vanderen's Mill (Shoomac Park), one of the earliest grist mills in Pennsylvania, located on Wissahickon Creek. (*Library of Congress*)

Howe while Münchhausen rode back to Germantown to find the British commander.

At about the same time that the German captain heard the firing at Mount Airy, Armstrong's militia arrived at the Wissahickon 2 miles to the south. Rifle shots cracked through dense fog that blanketed the gorge, as jaegers made their presence known. Steep cliffs rose almost 200 feet to Armstrong's left. To his front, Ewald's jaegers had blocked the bridge across the creek with lumber and furniture. Wurmb led his battalion to contest the crossing. Eyre's and Armstrong's riflemen returned fire, exchanging shots with Ewald's jaegers across the waters of the creek. Troopers of the Philadelphia Light Horse took a German officer prisoner as Wurmb retreated to the high ground on the east side of the creek. Armstrong's instructions were to assault as far as Joseph Warner's property, which stood in the middle of Stirn's camp. Despite poor visibility, Armstrong soon realized the futility of the situation. To reach Warner's property, he would have to cross the creek under fire and advance up a draw with ground held by a brigade of now-alerted Germans. Armstrong withdrew to high wooded ground overlooking the bridge, where his soldiers exchanged fire with the enemy. Leaving Dunlap and


HOWE'S COUNTERATTACK
BATTLE OF GERMANTOWN
4 October 1777
Elevation
Low
High
0
1
Mile
HAZEN
Conway
Maxwell
Potter
Rittenhouse Mill
Van Deeren's Mill
Wissahickon Creek
Schuylkill River

Map 8


Mt. Airy
STIRLING
McClenachan
STEPHEN
Nash
Scott
Russell
Weedon
GREENE
McDougall
Cliveden
40
Humpton
Hartley
WAYNE
1st Lt
Battalion
Stone
Price
55
5
49
4
1st Brigade
2d Brigade
GRANT
33
46
GA
37
15
44
17
4th Brigade
3d Brigade
KNYPHAUSEN
to Philadelphia

Cliveden, Chew Mansion, Germantown (*Library of Congress*)

Eyre to keep Wurmb engaged, he rode back to headquarters to request reinforcements.

Back on the Germantown Road, Conway ordered his brigade from column into line, moving into the fields on either side of the road. The vengeful Pennsylvanians quickly overwhelmed the light infantry. They used bayonet and saber freely and drove the redcoats into Germantown in a running fight, with cries of "have at the bloodhounds!" and "revenge Wayne's affair" echoing in the early morning fog. A vicious fight ensued as the light infantry charged with bayonets, retreated, then charged again as Conway fed more troops into the battle. Firing volley after volley, the Pennsylvania troops expended their allotted forty rounds, then waited while officers and sergeants brought up another supply from Stirling's Division. On the right, the Marylanders pressed forward, while on the far right, Wayne's Pennsylvania brigades under Col. Thomas Hartley and Humpton, veterans of the bloody Battle of Paoli, showed no remorse and gave no quarter.

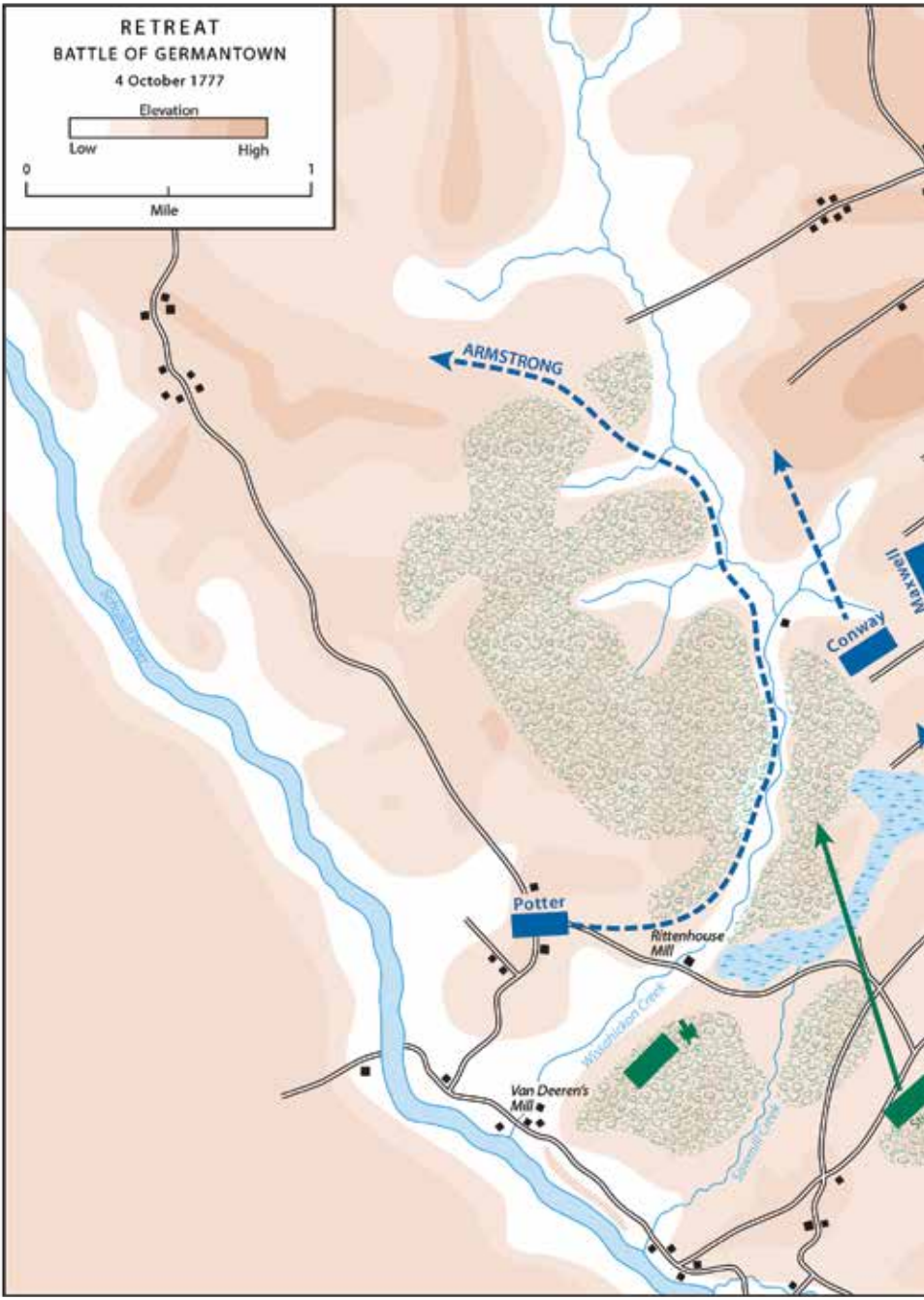
Roused by the sound of firing 2.5 miles away, General Howe mounted his horse. Near the main British camp, he saw to his great

surprise the light infantry retreating before Sullivan's and Wayne's divisions. He ordered them to form in line next to two British regiments, the *5th* and the *55th Foot*, which had marched from their camp east of High Street and headed north to engage Wayne's Continentals. As the light infantry, now joined by reinforcements from the *5th Foot*, approached the *40th* camp at Cliveden, Colonel Musgrave ordered a volley, then directed three companies of the *40th*, numbering about 100 soldiers, into the mansion. His gunners fired a parting round from their two 6-pounders. One ball killed Maj. James Witherspoon and tore off General Nash's leg as he rode up High Street. Inside Cliveden, the redcoats shuttered windows and barricaded the doors, turning the house into a makeshift fort.

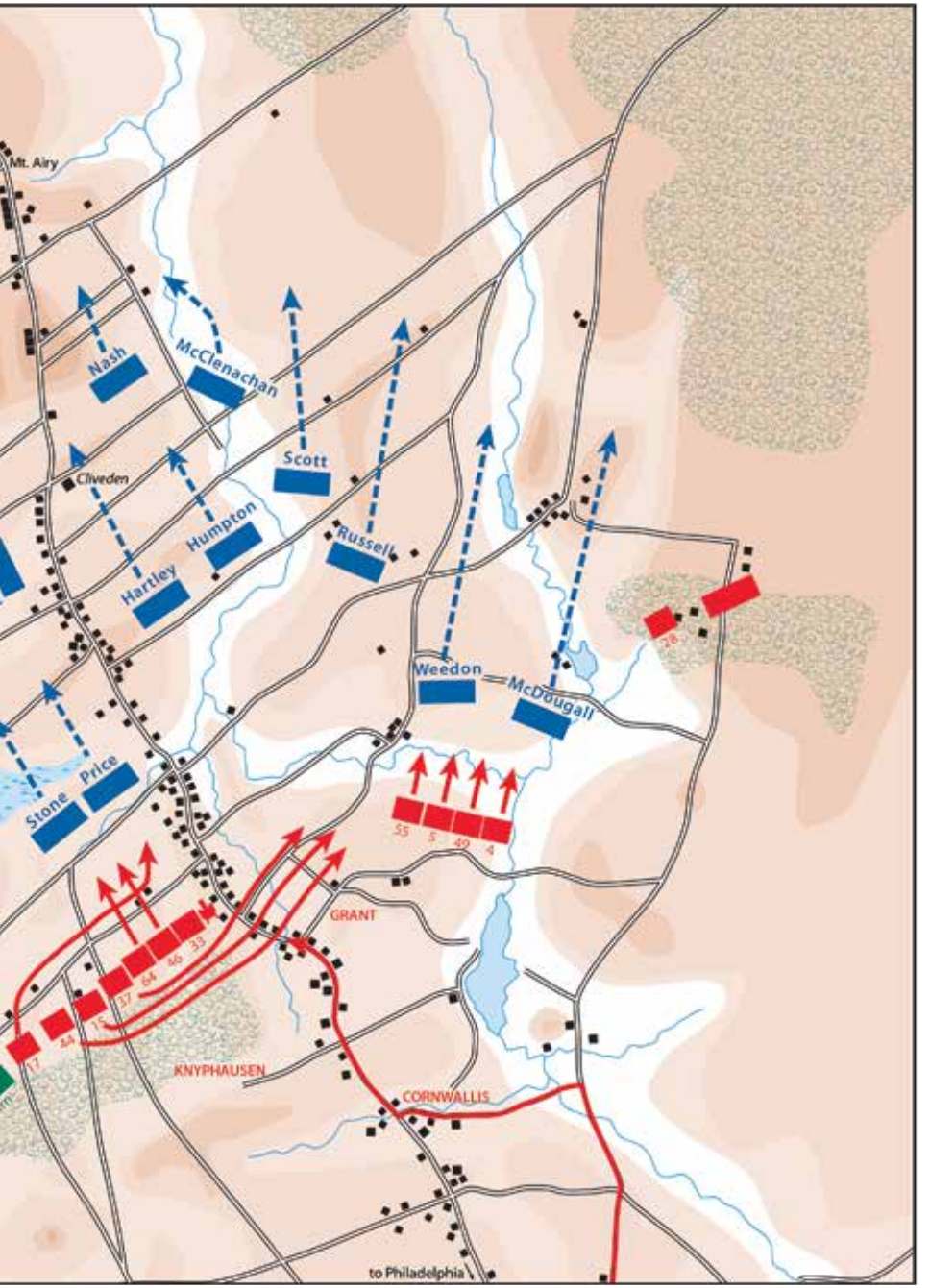
The Continentals continued to advance on Germantown, their assault slowing as they came upon enclosed yards, gardens, and orchards. The retreating light infantry made good use of the cover, keeping up a running fight. Heavy fog combined with smoke from muskets and cannons reduced visibility to a few yards. Behind Conway, Wayne pushed his division down the road, which became High Street as it entered Germantown, and deployed to the east of Cliveden as Sullivan formed his line to the west, across the street. Wayne fired a few volleys into the mansion and marched on. Conway wheeled his brigade around the mansion and fell in behind Sullivan. The line advanced, pushing stragglers from the light infantry before it as far as Mackinett's Tavern, about a half mile north of the main British camp.

Washington by this time had arrived with his staff, occupying temporary quarters at Michael Billmeyer's House on High Street, 170 yards north of Cliveden. He ordered Nash's Brigade to support Wayne, and Maxwell's brigade to support Conway. Observing that Sullivan's column was firing too many rounds, he ordered Pickering forward to order them to slow their rate of fire. As the Adjutant General rode past Chew's mansion, bullets whizzed by his ear. Pickering spurred his horse, ordered a nearby section of Procter's artillery to concentrate fire on the front of the house, and reported the enemy position back to headquarters.

Washington convened a council of war. Knox, the only general officer in the room, advised against leaving the defended mansion


RETREAT
BATTLE OF GERMANTOWN
4 October 1777
Elevation
Low
High
0
1
Mile
ARMSTRONG
Conway
Potter
Rittenhouse Mill
Van Deeren's Mill

Map 9


Mt. Airy
Nash
McClenachan
Scott
Cliveden
Hartley
Humpton
Russell
Weedon
McDougall
Stone
Price
28
55
5
40
4
GRANT
64
46
33
37
44
17
KNYPHAUSEN
CORNWALLIS
to Philadelphia

in the army's rear. Several junior officers countered, proposing that Washington place a regiment to monitor the light infantry inside the house while the army advanced through the objective. Washington deferred to his artillery chief, then decided to demand Musgrave's surrender. He ordered Pickering's deputy, Lt. Col. William Stephens Smith, to parley under a flag of truce. Redcoats inside the house fired on Smith, mortally wounding him.

Washington next decided to take the house by storm (*Map 9*). He ordered Maxwell's and Nash's brigades to halt their advance. Maxwell's brigade took position across High Street from the mansion. Two of his regiments joined Procter's gunners to fire on the house and suppress the British fire, as did Nash's Brigade, positioned to the north. His other two regiments formed into columns and advanced up the driveway. Ten times the Continentals charged, and ten times British musketry poured down on the attackers, killing or wounding eight officers and about thirty-eight enlisted troops. Procter moved a 6-pounder up to within 100 yards of the house. His gunners blew the front door off its hinges but did little damage to the mansion's thick walls of Wissahickon schist. Some New Jersey soldiers who charged the door and windows of the house were met by enemy light infantrymen who thrust bayonets through the shutter slats. Du Plessis and Col. John Laurens, with several other officers, next attempted to set fire to the house. Advancing under covering fire, the Frenchman was able to enter the house through one of the lower windows before a redcoat drove him back outside.

Greene meanwhile began his assault on the British right. Greene's column had marched past the church at Whitemarsh and continued southeast on the Church Road. His guides turned the column at the milestone designated in the orders and proceeded south toward Germantown. Wingohocking Creek, with its rocky, wooded banks lay directly in Greene's path. Behind the creek, the ground rose to the fenced backlots of the town. Four roads provided the only easy approach into town. The British pickets, supported by an infantry regiment at each road and a few hundred yards from the main camp, had woods to their backs, and clear fields of fire to the north for several hundred yards. Greene formed his wing

Lukens Mill, later Roberts Mill, ca. 1876, by Robert Newell and Son, Photographers (*author's collection*)

into columns at each road. Smallwood led two brigades down York Road on the east. McDougall marched down the Limekiln Road next to it to the west. Greene accompanied Muhlenberg leading two Virginia brigades under Weedon and Col. William Russell down the Abington Road. On Greene's western flank, General Stephen directed two Virginia brigades under Scott and Col. Alexander McClenachan.

Despite the difficult terrain and zealous defenders, elements of Greene's column attacked vigorously and enjoyed initial success. As it approached the town, McDougall's column of Connecticut troops encountered woods to its left, and rising ground to its right, where a branch of the Wingohocking fed two mill ponds north of Lukens Mill. As the lane took a turn to its right, the lead elements

met the *1st Light Infantry Battalion*, reinforced by the *4th Foot* on their right, behind a rail fence. The Yankees formed into line. Sixteen-year-old Pvt. Joseph Plumb Martin, a soldier in the 8th Connecticut Regiment, later recalled how "they left their kettles, in which they were cooking their breakfasts, on the fires, and some of their garments were lying on the ground, which the owners had not time to put on." Despite Howe's alert, Martin and his comrades had surprised the advanced pickets. The Connecticut soldiers fired and drove the redcoats back through their camp. McDougall pressed his advance and fired several more volleys. Running out of ammunition, he ordered a retreat.

To the east, the Maryland and New Jersey militia marched south down York Road through the fog to Lukens Mill. Here on high wooded ground, the *Queen's Rangers* and some grenadier and light companies manned redoubts supported by four guns. A Baltimore company successfully stormed one of the redoubts. Spotting the green-coated loyalists, Colonel Gist marched part of his brigade into some woods on the east of the York Road to hold them in position. With a smaller contingent, Gist went further east and south to get at their flank. As the Connecticut soldiers withdrew, the New Jersey militia under Foreman's command made a stand at a fence for a time. The New Jerseyans pushed back the redcoats, but running out of ammunition, had to retreat. The retreat turned to panic as they got caught up in the general retreat of the Connecticut brigade. The panic infected the part of Gist's brigade in the woods, and the whole column retreated.

To McDougall's right, Greene advanced down the Abington Road with Weedon's and Muhlenberg's brigades, while to his right, Stephen advanced with Woodford's and Scott's brigades. When the advance spotted a British picket, Stephen detached Col. George Mathews's 9th Virginia Regiment and Maj. William Darke with part of the 8th Virginia Regiment from Greene's division to attack it. These regiments, along with other elements, pushed as far as Market Square in the heart of Germantown. The Scottish-born Stephen counted long service as a surgeon in the *Royal Navy*, as a Virginia provincial officer in the Seven Years' War, and as a division

Old Mennonite Meetinghouse, Germantown (*Library of Congress*)

commander at the Battle of Brandywine. The recent campaigns had taken their toll on his well-being. On this day, he was drunk. As his division reached the outskirts of Germantown, its lead elements heard gunfire to the south and west, and soon spotted Cliveden through the fog. Scott's brigade marched past the mansion to its east. Woodford's brigade advanced from the north, firing artillery at the British strongpoint, and ran into the North Carolina, New Jersey, and Maryland troops then assaulting the mansion. When the British *5th* and *55th Foot* appeared out of the fog between Greene's division and Stephen's, Stephen charged them at bayonet point. Wayne, hearing heavy fire to his rear, ordered a countermarch. As he advanced back toward Cliveden, Scott's advancing troops mistook Wayne's blue-coated Pennsylvania troops for Germans and fired

on them. Wayne's troops returned fire and began to break. In the confusion, the drunken Stephen ordered his soldiers to stop, then beat a retreat.

Howe rallied the reformed forces under his command. British troops pushed back toward the Americans that had reached High Street. The brigades of Grey and Agnew attacked Sullivan as the latter's division ran out of ammunition. Cornwallis arrived from Philadelphia with the grenadier brigades and formed in the center of a line facing northwest across High Street, roughly parallel to School House Lane and running from *Stirn's Brigade* on the left to Grant and Agnew on the right. Grant mounted a pursuit of Greene's troops with the reformed *3d Brigade*. Terrain and topography now hindered the British counterattack. As the line advanced, the fenced-in gardens and close-packed buildings of Germantown funneled the British attack up High Street. *Stirn's Brigade*, with the Wissahickon gorge to its front, could not move forward until the other British brigades moved out of town and into line in front of him. Behind the advancing *3d Brigade*, General Agnew advanced up High Street from the center of town at the head of the *4th Brigade*. Here, the Virginia troops ordered forward by Stephen formed in the street near the Mennonite Meetinghouse and fired a volley, mortally wounding Agnew. At Market Square, Mathew fought at the head of his regiment, receiving several bayonet wounds before surrendering. As the advancing British reinforcements overran his position, Musgrave now sortied from his fortified stronghold. His troops formed and fired into the backs of the retiring Maryland brigades. The Maryland soldiers stopped their withdrawal, made ready, faced about, presented, and fired a volley that checked the redcoats.

Howe accompanied Cornwallis in his pursuit of Sullivan's retreating column, while Grant nipped at Greene's column marching along the Church Road. The latter took a position on a hill west of the Whitemarsh church, across the Wissahickon. The British grenadiers in Howe's column pursued as far as Chestnut Hill, where they broke off the chase. As Sullivan's column reached the Whitemarsh church, Wayne ordered Colonel Bland to post his dragoons in a line. He then ordered a battery from Stephen's division to the western hill. As

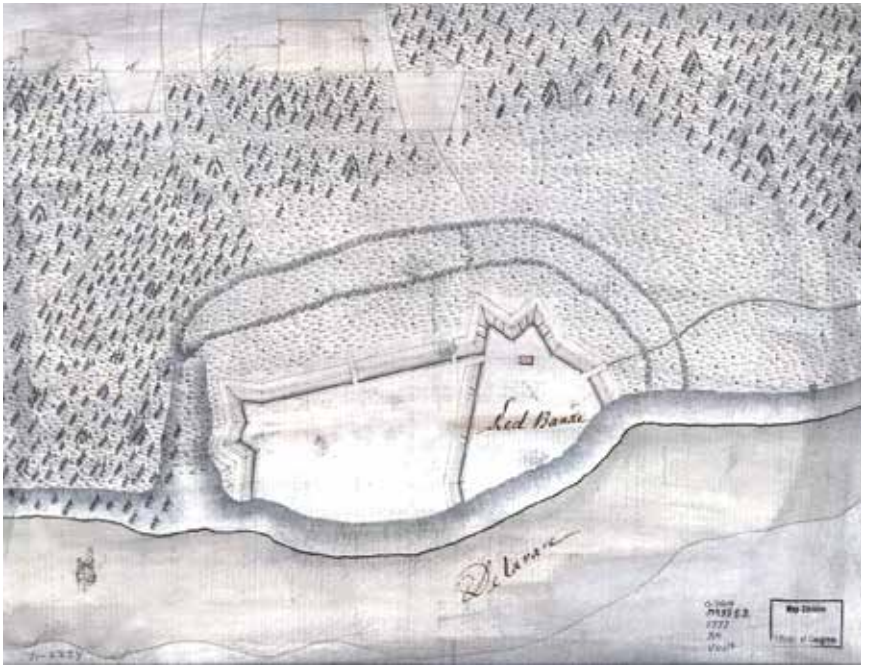
Grant reached the crossroads, the Continental gunners fired. Facing the prospect of attacking Continentals on ground of their choosing, the British general evidently lost his nerve. Grant's column retired to Germantown.

Down at the mouth of the Wissahickon, Armstrong marched his troops across the front of *Stirn's Brigade* on the other side of the creek and high above them. His tiny column wound up the Wissahickon Valley, moving quickly to avoid the artillery crossfire put down by German and British gunners. Stirn, now free to pursue as Howe and Cornwallis pushed out of town, chased Armstrong about 3 or 4 miles through the gorge to an open field, where Armstrong engaged him for 45 minutes. His ammunition low, Armstrong broke off the fight and retreated to Trappe.

Washington marched his army back to its camps, where it would remain for the rest of the month. His army had suffered 152 killed, 521 wounded, and nearly 438 captured. General Nash died of his wound a few days later. A subsequent court-martial found Stephen guilty of drunkenness and dismissed him from the army. The Battle of Germantown, which had started with so much promise for the Continental Army, had ended in another retreat. The army nevertheless remained intact and stood between Howe and Congress, its important depots, and garrisons further to the north. The intensity of Washington's attack shook Howe, whose army lost 71 killed, 448 wounded, and 14 missing or captured. In the following weeks, the British destroyed bridges and other important buildings and withdrew behind the Philadelphia defenses just north of the city proper, leaving northern Philadelphia County and control of the four main roads out of it to the revolutionaries.

Defense of the Delaware, 6–22 October

The final, critical action of the Philadelphia Campaign now began. On 4 October, Captain Hamond of HMS *Roebuck* offered surrender terms to Commodore John Hazelwood of the Pennsylvania Navy. Hazelwood gallantly refused. Two days later, sailors of HMS *Eagle*, Admiral Howe's flagship, dropped anchor off Chester. The two sides



Fort Mercer, ca. 1777 (*Library of Congress*)

exchanged gunfire almost daily as *Royal Navy* sailors tried to drag the chevaux-de-frise and other obstructions out of the channel, while land and naval forces fought to reduce the American forts. British soldiers and civilians from Philadelphia built four batteries at Webb's Ferry, the Pest House on Province Island, and Carpenter's Island. A fifth redoubt, near the Blakely house on Carpenter's Island, interdicted traffic on the road to Philadelphia. The defenders responded with fireships, gunnery, and reinforcements from the Main Army, Pennsylvania, and New Jersey.

After a few days, the logistical problems both sides faced began to tell. The British fired reduced charges sporadically and with diminished effect. On 7 October, American spies in the city reported the lack of powder to Colonel Smith, who had ammunition shortages of his own. In addition to low powder supplies, his 175 soldiers, now augmented by Bradford and the 4th Regiment, Philadelphia Militia, lacked adequate clothing. By 16 October, Smith would report

thirty-four unfit for duty, with the others showing the effects of extreme fatigue.

Washington was determined to hold the fort. The next day, he ordered the 200 soldiers of Col. John Green's 6th Virginia Regiment to reinforce Smith. For the fort's defenders, another glimmer of hope had arrived on 14 October in the person of Maj. François de Fleury. An energetic officer, Fleury spent the next five weeks improving the fort's defenses, often under fire and often at night, rebuilding sections of the fort that enemy fire had destroyed during the day. Bearing a cane, with which he sometimes thrashed cowering soldiers, Fleury kept the fort in action.

Batteries completed, the enemy opened a bombardment on 15 October at 0700. Low on ammunition, the British gunners fired one round an hour, choosing their targets carefully. Higher-than-usual tides flooded the British redoubts. Dissatisfied with the slow progress, General Howe moved his headquarters from Germantown to Philadelphia and took personal command of the situation on the Delaware. He planned a naval attack on Fort Mifflin, and a land attack on Fort Mercer.

By that time, Fleury could report some success in raising Fort Mifflin's bastions above the high-water mark, and relief for Smith's beleaguered garrison appeared near. The 1st and 2d Rhode Island Regiments under Col. Christopher Greene, a veteran of the ill-fated assault on Québec, and Col. Israel Angell marched as part of James Mitchell Varnum's brigade from northern New Jersey on 1 October 1777. Although the two regiments did not yet contain the majority of African soldiers that they would later in the war, they did carry significant numbers of people of color, both African and indigenous, on their rolls. On 7 October, the brigade crossed the Delaware and was prepared to camp in Bucks County, Pennsylvania, when Washington ordered it to proceed to Fort Mercer, with instructions to coordinate the river defenses with Colonel Smith and Commodore Hazelwood. Washington ordered du Plessis to Fort Mercer, and dispatched Colonel Hamilton to ask General Newcomb to send some of the New Jersey militia. The Rhode Island regiments were marching through Bucks County in heavy rain, when an express

rider arrived with orders for Angell to report to the Main Army with his regiment. Colonel Greene marched ahead with his soldiers and arrived at the fort on 11 October. In addition to the 1st Rhode Island, gunners of Capt. David Cook's Company, 3d Continental Artillery, manned the fort's fourteen guns. Capt. Felix Fisler's Company, 2d Gloucester County Militia, with several detachments numbering about 150 soldiers, camped outside the fort. That gave Greene 425 troops. On 14 October, Washington ordered him to send any soldiers with seafaring experience to Commodore Hazelwood. Accordingly, Greene dispatched Maj. Simeon Thayer and 149 soldiers of the 2d Rhode Island to Fort Mifflin. Although the soldiers would return in a few days, a troubled Greene issued muskets to his drummers and drilled them in their use to get the most out of every soldier in his garrison.

Unlike Fort Mifflin, Fort Mercer sat on a bluff about 40 feet above the Delaware, on the farm and orchards of James Whitall. About 350 yards long, the fort had been designed by Thaddeus Kościuszko, for a garrison of 1,500, or three times the number of Greene's contingent. At du Plessis's direction, Greene ordered his troops to build a breastwork across part of the fort, leaving the northern end undefended. On the day of the battle, Greene posted a few sentinels there, for deception and observation. Fleury advised Greene to improve the moat and add fraises and abatis. Soldiers cleared a field of fire extending 400 yards to the north and east of the fort.

The Pennsylvania Navy controlled the Delaware below Philadelphia, so Howe ordered Hessian Lt. Col. Count Carl Emil Ulrich von Donop to cross the Delaware from Philadelphia to Cooper's Ferry in the predawn gloom of 20 October. Donop commanded an assault force of 1,200, built around grenadier battalions consisting of companies from three regiments, supported by the *Musketeer Battalion von Mirbach*, five jaeger companies under Wurmb, eight German three-pounders, and two howitzers commanded by British Capt. William Downman. From Cooper's Ferry, Donop marched to Haddonfield, New Jersey, and camped. The Hessian brigade resumed its march at 0400 on 22 October, guided by two loyalists. Donop had detained all known members of

the New Jersey militia and sympathizers, but one of the detainees, Jonas Cattell, slipped away and alerted Colonel Greene. At Cattell's warning, Greene ordered his Continentals into the fort. He directed the militia encamped outside the enclosure to drive all livestock in the area from the fort to Woodbury Island, and to harass the enemy, if practicable. Meanwhile, Captain Fisler's company destroyed the bridge over Timber Creek and harassed Donop's column.

At about 1300, Donop formed his troops before the fort. Greene ordered two guns to fire on the Germans. The enemy withdrew to the woods as Donop evaluated the fort's defenses. Organized for a fast assault, he had no scaling ladders, and his artillery lacked the power to breach the stronghold's 9-foot walls, let alone suppress the fire of its guns, or those of the Pennsylvania galleys in the river. Donop put his soldiers to work making fascines, which they could place in the moat to ease their assault. At 1600, the Hessian colonel sent British Maj. Charles Stuart of the *43d Foot* under a flag of truce, demanding the fort's immediate surrender. Lt. Col. Jeremiah Olney met Stuart and refused Donop's demand.

Donop ordered his soldiers to take the fort by storm, taking advantage of the shock troops under his command. Positioned at the edge of the woods, his guns fired several rounds, and his regiments advanced in columns, with the *Grenadiere-Battalion von Lingerke* on the left, the *Musketeer Regiment von Mirbach* in the center, and the *Grenadiere-Battalion von Minnegerode* on the right. Soldiers deployed in front of each battalion, carrying fascines to throw across the moat so that the assault troops could pass. Jaegers provided accurate fire. *Grenadiere-Battalion von Linsing* acted as a reserve and provided security for the artillery. The fort's guns, supported by three Pennsylvania Navy galleys in the river, opened fire before Donop's brigade left the woods. As Hessians formed in the open, American gunners pummeled them until they advanced to within 100 yards of the fort, at which time the defenders fired by volley, breaking up the attack but not stopping it. A few of the enemy reached the parapet before retreating. Meanwhile, Donop led the right column up to the empty part of the fort. Perceiving victory, his troops cheered in their final rush into the fort. Christopher Greene ordered his troops to

hold their fire until the enemy came to within 60 yards, then touched off a volley that crashed into the column, wreaking heavy losses. Some German officers may have rallied their troops for a second charge, but the Yankee musketry proved overwhelming. Donop crumpled into the American abatis, his lower left leg shattered. Lt. Col. Friedrich Ludwig von Minnigerode fell, shot through both legs. After a hot fight lasting 40 minutes, the survivors of the assault battalions rallied around *Grenadiere-Battalion von Linsing* and the artillery. Still under fire from the Pennsylvania galleys and the fort, Wurmb ordered a retreat, leaving 377 dead and wounded, including Donop. Taken prisoner, he died on 29 October. American losses amounted to thirty-six.

The two opposing armies now stood much as they had more than six months earlier. Washington and the Main Army were ensconced in a strong defensive position while Howe and his forces tried to lure him out of it as the two armies fought for limited supplies. Burgoyne had surrendered at Saratoga, and the Delaware forts still flew the rattlesnake flag. As if to underscore the futility of the campaign, on 22 October General Howe submitted a letter of resignation to the Crown.

Fort Mifflin, 23 October–16 November 1777

While the two Rhode Island Regiments spent the rest of the day caring for the wounded, burying the dead, and repairing the fort's works, the attack on Fort Mifflin continued unabated. Capt. Francis Reynolds, commanding HMS *Augusta*, led *Roebuck*, *Pearl*, *Liverpool*, *Merlin*, and the galley *Cornwallis* up the main channel above the lower chevaux-de-frise and, with the shore batteries, opened a heavy bombardment on the fort and the Pennsylvania galleys at 1800. On Province Island, 200 grenadiers stood ready to ferry over the water and take the fort by storm. At 2000, the two sides ceased fire as the flotilla sailed downstream. As they did so, *Augusta* and *Merlin* ran aground. British tars worked through the night to pull the ships off the bar.

The next day, galleys of the Pennsylvania Navy and shore batteries opened a brisk fire as Commodore Hazelwood unleashed fireships

on the trapped vessels, while the crew of the *Roebuck* continued to try to refloat them. Around 1100, *Augusta* caught fire, and by noon the flames had reached the magazine. The ship blew up, sending an enormous mushroom cloud hundreds of feet into the sky. Admiral Howe ordered Hamond to set fire to the stranded *Merlin* to prevent its capture. After removing the crew and lighting fires, *Roebuck* dropped downstream. *Merlin* blew up three hours later. The two hulks burned for several days.

Violent weather pelted the combatants as the battle continued. Death, disease, and desertion thinned the ranks of both sides. Fort Mifflin's garrison stood at less than one-third of its former strength. Fleury had worked miracles, making the post as strong a defense as he could as rain and river water eroded the riverbank and dikes around the fort. British boats rowed back and forth in the channel behind Province and Carpenter's Islands, building new batteries containing much larger 24- and 32-pounders. Expecting an attack at any minute, Hazelwood on 26 October requested the transfer of any soldiers with seafaring experience and directed Colonel Bradford to salvage guns and supplies from the wreck of *Augusta*. On 29 October, British galleys loaded with troops approached the fort. After a cursory exchange of artillery, the galleys withdrew. Potter's militia harassed British wagon trains and cut the dam on Carpenter's Island, forcing the enemy to take more circuitous routes. On 2 November, 100 of the requested mariners marched with Varnum's brigade to Woodbury Island. Varnum also provided 236 soldiers to Fort Mifflin. The Rhode Islanders remained in south Jersey to annoy the enemy's rear and flanks in case of an attack on Fort Mercer.

Washington had to keep General Howe in Philadelphia and the *Royal Navy* and local farmers out of the city. To do this, he needed more soldiers. The Pennsylvania Militia, never a large force, had dwindled to a little more than 1,000 troops. Soldiers had to rotate out of the forts every two days. He asked Gates in the Northern Department to send reinforcements. Until those troops arrived, Washington had to shorten his lines. On 2 November, he marched his army southeast to occupy a new defensive line north of Philadelphia to effectively surround the city. He chose

high ground, extending for 7 miles from Edge Hill on the east, straddling the main roads out of Philadelphia past the stone church at Whitemarsh, to Barren Hill on the west. Further east, Pulaski patrolled the vicinity of Frankford with a brigade of dragoons. Washington established his headquarters at the home of George Emlen, 1.5 miles from the stone church at Whitemarsh. From his new lines, Washington carried out raids in the area between the two armies.

The battle for the Delaware staggered toward its bitter end. Varnum ordered his soldiers to erect a battery on Mantua Creek in New Jersey on 4 November and told Capt. James Lee, 2d Continental Artillery, to place an 18 and a 12-pounder there to contest a British run up the river. On 5 November, the artillerists at the battery succeeded in driving off *Isis*, *Pearl*, and *Cornwallis*. As the rain abated on 7 November, temperatures plunged. American scouts and spies reported that increased mounted patrols were on the roads to and from Philadelphia, that wagons were growing scarce in Philadelphia, and that the British had built improved bridges across the Schuylkill. British ships based at New Castle and Reedy Island sailed up to Chester and Marcus Hook. Their sailors readied launches and small craft of all types. Potter reported more ships in the upper Delaware Bay, containing the 3,000 reinforcements that Howe had requested weeks earlier.

On the morning of 10 November, British guns on Province and Carpenter's Islands unleashed an intense fire on Fort Mifflin, wounding both Smith and Fleury. Over the nights of 11–13 November, Varnum transferred Lt. Col. Giles Russell and the 4th and 8th Connecticut Regiments into the fort to relieve Smith and the surviving Virginia Continentals. Conditions had grown nearly intolerable. The defenders had barely any shelter, save a small corner of the fort outside the south wall, nor could they sleep. Private Martin, in the 8th Connecticut, recalled that "it was utterly impossible to lie down to get any rest or sleep on account of the mud, if the enemy's shot would have suffered us to do so." A sick and exhausted Russell requested a replacement. Varnum placed Simeon Thayer of the 2d Rhode Island in command. Gale force winds blew from the

northwest, rendering passage by the fort difficult for the *Royal Navy* and favoring the Pennsylvania galleys. The British batteries kept up their fire, and the fresh replacements answered in kind. Washington considered a feint against Howe's main line. Other officers, such as Wayne, suggested a direct assault on the batteries raking the fort. Washington decided against an attack until reinforcements from Gates arrived.

Time ran out. On 15 November, the wind shifted to a westerly breeze, enabling two British ships, *Vigilant* and *Fury*, to enter the west channel to cannonade the fort's weakest side. In the main channel, HMS *Somerset*, accompanied by *Pearl* and *Isis*, ran past the fort, surrounding it as the shore batteries pounded its walls into the river. The gunners at the fort defiantly fought on, but with powder supplies nearly exhausted, their fire grew sporadic. As the British warships drew to within a few feet of the fort, marines in the crosstrees fired down on the fort's garrison, dropping grenades into it from the yardarms. The defense grew hopeless. Late in the afternoon, the British broke off the attack to repair damage and treat their wounded. Having expended the fort's powder supply completely, Thayer determined to save the lives of his garrison. The wounded Fleury ordered the defenders to destroy or dismantle the fort's stores. Leaving the color flying, Thayer and his soldiers left Fort Mifflin during the early morning hours of 16 November 1777. A few hours later, Lt. Col. Sir George Osborn, who was to lead the final assault, entered the smoking ruin, lowered the rattlesnake flag, and raised the king's colors. Montresor set his troops to work building a battery for 32-pounders to contest the still-active Pennsylvania Navy, should it try to interfere with the removal of the chevaux-de-frise.

On 18 November, Howe dispatched Cornwallis with 5,500 troops to capture Fort Mercer (*Map 10*). Washington answered with a relief column led by General Greene and the recuperated Lafayette. Two days later, before the column arrived, the outnumbered defenders evacuated and blew up the fort. Cornwallis reembarked to return to Philadelphia on 24 November. Lafayette harassed his rearguard with about 300 Continentals and militia, driving the redcoats and Germans back to their ships in a spirited pursuit that impressed Washington.

With Fort Mercer reduced, Hazelwood ordered the remaining ships of the Pennsylvania Navy upriver and burned them on 21 November, leaving the Delaware undefended. Leslie's 3,000 reinforcements landed at Philadelphia. On 22 November, General Howe ordered his soldiers to burn several houses up to 4 miles north of his lines at Philadelphia to deny them as shelter for the revolutionaries.

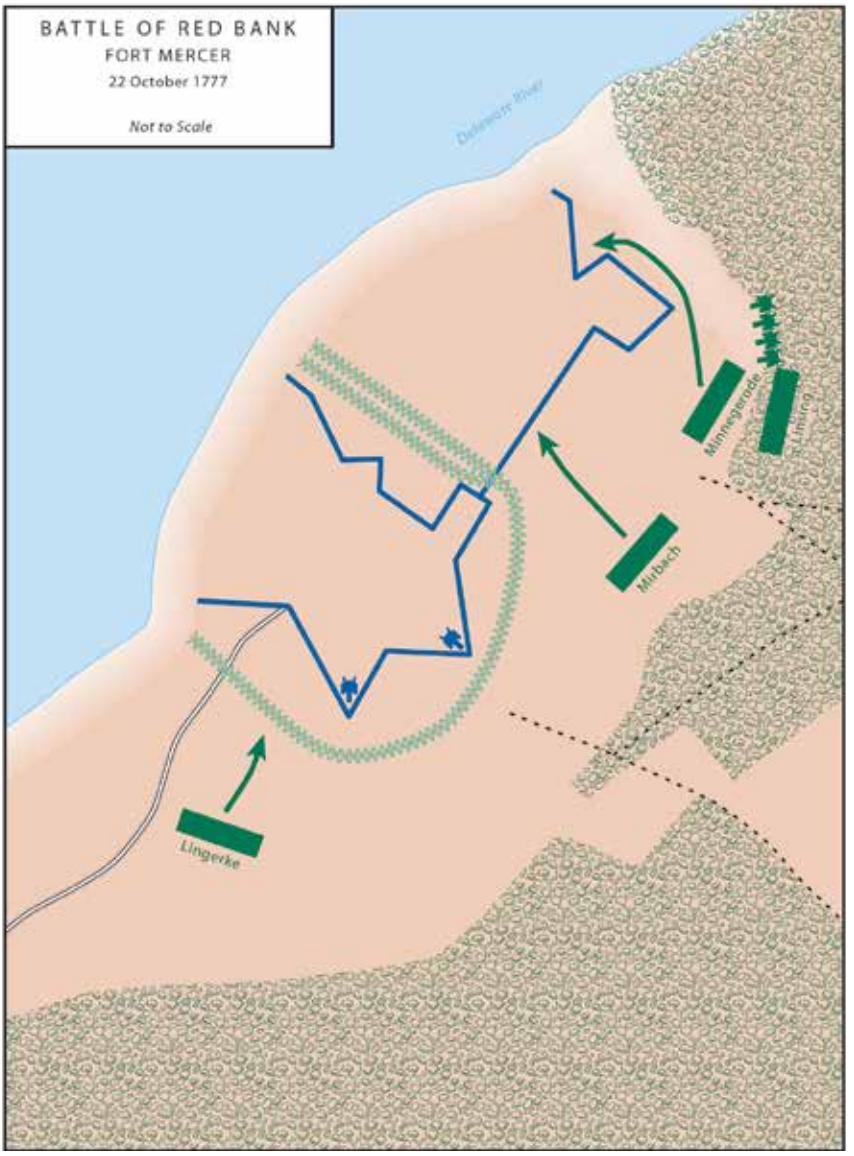
Chestnut Hill and Edge Hill, 5–7 December 1777

With the prospect of stalemate looming, Howe resorted to one last sortie. He returned to the tactic that he had used with little success in New Jersey the previous summer. Two columns, about 10,000 soldiers, were to advance against Washington's position at Whitemarsh. Howe ordered General Knyphausen to direct his column at the American center at Whitemarsh, and he himself accompanied Cornwallis, who advanced up the Germantown Road toward Chestnut Hill.

Fortunately for the revolutionary cause, American spies in Philadelphia had forwarded Howe's plans to the commander in chief over the preceding days. One of these spies, Lydia Darragh, was the caretaker of Maj. Benjamin Loxley's house, which had been occupied by British officers. On 3 December, she sent word of the impending British departure. At 2100 the next day, the British marched from Philadelphia. Before daylight on 5 December, advance elements occupied the summit of Chestnut Hill.

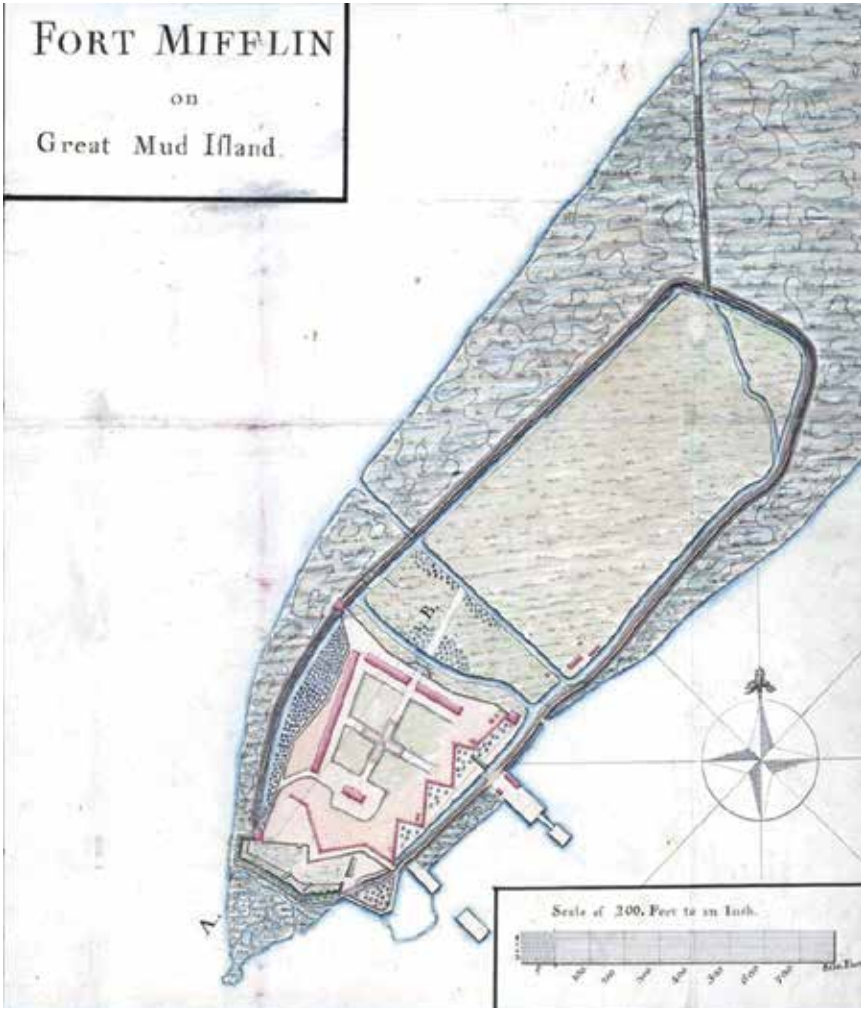
On receiving Darragh's intelligence, Washington alerted the army and directed the militia to sally forth and harass the columns. Armstrong ordered Generals Potter and Irvine to march from the army's lines to Chestnut Hill, Potter by way of Barren Hill, and Irvine by another route. Col. Charles Webb's 2d Connecticut Regiment, led by Lt. Col. Isaac Sherman, accompanied Potter's militia, which killed six or seven of the enemy and took some prisoners. General Irvine was less fortunate: British light infantry surrounded and overwhelmed his small force, wounding and capturing him.

That night, the British camped on Chestnut Hill, occupying a line from its western base on the Wissahickon to Cresheimtown.



Map 10

Washington ordered Varnum's brigade to place abatis before the American works. Seeing the strength of Washington's lines, Howe and Cornwallis marched the column back down the Germantown



Fort Mifflin, ca. 1777, detail from Pierre Nicole and John Montrésor, *A Survey of the City of Philadelphia* (*Library of Congress*)

Road to the Abington Road, and marched north to Jenkintown early the next morning. A rear guard of jaegers and the *Queen's Rangers*, now commanded by Maj. John Graves Simcoe, burned Cresheimtown and Beggarstown. Finding that Cornwallis had abandoned Chestnut Hill, Potter marched his brigade down the Germantown Road toward Abington Friends Meeting on 7 December and ordered a

small detachment to shadow the British force as it advanced toward the American position at Edge Hill.

At Cornwallis's approach, Washington drew up his army in three lines and readied his artillery. The recently arrived Colonel Morgan and his Rifle Corps, along with Gist's Maryland Militia, skirmished on the eastern flank. Washington also sent Cadwalader and Reed to reconnoiter toward Abington. Just as Potter arrived, advance elements of Grey's column, the *Queen's Rangers* and a light company of the *Brigade of Guards* charged into them with bayonets fixed and swords drawn. The militia broke as Sherman's Connecticut Continentals made a stand. General Reed arrived and tried without success to rally the Pennsylvanians. He then ordered the 2d Connecticut to march forward to a position behind President Wharton's country estate. Simcoe's rangers fired on the Continentals' front and flank, killing Reed's horse in the melee, and Sherman's soldiers answered with two volleys before retreating into the American line. About a mile to the east, Knyphausen's column advanced up the Limekiln Road. The *Guards* light infantry beat back Morgan's corps and the Marylanders. Morgan and Gist retreated into the American line. Observing the strong position, Howe declined the attack and withdrew on 8 December, driving off what cattle he could and burning several buildings while Pulaski's dragoons harassed his column.

Matson's Ford, 11 December 1777

On 11 December, Washington broke camp at Whitemarsh to march into Chester County. Continental soldiers under General Sullivan built temporary bridges over the Schuylkill at Swedes' Ford and Matson's Ford. The latter connected the Germantown and Manatawny Roads to the Lancaster Road via the Gulph, a deep draw that ran roughly west from the river. Potter's brigade camped at Bryn Mawr and secured the bridge and the Lancaster Road, forming a picket for any assault at the falls of the Schuylkill. He placed two regiments behind the pickets. Three regiments maintained a position on a hill behind them. Sullivan stood by with two divisions 1.5 miles to the

rear. If attacked, Potter instructed the first line to fall back to the second line if the enemy overwhelmed it. As anticipated, Cornwallis marched a column of about 5,000 soldiers across the Schuylkill at the Middle Ferry and up the Lancaster Road, destroying bridges and other buildings as they foraged on the western side of the river. Cornwallis engaged Potter's advanced positions, which retreated in turn to the protection of the three supporting regiments, using high ground to slow the enemy advance. The British pursued the militia for 4 miles. Sullivan's divisions having recrossed the Schuylkill and destroyed the bridge, Cornwallis withdrew to Philadelphia. The next day, Potter's soldiers rebuilt the bridge, enabling the army to safely recross the river, where it encamped at the Gulph until 18 December, enduring freezing weather, low rations, and inadequate clothing. There, Congress ordered a Thanksgiving for the army. As Private Martin remembered, "it gave each and every man half a gill of rice, and a tablespoonful of vinegar."

The next day, fourteen Continental brigades crossed the Schuylkill at Swedes' and Matson's Fords and marched into Valley Forge in two columns. Two brigades under Smallwood occupied Wilmington. Armstrong remained on the east side of the river, covering the roads as far as Whitemarsh. Pulaski rode to Trenton with a brigade of mounted troops, and others garrisoned Mount Holly, New Jersey, as dragoons patrolled the main roads between the armies. The Philadelphia Campaign had ended.

CONCLUSION AND ANALYSIS

In terms of size and scope, the Philadelphia Campaign had few rivals during the war. For nearly 7 months, the main armies of the United States and Great Britain maneuvered and fought across four states. Howe captured Philadelphia, yet repeatedly failed to fix his wily opponent in a place that would enable his more experienced, better equipped, and numerically superior army to destroy or capture its foe. Worse, Howe did not support Burgoyne's Northern Army.

During the New Jersey phase of the campaign, Howe failed to lure Washington out of his fortified position in the Watchung Mountains. Washington put out smaller, more mobile forces to engage and wear down the British. For the first time, Washington deployed large bodies of mounted troops to observe, delay, and harass Howe's invading army. Washington's defensive tactics responded to every British move, preserved his army, and protected the flow of reinforcements and supplies to Gates's army in New York. General Howe skillfully preserved his army during the retreat from New Jersey, but ultimately wasted lives, resources, and, above all, time.

After Howe put to sea, Washington correctly predicted that the target would be Philadelphia, despite occasional doubts and skepticism regarding the prudence of such a move on Howe's part. Working with Congress and the Pennsylvania Assembly, the army beefed up the Delaware River defenses and put the Pennsylvania and Delaware militia on alert, moving food and other vital supplies out of reach of the enemy.

Throughout the campaign, Washington picked his battles carefully as he fought for time and terrain. He conscientiously chose

his ground and fell back before his adversary's advance, keeping his army concentrated and mutually supportable. His generals learned to fight defensively behind fortifications, or to deploy their brigades in three lines that could retreat in succession when overwhelmed, as Stirling did at Short Hills, Wayne at Brandywine, the Main Army at Whitemarsh, and Potter at Matson's Ford. At Germantown, Washington planned a surprise attack on Howe's advanced camp, succeeding more through the error of his enemy than through the success of his own troops. Poorly synchronized assaults and confusion caused by alcohol and fratricide enabled British and German commanders to counterattack. Yet Howe did not pursue, and the raid forced him to withdraw to Philadelphia, ceding northern Philadelphia County. The defense of the Delaware delayed naval reinforcement of Philadelphia long enough to deny it as a base for further British operations into the middle states.

The campaign provided valuable battle experience to the Continental Army, which often retreated only after running out of ammunition. By maintaining a force in being, protecting Congress, and reinforcing Gates, Washington ensured the survival of the revolution and French recognition of the United States. In stark contrast to Howe, his overall control of the Continental Army thwarted the British attempt to split New England and bagged Burgoyne's army.

Howe fought capably at the tactical level but often wasted time in maneuvers, and he failed to consider terrain and logistics. Although he successfully landed his army at Head of Elk, he did so at the expense of his soldiers and animals. His foraging and flanking maneuvers cost him valuable time and did not fix the Main Army or deny it access to its depots. Howe established good defensive positions, using key terrain features to good advantage but often at the expense of his ability to maneuver, communicate, or resupply. His delay until October in reducing the Delaware forts, paired with Washington's prosecution of a vigorous campaign of defensive maneuver, meant that the opening of the Delaware, when it came, did little to give the British army an operational advantage. At Whitemarsh and along the American supply lines over the

Schuylkill River, Washington contained Howe in Philadelphia. Having failed to eliminate Washington's army, Howe resigned and left it to his successor to evacuate the city the following spring.

Overall, the region's typically severe weather patterns figured in the outcome of several battles. Intense heat exhausted Howe's army at Brandywine as much as his long flanking march. A tropical storm in September ended the Battle of the Clouds before it began. Thick fog reduced visibility at Germantown. Heavy rains caused water levels to rise at key river crossings. Adverse winds delayed the British fleet on many occasions. These delays affected the health of Howe's army and killed most of the horses. Severe cold in November created miserable conditions for the poorly supplied American army at Whitemarsh and the Delaware forts.

The militia performed adequately, if ingloriously. In most battles, militia served in the role of skirmishers, who retreated once the enemy deployed. The Maryland militia faced challenges because of its disorganized state at the beginning of the campaign, and the presence of the British army between it and the Main Army prevented its participation at Brandywine. Its elements fought well at Germantown, during the defense of the Delaware, and at Matson's Ford. Although it secured fords and stores around Head of Elk, the Delaware militia left other parts of the state vulnerable to British foragers. In contrast to the robust numbers mustered by the New England states, or even New Jersey in the previous summer, the Pennsylvania Militia fielded just 3,000 soldiers at the start of the campaign, with the number fast diminishing as time passed. By contrast, militia comprised more than half of Gates's army at Saratoga; Massachusetts alone, with a smaller population than Pennsylvania's, contributed 4,630 militia in addition to Continental drafts. Undisciplined, understrength, and poorly equipped, the Pennsylvania militia still mustered in a timely matter, organized local defenses, mounted guards, provided labor, evacuated supplies, patrolled roads, took prisoners, brought in deserters, suppressed loyalists, and skirmished with the enemy.

The Philadelphia Campaign demonstrated the importance of a mobilized civilian population. Many Pennsylvanians did not support

military operations. Some simply remained loyal to Great Britain. Many were pacifists who refused to support either army or who could not reconcile the cause of liberty with armed conflict. A minority were new arrivals, with less stake in creating an independent nation than their long-established neighbors. Many others previously had supported the cause but were weary of war, or had to attend to their civilian occupations, many of which were essential to the war effort. Yet many who did not actively support the army also did not actively oppose it.

The Philadelphia Campaign, overshadowed by the unequivocal victory at Saratoga, generally is considered an overall American defeat. Washington's failure to destroy Howe's army or even drive him from the field, and the subsequent loss of Philadelphia and the Delaware River forts, sparked a whispering campaign among certain officers and members of Congress to replace him with General Gates. Known as the Conway Cabal, following the discovery of letters written by Brig. Gen. Thomas Conway supposedly criticizing Washington's leadership, the schism would prove damaging to morale and cohesion in the Continental Army. Depositions from officers loyal to Washington—along with a well-aimed ball fired by General Cadwalader during a duel with Conway himself—finally put an end to the matter in early 1778. Yet if the campaign could be called a British victory, it stood as a hollow one. Howe captured a stripped city and a hungry population that he did not use as a base for future operations. He also did not return to New York in time to support Burgoyne.

Even if Philadelphia was an apparent defeat, the Americans easily recouped the reverses they suffered. Washington succeeded in achieving several strategic objectives. The Continental Congress and Pennsylvania state government avoided capture and safely reached York and Lancaster. Congress drew up the Articles of Confederation in mid-November. At Valley Forge, Washington worked with the French officers who had served him so well during the past campaign, along with trusted American officers, to create an army for victory. In the coming spring, the British would evacuate Philadelphia and return to New York, pursued by a rejuvenated Continental Army. Many years of hard fighting lay in store for the Army of the United

States. The battles and maneuvers of the Philadelphia Campaign, although not one of the most stirring tales of the success of American arms, showed the army's resilience, growing proficiency, and tenacity to fight a long war.

APPENDIX

"Order, Regularity, & Discipline": Waging War in the Eighteenth Century

by Joseph A. Seymour

By 1775, armies in Europe and North America had developed into complex forces organized around the infantry regiment. Artillery provided fire support. Mounted units performed reconnaissance, screened attacks and retreats, and added shock. Engineers and pioneers built and demolished fortifications and other works. Artificers repaired and maintained weapons and ordnance. Surgeons treated the sick and wounded. Civilian commissaries made, procured, and transported supplies and rations. All of them supported the foot soldiers, who usually dominated the battlefield.

Composition

The Continental Army and state militia generally organized their infantry regiments using the British model, with a colonel in command, aided by a lieutenant colonel, major, and regimental staff. A regiment had ten companies, including one light and one grenadier company. The light company consisted of the best shots, the cleverest, and the most agile in the regiment. These soldiers specialized in screening, skirmishing, patrolling, and scouting. Congress dispensed early on with the grenadier company, with its brawny shock troops who often formed the vanguard of assaults, and usually authorized

nine companies. Each company carried equipment and additional ammunition in one or two wagons. When the situation called for the infantry to operate away from its baggage train, soldiers placed extra ammunition and essential items in their knapsacks. Most companies had a few women on their rolls. Although not officially in the army, they could draw rations, and sometimes pay, by performing various essential duties, including nursing the sick and wounded and laundering the soldiers' clothing. Captains and lieutenants directed the maneuver and fire of the platoons in their companies. Sergeants and corporals maintained unit cohesion in battle, assisted officers, and enforced discipline in the sections under their charge. Drummers, who ranked between corporals and sergeants, communicated orders in camp and battle.

Equipment

A soldier's basic fighting equipment was known as a stand of arms, which commonly consisted of a musket; a bayonet; a cartridge box of wood, leather, or tin containing between twenty-three and twenty-nine paper cartridges; and cleaning tools. A standard firearm of the period was the British Land Pattern musket. It fired a powerful load consisting of a 1-ounce lead ball propelled by nearly a half ounce of gunpowder. Its oversized barrel of about 0.76- to 0.80-inch diameter made it easier to load. A ball fired from a musket of this type could reach massed troops out to 300 yards. At 100 yards, it was accurate enough to hit an individual and powerful enough to penetrate a two-inch elm plank. Continental, state, and militia forces augmented existing musket stores with locally made copies of the Land Pattern and imported French, German, Dutch, and Spanish arms of similar bore sizes and ballistics. Soldiers also shouldered sporting (nonmilitary issue) arms of different calibers, sometimes retrofitted to mount bayonets. The lack of serviceable arms slowed augmentation and the integration of reinforcements. Furthermore, companies equipped with a mix of arms could not easily sustain fire, let alone mount effective bayonet assaults.

Both armies also issued rifles to light troops or recruited experienced riflemen who brought their own. The rifles usually followed two patterns: the short-barreled, large-bore Germanic or *Jäger* (hunter) rifle, and the long-barreled, small-bore Pennsylvania rifle. Less powerful than muskets, both were accurate to about 300 yards and took about one minute to load. Neither could mount a bayonet. In 1777, British Maj. Patrick Ferguson fielded an innovative breech-loading rifle that mounted a bayonet, but it saw limited service.

Tactics

The musket's capabilities shaped tactics. A trained soldier could fire three rounds per minute. After twenty-five shots, the piece became too hot to handle, and the accumulation of residual gunpowder (known as powder-fouling) required cleaning and slowed reloading. Regiments formed in line at close order, presenting a continuous front of muskets and bayonets to concentrate their fire and mass to maximum effect. Close ranks also enabled company commanders to keep their troops together and thus better control them. The soldiers easily could hear orders communicated by drumbeat and could support each other using linear tactics described in tactical publications such as the *Manual Exercise, As Ordered by His Majesty in 1764*. In 1778, the Continental Army introduced a system spelled out in the *Regulations for the Order and Discipline of the Troops of the United States*, nicknamed the Blue Book. Well-drilled companies could execute a variety of maneuvers to bring their firepower or bayonets to bear, unleashing simultaneous volleys with devastating effect, or firing alternately by platoon to sustain a running fire. Infantry usually closed to the optimal range of 40 yards for a killing volley before a bayonet assault. While battalions also could extend their intervals to optimize individual fire, volume rather than accuracy usually decided a battle's outcome.

Artillery on both sides organized as separate regiments and battalions but fought as detachments as needed. With a range of several hundred yards, 3-, 4-, and 6-pounder guns supported

battalions in battle. With their slightly longer range, 8- and 12-pounders supported brigades, while larger guns with greater range operated from fortifications. Mortars fired exploding shells in a high arc to get over walls or other obstacles. Howitzers fired shells either directly at troops or in an arc. Artillerists and wagon teams were valuable assets. Commanders therefore often ordered crews that were about to be overrun by the enemy to disable their guns with spikes and mallets and abandon the weapons to save themselves and their teams.

Both forces also employed light dragoons, a type of mounted infantry. The scarcity of large horse breeds in America, the cost of transporting such mounts, and the uneven topography challenged the use of cavalry. Organized as regiments or separate troops, dragoons fought both mounted and dismounted and were armed with sabers, carbines, and, occasionally, pistols. Depending on time and terrain, both armies frequently detached light infantry, riflemen, artillery, and dragoons into separate battalions or combined them into corps or legions.

Fortifications

European and colonial governments constructed dozens of forts before and during the war to defend important cities, towns, and key points. Field fortifications included fort-like redoubts, arrow-shaped flèches, and crescent-shaped lunettes. These structures were built of large wicker cylinders, called gabions, which were filled with soil or rubble, and then reinforced by bundles of sticks called fascines, covered with soil and sod, and surrounded by moats. As time permitted, soldiers erected palisades (walls of vertical wooden stakes), placed fraises (sharpened stakes) at a slant on the inner surface of the moat, and laid an abatis (a network of felled trees with sharpened branches) to slow infantry assaults. For a portable obstacle, artificers would use a cheval-de-frise, which typically consisted of sharpened stakes projecting from a log or beam. To fortify harbor defenses and block rivers, engineers employed log booms connected

with heavy chains and created the naval version of a cheval-de-frise by constructing rock-filled timber boxes bearing sharpened logs.

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Technology dictated tactics, which in turn influenced formations. The contending forces frequently deviated from the standards prescribed by regulations or government allocations as they dealt with issues of personnel, materiel, and authority. Necessity and mission spurred the evolution of regulations, tactics, and equipment during the war. That was particularly the case for the new army of the United States. As the war progressed, American soldiers attained a high level of proficiency that earned the confidence of those they served and the respect of both allies and enemies.

"The Course of human Affairs forbids an Expectation, that Troops formed under such Circumstances, should at once posses the Order, Regularity & Discipline of Veterans—Whatever Deficiencies there may be, will I doubt not, soon be made up by the Activity & Zeal of the Officers, and the Docility & Obedience of the Men. These Quali[ties,] united with their native Bravery, & Spirit will afford a happy Presage of Success, & put a final Period to those Distresses which now overwhelm this once happy Country."

—George Washington, in an address to the Massachusetts Provincial Congress, 4 July 1775

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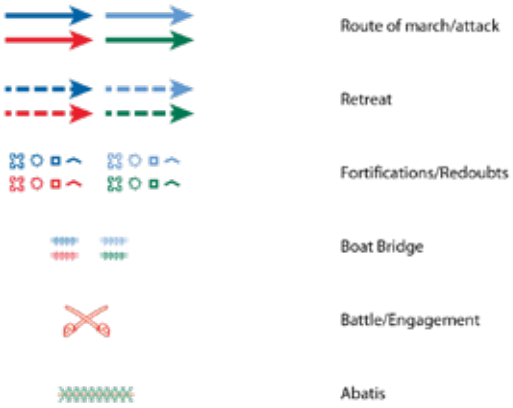
MAP SYMBOLS



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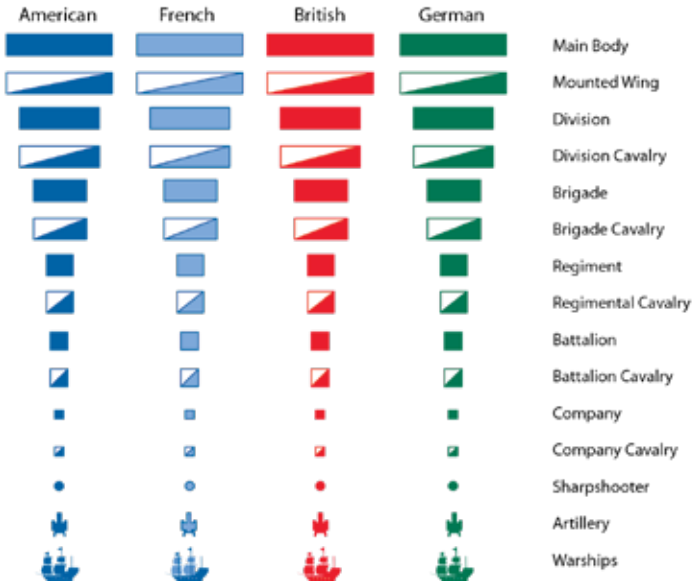

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