

THE BATTLES BEHIND THE MUSTER ROLL
From Snow to Storm: Valley Forge and the Weather of Revolution

By Andrew D. Stevenson

The muster rolls of Valley Forge are dry even when the world they record was not. Among the Rhode Island soldiers listed in Captain Elijah Lewis's company in January 1778 were Privates James and Jeremiah Capwell. James's February card adds the clipped remark "On 7 days command." The forms tell us where the men belonged and how the army accounted for their service. They do not tell us what the road felt like beneath their shoes.

The diaries of other Rhode Islanders bring that physical world into view. Colonel Israel Angell described severe cold and a strong northwest wind on December 19, 1777, as Washington's army moved into Valley Forge. The troops marched without provisions. Wagons struggled over roads that were "Excessive Bad," their horses poor and weak. One wagon overturned and killed a woman. Sergeant Jeremiah Greenman had already noted days of rain and cold. The army stopped among the trees, built fires, and ate raw corn gathered near the encampment.

The Capwells' monthly cards cannot prove where either man stood at every hour of that day. Read beside Angell and Greenman, however, they reveal something a muster roll alone cannot: every administrative entry rested on a physical world of wind, water, frozen ground, exhausted animals, mud, and human bodies. Weather did not merely surround the Revolutionary War. It repeatedly altered what armies and fleets could do.

Valley Forge is the right place to begin that story, but not because it was the coldest winter of the Revolution. It was not. The encampment matters because it shows how weather became military power when it met bad roads, scarce clothing, weak supply systems, disease, and an army trying to build a city from logs.

A Winter of Thaw and Freeze

Later memory turned Valley Forge into a snow globe: Washington, barefoot soldiers, white drifts, and suffering made noble by cold. Hardship was real, but the weather was more changeable than the image suggests. The winter of 1777-78 brought regular freezing and thawing, intermittent snow and rain, and roads that could harden, soften, and become nearly impassable. Wet clothing and bad shoes mattered. So did the difficulty of bringing food, forage, tools, and fuel into a camp holding more than 12,000 soldiers and hundreds of women and children.

Weather alone did not cause hunger. A snowstorm could block a road, but the army's supply and transport systems determined whether that blockage became inconvenience or crisis. Cold could injure an exposed soldier, but shelter, clothing, firewood, nutrition, and nursing shaped

whether he recovered. Mud could stop a wagon, while poor horses and weak administration made it harder to start again.

The army was not passive. The men built roughly 1,500 huts, constructed roads and defenses, erected a bridge over the Schuylkill, foraged, guarded, drilled, and kept records. James and Jeremiah Capwell appear in that paperwork as separate soldiers because winter quarters generated a steady rhythm of rolls and returns. James's "On 7 days command" notation is especially revealing. Somewhere beyond the line on the form, he had been sent to perform a duty. The paper preserves the assignment; it leaves the weather outside. Their records are useful not because their hardships were unique, but because their continuing service lets us follow two ordinary soldiers from one weather crisis into others.

This is the central lesson of Valley Forge. Weather became consequential through work. Someone had to cut the road, haul the ration, mend the shoe, nurse the fever, guard in the rain, and bring a wagon through the thaw. The celebrated endurance of the encampment was not endurance of snow alone. It was the maintenance of an army under constantly changing conditions.

Weather, Providence, and Memory

Eighteenth-century Americans did not separate weather, religion, and public meaning as neatly as many modern readers do. The language of Providence did not always mean that people claimed to know God's exact intention. It offered a way to describe contingency, deliverance, judgment, and human dependence in a world without modern forecasting. A favorable wind or concealing fog could be received as mercy; a destructive storm could prompt humility, fasting, or renewed effort.

That language appears throughout the Revolution. Americans were especially likely to remember weather as providential when they survived or won. British, French, Spanish, Loyalist, Black, Native, and civilian experiences could produce different meanings from the same storm. Weather itself took no side. Providence was an interpretation made by people living through uncertainty.

Later national memory made the pattern tidier. Brooklyn's fog, Trenton's storm, Valley Forge's snow, and Yorktown's wind became episodes in a story of an apparently favored nation. The historical record is more interesting: weather repeatedly created danger as well as opportunity, and outcomes depended on labor, leadership, technology, logistics, and chance. The idea of providence therefore belongs in this story not as proof of supernatural favoritism, but as evidence of how Revolutionary Americans understood survival.

When Weather Hid an Army

Before the Valley Forge winter, weather had already intervened in one of the war's most dangerous moments. After the American defeat at Brooklyn in August 1776, Washington's army was trapped against the East River. British troops stood in front; the Royal Navy threatened the water behind. Changing wind complicated British naval movement, calmer conditions then

aided the American boats, and a dense fog concealed the final stages of the evacuation. Roughly 9,000 men escaped to Manhattan.

The fog did not row the boats. Colonel John Glover's Marblehead mariners did that, assisted by discipline, darkness, tides, and British decisions. Benjamin Tallmadge, a young officer in the retreat, later remembered fog so dense that a person could scarcely be seen at six yards. He called the withdrawal one of the most fortunate retreats in warfare. Without the concealment, the rear guard might have been discovered while much of the army remained vulnerable. Weather created an opening; people used it.

Joseph Plumb Martin, then a teenage soldier, experienced the New York campaign and later survived Valley Forge, Monmouth, Morristown, and Yorktown. Tallmadge and Martin stand here for thousands whose later service depended on the army escaping. The Brooklyn fog did not preserve an abstract "American cause." It preserved particular lives that could continue through the war.

Fog was not naturally patriotic. At Germantown in October 1777, it worked the other way. Washington's surprise attack began well, but thick fog mixed with battlefield smoke. Columns lost contact, officers struggled to understand what was happening, and Americans fired on Americans. The stone walls of Cliveden, command confusion, fatigue, and British resistance all mattered, but poor visibility helped turn an ambitious attack into retreat.

The contrast is useful. At Brooklyn, fog concealed movement and saved an army. At Germantown, fog concealed information and helped disorganize one. Weather had no allegiance.

Wet Powder and Frozen Roads

Rain and cold mattered partly because eighteenth-century armies depended on vulnerable technologies. Black-powder weapons required dry cartridges and functioning locks. Horses pulled artillery and wagons. Dirt roads carried nearly everything. A change in weather could therefore alter firepower, mobility, and time.

Washington's attack on Trenton in December 1776 is the classic example. Nathanael Greene reported that it rained, hailed, and snowed in a violent storm. The weather prevented two of the three planned American columns from crossing the Delaware, leaving Washington's main force dangerously alone. Yet it also reduced visibility, drove Hessian pickets toward shelter, and damaged weapons. The storm almost destroyed the plan and helped preserve its surprise. Afterward, artillery officer Henry Knox wrote that Providence seemed to have smiled on every part of the enterprise. His words did not explain the mechanics of the victory; they explained how an astonishing survival could be given moral meaning.

One week later, weather changed the New Jersey campaign again. Warm rain turned the roads toward Trenton into mud and slowed Cornwallis's advance. Overnight, the temperature fell sharply and the ground froze. The mud that had delayed the British became a hard road over which Washington moved around their flank toward Princeton. No general controlled the change. Washington recognized what it made possible.

During the Philadelphia campaign, rain acted more directly on weapons. On September 16, 1777, British and American forces were moving toward another major engagement after Brandywine when a torrential downpour soaked ammunition and turned roads into mud. John Laurens complained that the rain had nearly drowned the marchers and ruined much of his uniform. A British officer believed the storm had spared the Continental Army another severe defeat. The engagement entered history as the Battle of the Clouds, although water, not cloud, decided that no full battle would occur.

The same army reached Valley Forge three months later. Its soldiers did not encounter weather there for the first time. They carried the memory of fog, wet cartridges, river ice, and mud into winter quarters, along with a habit of asking what such events meant.

From Winter Quarters into Heat

On June 19, 1778, the Continental Army left Valley Forge and moved after the British evacuation of Philadelphia. Nine days later it fought at Monmouth in New Jersey. The familiar story treats the battle as the test of the discipline learned under Baron von Steuben. It was also a test of what human bodies could endure.

The day was exceptionally hot and humid. Men marched and fought across deep sand with too little water while carrying wool clothing, weapons, ammunition, and equipment. Major Henry Dearborn recorded that soldiers on both sides died from the heat. Washington later explained that extreme heat, fatigue, sandy country, and lack of water made further pursuit impracticable. His own horse reportedly died from the strain.

James and Jeremiah Capwell later named Monmouth in their service histories. Henry Dearborn supplied the kind of eyewitness detail their records lack, noting men on both sides overcome by heat. The Capwell files do not say when either man drank, whether either collapsed, or exactly where he stood. They do place two ordinary Rhode Islanders inside an army whose performance cannot be separated from the heat. Discipline mattered because conditions were breaking men down.

Monmouth reverses the conventional Valley Forge picture. The army that had survived winter mud and cold now had to fight in oppressive heat. Weather's military meaning was not a single thermometer reading. It was the distance a soldier could march, the weight he could carry, the water available to him, and whether a formed line could remain a line.

A Hurricane Breaks the First Alliance Campaign

Later that summer, the Rhode Island Line moved the story from heat into storm. France's new alliance with the United States raised hopes that a French fleet and American army could force the British out of Newport. The operation was militarily important and politically delicate: one of the first great tests of whether the allies could fight together. For James and Jeremiah Capwell, now serving amid a reorganized Rhode Island force under officers including Israel Angell, the experiment in alliance was also a campaign close to home.

Before the expected naval battle, a powerful storm struck. For two days, violent wind, rain, and mountainous seas scattered the French and British fleets. Ships lost masts and steering; crews fought the ocean rather than one another. Both fleets withdrew for repairs. The French sailed to Boston, removing the naval support on which John Sullivan's American army depended.

The land battle fought on August 29 was hard and consequential, but it was not the combined victory the allies had planned. The storm did not alone cause failure. Command disagreements, timing, logistics, and distrust also mattered. It did, however, break the operation's design at its most vulnerable point.

Rhode Island's own Council of War framed the crisis in the religious language of the day. Its August 17 proclamation began, "It having pleased God to order events" so that the French fleet had put to sea and its return was uncertain. The phrase did not celebrate the storm. It placed an unwelcome reversal inside a providential order while calling more men into service. Here providence meant obligation under adversity, not a promise that weather would favor the American side.

James's pension history named Rhode Island; Jeremiah's named Newport and Rhode Island. James had transferred into Captain Coggeshall Olney's company under Colonel Angell. Their later recollections place them among the soldiers who had to live with the storm's consequences, though not on a precisely recoverable spot on the battlefield. Sullivan's reports, Angell's regiment, French naval journals, and the Capwell records together connect the alliance crisis to named people rather than to weather alone.

The Winter That Was Worse

Valley Forge is better remembered, but the winter of 1779-80 at Morristown was colder. Snow fell repeatedly. Roads vanished beneath deep drifts. Rivers and harbors froze. Supplies could not reach the army, and hunger sharpened the cold.

Joseph Plumb Martin called it the "hard winter" and remembered going four days with almost nothing to eat. Major General Johann de Kalb, who knew the earlier encampments, wrote that anyone who had experienced only Valley Forge did not yet know what it was to suffer. Washington told Lafayette that the oldest inhabitants could not remember such a winter.

The Capwell records again place two ordinary soldiers in this world. Jeremiah said he completed his three-year service and was discharged at Morristown; James's pension history likewise ended his enlistment there. Alongside Martin's remembered hunger, de Kalb's comparison, and Washington's correspondence, their service path prevents winter suffering from becoming one famous frozen scene. Endurance was repeated. It changed form from mud and thaw to heat, hurricane, deep snow, and hunger.

War in the Hurricane Belt

The Revolution was an Atlantic war, and the hurricane season of 1780 exposed its scale. A series of catastrophic storms struck the Caribbean while British, French, and Spanish fleets

competed across the region. The Great Hurricane of October 10-16 killed tens of thousands of civilians, sailors, and soldiers and destroyed or damaged warships. These losses mattered in a maritime war, although it is too simple to say that a hurricane “saved” the United States or directly produced the later French victory in the Chesapeake.

The distinction between storms matters. On October 16, just as the Great Hurricane was moving away, Bernardo de Gálvez sailed from Havana toward British Pensacola with a Spanish fleet commanded by José Solano. The convoy carried 3,822 soldiers and 169 officers. Beginning two days later, another hurricane battered it for several days, sinking ships, damaging others, and scattering vessels toward Havana, Campeche, Mobile, and New Orleans. The planned 1780 attack had to be abandoned.

Gálvez's own published diary began its Pensacola story with that failure. Yet weather changed the campaign's timing rather than its final result. He rebuilt the expedition, returned in 1781, and captured Pensacola in May. The hurricane demonstrates both the power and the limit of weather in war. It could disperse an army at sea. It could not decide whether its commander would try again.

The Last Attempted Escape

The final great weather intervention creates an extraordinary echo of Brooklyn. In October 1781, Cornwallis was trapped at Yorktown by American and French armies and a French fleet. On the night of October 16, the British began ferrying troops across the York River toward Gloucester Point in the hope of breaking out. Then a violent wind-and-rain storm scattered the boats. The attempt collapsed. Cornwallis described the failure in his report to Henry Clinton; Joseph Plumb Martin watched the siege from the allied lines. Cornwallis requested a cease-fire the next day.

The siege, the allied trenches, French naval control, and British strategic failure had made his position desperate. The storm did not win Yorktown by itself. It closed the last route Cornwallis tried to use.

It is easy to see why later Americans paired Brooklyn and Yorktown as providential bookends: a fog preserved Washington's army near the war's beginning, and a storm frustrated Cornwallis near its military end. Yet the symmetry belongs partly to memory. The same war included storms that wrecked American plans, froze supply lines, and scattered allied fleets. The deeper pattern was not constant favor but repeated exposure to forces no army commanded.

In 1776, weather helped conceal Washington's army as it crossed a river away from defeat. In 1781, weather exposed the impossibility of Cornwallis's river escape. Between those crossings lay Valley Forge: not the moment when Americans learned to suffer weather, but the place where thousands of weathered individual experiences were gathered, recorded, and transformed into a more durable army.

What the Weather Brought to the Muster Roll

A muster roll can tell us that James Capwell was on command, that Jeremiah Capwell belonged to the same company, and that both remained in service through reorganization and campaign. It cannot record the pressure of a wet cartridge between cold fingers, the pull of a shoe from mud, the thirst of a march through New Jersey sand, or the sound of wind breaking a fleet apart. Nor can one family pair represent the whole army. That is why their records belong beside the testimony of Angell, Greenman, Tallmadge, Martin, Greene, Knox, Dearborn, Sullivan, Gálvez, and Cornwallis.

Together, rolls, diaries, letters, pension declarations, orderly books, naval journals, and weather history show that weather was neither scenery nor a providence reliably assigned to one side. It was an unstable military force. It preserved armies and confused them. It stopped battles and opened roads. It broke plans, exposed weaknesses, and rewarded adaptation. Participants could call an outcome providential without possessing a modern explanation for the weather or denying the human work that turned opportunity into survival.

Valley Forge belongs at the center of that story because the encampment makes visible the daily labor of surviving conditions no commander could control. The names of James and Jeremiah Capwell sit quietly among thousands on the page. Around them, and around Tallmadge in the Brooklyn fog, Martin in the hard winter, Sullivan on Aquidneck Island, Gálvez at sea, and Cornwallis at Yorktown, moved a war of snow, thaw, mud, fog, heat, and hurricane. Weather became history through what people endured, what they did next, and what they believed the outcome meant.

A Note on the Records and Weather

Muster rolls record a soldier's status at a reporting point, not his uninterrupted physical location or personal sensations. The repeated records for James and Jeremiah Capwell strongly establish their separate identities and their service in the Rhode Island Line during the Valley Forge period. Marginal notes such as “on command,” along with later transfers, guard duty, leave, illness, or detachment, complicate any attempt to place an individual on a particular road on a particular day.

Weather terminology also requires care. Eighteenth-century writers used words such as storm, gale, hurricane, snowstorm, and tempest without modern instruments or classifications. Exact temperature estimates are often reconstructed or repeated from later accounts. This essay therefore privileges contemporary descriptions of operational effects—roads becoming impassable, powder becoming wet, ships losing masts, rivers freezing, men collapsing—over false precision.

The hurricane that scattered the Gálvez-Solano expedition beginning on October 18, 1780, should not be merged with the Great Hurricane that devastated the Antilles earlier that month. Both belonged to the extraordinary 1780 season, but they were distinct storms.

Sources & Further Reading

- [Valley Forge National Historical Park, "What Happened at Valley Forge" and "December 1777 - From the Journals of Valley Forge."](#)
- [Valley Forge Legacy Muster Roll Project, records for the 1st and 2nd Rhode Island Regiments and the individual service entries for James and Jeremiah Capwell.](#)
- James Capwell pension file, NARA publication M804, survivor's file S39329; Jeremiah Capwell pension declaration and property schedule; U.S. Compiled Revolutionary War Military Service Records.
- [Joseph Plumb Martin, A Narrative of Some of the Adventures, Dangers and Sufferings of a Revolutionary Soldier \(1830\); National Park Service, "Joseph Plumb Martin."](#)
- [Morristown National Historical Park, "Hard Winter News" and "Winter Encampment Summary."](#)
- [National Park Service, "Lt. Colonel John Laurens"; John Laurens to Henry Laurens, September 1777.](#)
- [Henry Dearborn, Journals of Henry Dearborn, 1776-1783; George Washington to Henry Laurens, July 1, 1778.](#)
- [Naval Documents of the American Revolution, vol. 10, including the journal of the French warship Engageante during the August 1778 storm.](#)
- [Bernardo de Gálvez, Diary of the Operations against Pensacola.](#)
- [Gabriel Paquette and Gonzalo M. Quintero Saravia, eds., Spain and the American Revolution: New Approaches and Perspectives \(2020\), introduction and archival notes.](#)
- [National Oceanic and Atmospheric Administration, Atlantic Oceanographic and Meteorological Laboratory, historical essays on the Great Hurricane of 1780 and Solano's hurricane.](#)
- [Yorktown National Historical Park, "History of the Siege"; Charles Cornwallis to Henry Clinton, October 20, 1781.](#)
- [Don N. Hagist, "Top Ten Weather Interventions," Journal of the American Revolution \(2022\).](#)
- [American Battlefield Trust, "The Effects of Weather on 18th Century Warfare" and "In the Heat of the Moment at Monmouth."](#)
- [Benjamin Tallmadge, Memoir of Col. Benjamin Tallmadge, including his recollection of the Long Island evacuation; American Battlefield Trust, "The Fog Saved a Part of Our Army from Being Captured."](#)
- Nathanael Greene's account of the Trenton storm and Henry Knox's post-battle letter on Providence, in published Revolutionary correspondence.
- [Rhode Island Council of War broadside, August 17, 1778, beginning "It having pleased God to order events," Library of Congress; John Sullivan's published account of the Rhode Island campaign.](#)

Image



Caption: A 1779 British print restores landscape, formations, and human scale to the Rhode Island campaign, where a violent Atlantic storm scattered the French and British fleets and transformed the first major Franco-American operation. The engraving shows the campaign after the storm; it does not depict the hurricane itself.

The Siege of Rhode Island, taken from Mr. Brindley's House on the 25th of August, 1778 (London, 1779). Library of Congress, Popular Graphic Arts Collection. No known restrictions on publication.