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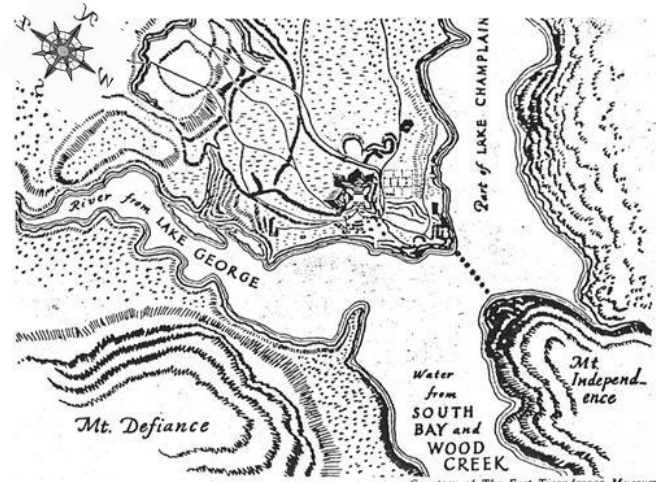
Floating Bridges at the Battle of Saratoga

By Brian Mumford, Past President

When writing of the Battle of Saratoga, a favorite subject is Burgoyne's bridge of boats on the Hudson River. Assembled in August 1777 north of the Battenkill, the bridge carried the British troops with their supplies and artillery to the west side of the river to continue their planned march to Albany. The writing is often accompanied by a copy of an elegant painting by John Forbes portraying what Burgoyne's bridge might have looked like, together with praise of Burgoyne for his creative solution to meet the challenge of getting his troops to the other side. Laudatory language implying original thought is often seen, such as "ingenuity is born out of necessity."

This depiction ignores the fact that by 1777 use of a floating bridge was not an original strategy. Floating (or pontoon) bridges had been used in military settings for centuries. Use of Roman-designed pontoon bridges was a favored plan of Julius Caesar, who in 55 B.C. built a floating bridge that was 1,311 yards long (thirteen football fields) to send his army across the Rhine River during the Gallic War. In fact, Burgoyne during his capture of Fort Ticonderoga only a month prior to his deployment of a bridge of boats had used a floating bridge which had been constructed by the American army.

Ticonderoga floating bridge: The American army gained control of Fort Ticonderoga in May 1775 when it was captured by Benedict Arnold and the Green Mountain Boys led by Ethan Allen. After the failure of the 1775-76 American invasion of Canada and at the Battle of Valcour Island, commander of the Northern Department, General Philip Schuyler, anticipated the Campaign of 1777 and the renewal of the British invasion from the north. Realizing the need for extensive fortification of Fort Ticonderoga and Mount Independence, he ordered engineer Colonel Jeduthan Baldwin to Ticonderoga to work with engineer General Thaddeus Kosciuszko supervising construction of the defense. Baldwin, who was from Massachusetts, had served as an engineer in the Continental Army developing fortification during the Siege of Boston (April 19, 1775 to March 17, 1776 and also at the Battle of Brooklyn Heights. (August 27-29, 1776) ^{1 and 2}



Ticonderoga Terrain with Fort in Center. After a map drawn by General Burgoyne's engineers. Courtesy of The Fort Ticonderoga Museum

Mount Independence is a peninsula located in what is now Vermont on the east side of Lake Champlain across from Fort Ticonderoga, where the lake is only a quarter-mile wide. The two engineers designed and supervised the construction at Mount Independence of a star-shaped picket fort having extensive breastwork with a battery of 28 cannons. They also built eight barrack buildings within the stockade capable of housing 12,500 soldiers. Baldwin kept a journal which was published in 1906, titled *Revolutionary Journal*, which is a recognized source of the details of the Campaign of 1777

To facilitate movement of the troops and communication between Mount Independence and the Fort, Baldwin designed and built a 1,300-foot floating bridge to cross Lake Champlain. The bridge was constructed using logs for ballast and a deck of wooden planks. The structure was strong enough to support columns of troops with equipment moving across the planks.¹

In early July 1777 Burgoyne, with a force of 8,000, began the Campaign of 1777 moving south down Lake Champlain towards Fort Ticonderoga. General Arthur St. Clair, commander of the Fort, ordered his army of 3,000 to evacuate Ticonderoga. He directed 200 boats carrying troops and equipment to advance south down Lake Champlain to Skenesborough (currently Whitehall.) Other troops were ordered to march east across Lake Champlain on the pontoon bridge to Mount Independence in Vermont and then to continue east along the road leading to Hubbardton.

Burgoyne, after pursuing and engaging the Americans at Hubbardton and Skenesborough, continued with his orders to march south to Albany. He left 1,000 British troops to garrison Ticonderoga as he moved south. The garrison troops made use of the pontoon bridge as they guarded Mount Independence and the Fort. The British gave up control of Ticonderoga three months later in October after Burgoyne surrendered at Saratoga (now Schuylerville.)

Burgoyne's floating bridge on the Hudson: While moving south, the British traveled over Lake George and the Hudson River. In the area of Fort Miller, Burgoyne decided to cut

communications back to Canada in order to avoid delays while waiting for supplies. He halted at the Duer House to allow time to accumulate sufficient supplies to carry his army to Albany.

On September 13 at this location about 15 miles north of Bemis Heights, Burgoyne had a floating bridge constructed to cross the Hudson to the west side to put his troops on the same side of the river as Albany. The bridge was constructed using the army's boats for ballast which were overlaid with planks of wood. The army of 7,000 with arms and equipment crossed the river on the planks and began the marched south towards Saratoga.

American floating bridges on the Hudson: In July Baldwin and Kosciusko were ordered to work together again to oversee development of defenses at the Hudson River sites in anticipation of the British approaching.

On August 19, 1777, the command of the Northern Department was transferred from Schuyler to General Horatio Gates. In early September, Gates undertook to move the Northern Army's main defense position from its location at Van Schaick Island near Albany at the juncture of the Hudson and Mohawk Rivers. The troops marched north to a position at Stillwater on the west shore of the Hudson River.

On September 9, Baldwin constructed a floating bridge at Stillwater which crossed to Schaghticoke on the east side. Baldwin's journal reflects that the bridge, which took one day to construct, was put into service within days. General John Stark and 800 New Hampshire militia troops arrived on the east side of the Hudson and crossed the bridge to encamp at Stillwater.

Within days, Gates ordered his men to move north from Stillwater four miles to a strategic location known as Bemis Heights, which was ten miles south of Saratoga (present day Schuylerville.) The new location derived its name from its proximity to the tavern owned by Jotham Bemis near the present-day junction of U.S. Route 4 and N.Y. Route 32. The newly constructed floating bridge at Stillwater was also moved north. It is not clear whether the bridge was dismantled and transported by wagon or was floated up the river.

The Bemis Heights location was selected in counsel with Kosciusko who ingeniously planned and developed the battlefield defenses. The intended purposed of the design was to impede the British's plan to march south towards Albany using the only road to Albany along the western shore of the Hudson. Instead, Kosciusko's plan was to force Burgoyne to advance through deep ravines running through difficult wooded terrain inland from the well-traveled road. This setting would be advantageous to the American defense.

After the victory at Bennington in mid-August and later after the stand-off at the Battle of Freeman's Farm in mid-September, the militia in New England began to respond to the pleas to march to Saratoga to support the Continental Army. Militia from Connecticut, Massachusetts, and New Hampshire headed west to assemble at locations on the east side of the Hudson to await orders to cross the river to Bemis Heights and support the Continental Army.

By the end of September, nearly 2,000 Massachusetts militiamen bivouacked in the Schaghticoke area which at the time was in Albany (now Rensselaer) County, on the east shore of the Hudson opposite Stillwater. All of the militia were under the command of General John

Fellows from the Massachusetts militia. The first contingent was estimated to be 500 to 800 men. The second group was about 1,000 men. Many of these men crossed the Hudson and went quickly to General Gates' camp on Bemis Heights. Others camped on hills around Schaghticoke in the places that Gates had ordered occupied to ensure that the British did not cross the river to establish batteries on high ground anywhere in the Continental Army's rear.

The development of the American defense at Bemis Heights assured that any combat with the British was going to occur on the west side of the Hudson. With the militia troops who were to be engaged amassing on the east shore, it became essential to develop means of efficient communication and transportation across the river. There was daily movement of troops with equipment and arms both ways across the river responding to orders to move to potential areas of battle. Troops crossed the river regularly to forage for food for both the soldiers and animals. In addition, supplies had to be provided for the troops assigned to guard the east side from British infiltration. Given the logistics of the increasing numbers of both Continental and militia soldiers, reliance on boats to cross the river had become impractical.

The daily journal which Baldwin kept while engaged at Bemis Heights include notes on his constructing the floating bridges. Although he noted specific dates, he recorded very few details regarding the actual bridge construction or the crews doing the work. His entries are primarily limited to dates and general references to his building a bridge.

Records regarding Baldwin's building the bridge on September 9 from Stillwater across to Schaghticoke provide details that the bridge was 924 feet long and 16.5 feet wide and took a half day on September 9th and was completed by noon on the next day. It was noted that troops drove a number of cattle and sheep over the bridge from the east side, and also that the construction was strong enough to support traffic of troops with their gear, artillery, and loaded wagons. However, the following entries from his journal show that Baldwin was far more succinct when recording his construction activity (the bold is added to highlight references to bridges; spelling is Baldwin's.)

Sept. 9 Marched in the Front with the Carpenters & pioneers. Col. Morgans 155 Riflemen the advanced party & flanks **got to Stillwater about 12 o clock & at 2 o clock began a bridge a Cross the River**, afternoon a flag Came in with a Doctor from Burgoin to Visit the Wounded Hessians & Regulars at Benington. a prisoner sent home.

Sept.11 **making Bridges & cutting cross Roads** to advance in Collums. orders for a March.

Sept.12 Struck tents at gun firing & marcht the whole army before Sunrise, incamped upon the high Ground above Beemis's, 3 miles from Stillwater. **800 of Genl. Starks crossed the River to Stillwater** & incamped there

Sept.14 Genl. Starks came to camp from Benington, **the enemy Crossed the River at Saratoga.**

Sept.30 **made a Raft on Battoes to cary our Wagons across the River.**

Oct. 2 three prisoners taken & three hessn (Hessian) deserters came in from the Enemy, took 7 Horses from the Enemy & at Evning 24 prisoners **brot in from the east side the River** & a Capt. 2 Subs & 10 men & 40 Horses & cattle **brot in on the west side the River** taken at Saratoga, bought a Horse & a mare.

Oct.6 **prepaired 5 battoes for fire Rafts.** [Note: a raft loaded with combustibles for setting fire to an enemy's waterfront]

Burgoyne began his retreat north on October 8th.

Oct.9 a Very wet Day **out a making Bridges** the *Enemy left there Camp at Gunfire & marched.* I went with Genl. Nixon to there Camp, found they had left Sick, wounded & Nurses, took 2 Ammunition wagons, one cas of Medicine, found a No. of the Enemies Horses dead on the road & there baggage.

Oct.11 Took the Enemies Boats & provisins & 60 prisoners besides deserters. **Making Bridges on the Road.**

Oct.12 **building Bridges across Schuylers Creek in 2 places,** a large No. of prisoners & Deserters came in this Day.

Oct.13 **Building Bridges** rode with Genls Nixon & Glover to propose works ²

Gates led troops north from Bemis Heights in close pursuit of Burgoyne's retreat and kept pressure from the south on British troops. He established new headquarters two miles south of Saratoga. Records disclose that Baldwin was engaged in bridge construction in the area. It is conceivable that the entry in his journal for Oct 12, above, reflects that construction. Other sources mention a floating bridge constructed across the Hudson below Fish Creek which gave easy communication with Fellows to the east.

On October 12, John Stark, recently appointed a Continental brigadier general, led his New Hampshire troops to block the British retreat to the north. He moved to the east side of the Hudson at Fort Edward where he crossed to the west. The troops moved south to intercept Burgoyne by establishing a position at an area currently known as Stark's Knob north of present-day Schuylerville. The "Knob" refers to a high lava elevation from which Stark directed his troops to positions along the narrow road that Burgoyne would have to travel in order to retreat north to Fort Ticonderoga, which was still under British control. American forces already had blocked the British on the east, south and west, which lead historian John Brandow to refer to Stark's strategy to block the north as "the corking of the bottle."

October 17, 1777 Burgoyne surrendered

Blocked from a northern retreat by Stark and surrounded on all sides by Continental and militia troops, Burgoyne soon entered into surrender negotiations with Gates. On October 17, 1777, Burgoyne surrendered to Gates, which was the first occasion ever that a British army surrendered to the enemy on an open battlefield. The location of the historic surrender currently is a park in Schuylerville, the Saratoga Surrender Site, which is now part of the Saratoga National Historic Park.³

After the British surrender, Baldwin's final entry in his journal regarding his bridges at Saratoga was made on Oct 25, "**Genl. Burgoyne's baggage Sent over the River.**" It is not clear whether the baggage was being sent to Albany where Burgoyne was a guest of Schuyler or sent to Boston which was his ultimate destination as a prisoner under the terms of the Convention. On the day of the surrender, Burgoyne had accepted Schuyler's offer to be his guest at his Albany home. Burgoyne left Saratoga on October 17th under a guard of 200 men led by Colonel Quackenbush of the Albany militia; after two days they reached Albany. Burgoyne remained for about two weeks and then traveled to Boston, where he remained a prisoner until May 1778 when he was paroled and permitted to return to London.⁴

The numerous floating bridges built by Baldwin on the Hudson (the exact number is not known) played a crucial role in bringing about the victory at Saratoga. They provided a vital link of communication to move troops into effective positions. They provide teamsters access across the river as they brought wagon-loads of military supplies from Albany. Under the command of Fellows and Stark, the troops were able to effect rapid movement in both directions over the river to block any attempts by the British to cross to the east.

A military victory is the result of countless decisions made while developing strategies and battle plans, as well as choices made during the conflict in the fog-of-war dealing with the unexpected. When considering how a victory was achieved many factors must be studied. It often becomes clear how one factor worked to strengthen the importance and effectiveness of another.

Over the years engineer General Thaddeus Kosciuszko has received well deserved recognition for his engineering prowess in selecting and developing Bemus Heights for the American defense. When considering this engineering accomplishment, it seems clear that the wave of New England militia arriving on the east shore of the Hudson strengthened the importance of Kosciuszko's selection of Bemis Heights. What also seems clear is that Baldwin's design and construction of the floating bridges was essential to effectively move those militia troops across the river to provide the defense at Bemis Height. Colonel Jeduthan Baldwin is one more person to add to the list of those deserving credit for the Saratoga victory that became the turning point of the American Revolutionary War.

Footnotes

The footnotes imbedded in the article are intended to guide the reader to relevant articles appearing in prior issues of the FOSB's newsletter which the reader may find interesting.

1. Article regarding Henry Knox at Ticonderoga moving cannons across Lake Champaign in the vicinity of the floating bridge built by Gen. Baldwin. Also, regarding the Siege of Boston April 19, 1775 to March 17, 1776. Mumford, *Knox's Noble Trail of Artillery*, Fall-Winter 2021, <http://www.friendsofsb.org/assets/files/Spring-Summer2021.pdf>.
2. Article regarding the importance of the fortification during the Battle of Long Island and also regarding Generals Nixon and Glover crossing Fish Creek in pursuit of the British retreat on Oct 11, 1777, in the vicinity of Baldwin's bridge construction. Mumford, *Fog of War*, Fall-Winter 2020, <http://www.friendsofsb.org/assets/files/FOSB-FALL-WINTER-2020.pdf>
3. Article regarding the dedication ceremony on October 17, 2021, during which Friends of Saratoga Battlefield presented the Saratoga Surrender Site to the Saratoga NHP and National Park Service after years of raising community funds and developing the Site. *Surrender Site Transfer to SNHP*, Spring-Summer 2021, <http://www.friendsofsb.org/assets/files/Spring-Summer2021.pdf>

4. Article regarding Burgoyne's parole as a Convention prisoner and his return to London to present during a Parliament hearing persuasive proof that the King and his ministers, and not Burgoyne, were responsible for developing the disastrous strategy of the British Campaign of 1777. Mumford, *In Burgoyne's Defense*, Summer-Spring 2021, <http://www.friendsofsb.org/assets/files/Spring-Summer2021.pdf>

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2. Hickman, Kennedy. *American Revolution: Major General John Stark*, 2017, ThoughtCo, thoughtco.com/major-general-john-stark-2360615.
3. Strach, Stephen G. *Baldwin's Floating Bridge, a Report on the Identity of the Type and Composition of the American Structure Built Across the Hudson River September and October 1777*, 1960. National Park Service History eLibrary. <http://npshistory.com/publications/sara/baldwin-floating-bridge.pdf>
4. Neilson, Charles. *An Original, Compiled and Collected Account of Burgoyne's Campaign*, J Munsell publisher, Reprinted by Hamilton Printing Co, Albany, 1844, (NB: Author's family owned Neilson House located at the Saratoga National Historic Park.)
5. Elting, John. *The Battles of Saratoga*, Philip Freneau Press, Monmouth Beach, NJ, 1977.
6. Schnitzer, Eric & Don Troiani. *Campaign to Saratoga---1777: The Turning Point of the Revolutionary War in Paintings, Artifacts, and Historical Narrative*. Stackpole Press, Guilford, CT, 2019.