

SEVEN EXTERNAL FACTORS THAT ADVERSELY INFLUENCED BENEDICT ARNOLD'S 1775 EXPEDITION TO QUEBEC

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Introduction

Sometime in August of 1775, less than two months after taking command of the Continental Army, Commander-in-Chief George Washington made the decision to send two distinct detachments to invade Canada with the objective of making it the fourteenth colony and depriving the British of their existing North American base of operations. The first expedition, to be commanded by Major General Philip Schuyler of Albany, New York, was to start in Albany and take the Lake Champlain-Richelieu River route to Montreal and then on to Quebec. The second expedition, which was assigned to go through the unknown Maine wilderness, was to be commanded by Colonel Benedict Arnold of New Haven, Connecticut.¹

What is not well understood is just how much the outcome of Arnold's expedition was affected by seven specific factors each of which will be examined in this article. Sickness, weather and topography were three external factors that adversely affected the detachment despite the exemplary leadership of Arnold. As if the external factors were not enough, the expedition's food supply became badly depleted as the march went on. The food shortage was directly related to the adverse weather conditions. However, there were two other factors that affected the food supply and the ability of the men to complete the march. These factors were the green wood used to manufacture the boats and the return of the Lieutenant Colonel Roger Enos Division while the expedition was still in the wilderness.

Sickness and Disease on the Expedition

The extent of medical problems encountered by the men was evidenced by the building of a hospital for the sick in early October on the second portage from the Kennebec River before the expedition reached the Dead River. The hospital was in the charge of Lieutenant Matthew Irvine, a physician in Captain Matthew Smith's company. Irvine was suffering from dysentery and rheumatism, and was left behind due to his debilitated condition. When the expedition reached the Dead River, they encountered even bigger problems with illness because contaminated pond water caused more of the men to become very ill with a form of dysentery.²

In his article on the medical problems in the campaign to invade Canada, Phillip Cash evaluated the conditions of hardship, hunger and weather that the expedition faced in the wilderness and made the following conclusion. "Given these incredible conditions it is truly amazing that even this rock hard and mule stubborn band did not either quit and retreat, as indeed Colonel Roger Enos' corps did, or become decimated by death and disease ... The relatively limited amount of illness, both in terms of numbers and

severity, is highly surprising.”³ Cash attributes this to the above average physical condition of the men who volunteered for the expedition.

As the expedition continued, hunger and cold weather became a greater obstacle for the men than sickness or disease. Many of the journals mention the hunger of the men, the rain producing hurricane and the cold weather all of which resulted in severe exhaustion. As a result, as many men were sent back or died along the way from hunger and exhaustion than from sickness. My recently published examination of the roster of men who participated in the Quebec adventure reveals that 156 men returned from the expedition due to illness, exhaustion or injury. This number represented a 15% reduction in the force that left Cambridge. In addition, a total of 233 men also left the force with the Enos division on October 25, 1775.⁴ The total of Arnold’s forces to reach Quebec was 675 men.

Weather Conditions: Hurricane Weather

No one could have anticipated that the expedition would encounter hurricane weather while it was in the wilderness. The only exposure to hurricane weather that might have been anticipated would have been when the ships were on the Atlantic Ocean transporting the men from Newburyport, Massachusetts to the mouth of the Kennebec River. A hurricane did occur during that phase of the expedition. However, the expedition survived this hurricane with minimal damage and continued on its way. Much to the surprise of everyone involved, another hurricane hit the army as it made its way from the Kennebec River to the Dead River.

On September 23rd, the expedition began departing from the Colburn boatyard in Gardinerstown, Maine and reached Fort Western on the 24th. It encountered rainy weather in early October but the journals record that there were days both with and without rain until October 19. On this day, all of the journals agree that a hard rain fell, particularly during the night of the 19th. It also rained steadily the two following days. Arnold described the 19th as “rained very hard all night.”⁵ Pierce says it “rained steady all day & chief of the night.” Pierce describes the rain on the 20th as “rained in the afternoon. Then rained very hard. Continued to rain very fast.”⁶ Arnold's entry for the 20th says “Continues rainy the whole of this day.”⁷ Squier’s description probably best sums up the rain on the 20th, “A windier or rainer day I never see.”⁸ There is no doubt that the weather encountered by the men for the three days from October 19th through October 21st was hurricane type weather and was totally unexpected.

This hurricane weather event had a significant adverse impact on the expedition because one of the factors in the Enos division’s decision to turn back was the devastating impact of the hurricane. Three days after it inundated the expedition with rain, Enos’ division made the decision to return to Cambridge. The importance of the proximity in time of the two events cannot be discounted so the hurricane had the immediate impact of reducing Arnold’s forces by nearly two hundred fifty men, as well as an unknown amount of their food supply.

The hurricane also had another impact on the expedition because the influx of water completely changed the landscape along the route. “Detours and wide circuits multiplied all distances. Landmarks had been swallowed up. Dry gullies were now rushing streams. Every little tributary became a river.”⁹ The men woke up to a totally new landscape. Seven journals, including Arnold’s, describe the unusual rising of the

water in the river on the 21st.¹⁰ There is not unanimity in the journals regarding the dimensions of the rise, but most indicate that it rose at least eight feet. Water was everywhere and the difficulties of finding the way north to the Chaudière River increased exponentially. The unanticipated hurricane created the single most significant challenge the expedition faced as it made its way to Canada.

Weather Conditions: Cold and Snow

David Ludlum says that the expedition was subject “to an unusually early onset of winter with late October cold, ice and snow adding to the twin hardships of semi-starvation and physical exhaustion.”¹¹ Many of the journals describe the first snow falling on October 25th. Arnold says that it “Snowed and blowed very hard” on the 25th. Pierce described the 25th as “very snowy, squally and cold.” Senter says “A storm of snow had covered the ground nigh six inches deep, attended with very severe weather.”¹² The snow and cold weather also influenced the October 25th decision of the Enos division to turn back.

There were also other observers not with the expedition who recorded the same extent of cold weather during the winter of 1775-1776. Rev. Thomas Smith of Portland described the November weather in his town. “The whole of this month has been one continued spell of severely cold windy winter like weather.”¹³ Schuyler summed up the cold weather and its impact on the Canada campaign in a January 10, 1776 letter to Hancock, “The weather became most intensely cold in Canada.”¹⁴

Rev. Thomas Smith wrote in his diary about the extreme winter weather of 1775-6. “The winter past has been the coldest, in the whole, that has been known. The ground has been constantly covered with snow.” Cash called the winter of 1775 and 1776 “the severest in at least a decade with the temperatures dipping to 28 below and snow drifts at 7 feet”.

From a weather perspective, the American forces could not have selected a more problematic time period in which to invade Quebec. From September through November of 1775, the impact of the hurricane and the unusually cold weather had devastating consequences. The expedition arrived in Canada too exhausted and with too few troops to mount a successful siege on the fortress of Quebec without assistance from the twin expedition led by General Richard Montgomery.

Topography

In Maine, the expedition started off at sea level from Fort Western. After Fort Western, the Kennebec River ascends at a gradual incline until it reaches Ticonic Falls. From that point, it ascends at a much steeper rate and continues at the steeper rate until the Great Carrying Place¹⁵ is reached. In that first phase of the journey to the Great Carrying Place, the course of the Kennebec River required surmounting four portages during which provisions and bateaux were carried by the men.

Unfortunately, the upward ascent continued when the men left the Kennebec. The route from the Great Carrying Place to the Dead River has an ascent of six hundred feet. Clark maintains that the expedition ascended an additional three hundred feet due to “several high ridges to overcome to reach the Dead River. The route was constantly going up causing the men to work even harder to move boats and supplies to their destination.”¹⁶

The route from the Dead River over the Height of Land, through the Chain of Ponds and on to Lake Megantic involved portages totaling 13 difficult kilometers.¹⁷ Due to the hurricane and the changes in the water courses as a result of the rising water, the route in this section was nothing like the Montresor¹⁸ map Arnold was using. More bateaux and supplies were lost to the water in this area, further depleting the food supply.

Lake Megantic¹⁹, the headwaters of the Chaudière River, lies in Canada. Upon reaching this lake, the expedition had no information regarding the conditions that existed along the subsequent route. In fact, the route from Lake Megantic down the Chaudière River was probably the most difficult portion of the trek. Geologist Bruce Rueger of Colby College states that the Chaudière River in its descent from Lake Megantic "drops 180 meters in 80 kilometers in a series of continuous rapids with several large falls."²⁰ All along the Chaudière River there were spots where the men had to portage their boats or risk running difficult rapids and descending dangerous waterfalls.

The difficult terrain over which the expedition traveled in its route from Fort Western to Quebec was a major factor in the exhaustion that the men experienced. Although some suffered with it more than others, no one was exempt from the stress and strain of moving boats and supplies through an untamed wilderness for nearly fifty days. It is no surprise that physical suffering affected some of these men for the rest of their lives. The accomplishment of Arnold in getting through the wilderness at all with a band of men who had virtually no prior training or experience in such wilderness travel is almost beyond comprehension.

Food Supply: Time and Distance Estimates

In his travel guide tracing the route taken by the expedition, author Stephen Clark states that the distance from Cambridge to Quebec is 350 miles.²¹ Two journals contain an estimate of the distance to Quebec but are not in agreement regarding the distance to be traveled.²² Washington estimated the distance to Quebec as "two hundred ten miles."²³

Geologist Bruce Rueger has calculated the most accurate estimate of the distance the expedition traveled between Cambridge and Quebec. Based on an analysis of topographic maps and his own trek along part of the route, he described the march to Quebec as a "grueling ordeal of 640 kilometers" or 397 miles.²⁴ Rueger's conclusion regarding the distance doubles Washington's calculation.

Some writers have faulted Arnold and suggest that he under estimated the amount of food that would be needed to reach Quebec. In fact, Arnold's estimate of the number of days it would take to get through the wilderness was surprisingly accurate. Stephen Clark sums up Arnold's exceptional planning of the food supply as follows: "Arnold had calculated the time necessary to reach the French Canadian settlements along the Chaudière River where he planned to obtain additional food. He ordered the Continental commissary in Cambridge to issue provisions to each company for forty-five days. This estimate of time proved to be right on the nose. The expedition arrived on the shore of the St. Lawrence on Nov. 8, after forty-four days of travel from Fort Western."²⁵

The failure in food supply was not in the planning of the expedition or because of the allegedly faulty Montresor map.²⁶ The real cause of the decline in the food supply lies with external factors. The hurricane, the return of the Enos division with a disproportionate share of the food and the leaky boats made of green wood were all important factors that resulted in a severe shortage of food that almost destroyed the expedition.

Food Supply: The Enos Division Returns

One of the results of the early return of the three companies in the fourth division commanded by Colonel Roger Enos²⁷ was the immediate reduction in the amount of food for the rest of the expedition. As the last division in the march, Enos' men were obliged to carry most of the food for the entire detachment. By placing the bulk of his food supplies with Enos, Arnold acted on the assumption that the last division to travel the route would have an easier time because the others had made a trail for them to follow. When the Enos division left the expedition to return to headquarters, most of the food they were carrying went with them.

On the 25th of October, the Enos division made the decision to return to Cambridge. Although a vote of the officers present at a council was in favor of continuing, Enos's officers refused to continue and voted among themselves to return. When the Enos division was asked by the officers from the other divisions to leave some of their food, they agreed to give the army going forward some of their flour and pork. However, in the end, only two barrels of flour were provided, and no pork.²⁸ There is no specific list of the food that the fourth division took back with them to Cambridge, so the only fact known from the journals was that flour was left behind for the rest of the army. Many of those men who continued on to Quebec were convinced that Enos had more food with him for his three companies than they did for the ten companies going forward.²⁹ The Enos division's decision both to return and then not to provide more of their food to the men continuing on is beyond comprehension.

Bateaux: Use of Green Wood

One point that most histories of the expedition make is that the more than two hundred bateaux that were constructed for the expedition by Maine boat builder, Rueben Colburn, were made of green wood. There is an understandable reason for this which is that Colburn was charged with building two hundred boats in the space of just twenty days.³⁰ Since this was an unexpected new order for his company to fill, Colburn did not have nearly enough properly cured wood available or much time to build the required boats. He was under extreme pressure to complete the boats within the designated time frame and would not have been able to deliver the necessary bateaux required under his agreement with Washington without the use of green wood. Colburn realized that his most important task was the completion of the two hundred boats by the time Arnold's men reached his boat yard on the Kennebec River, and he took the appropriate measures to achieve that end. It is not clear how the problem of the green wood could have been avoided given the time frame for delivery of the bateaux.

Green wood shrinks and that shrinkage causes the wood planks to separate. This in turn would cause obvious problems of water seeping, or depending on how much the planks separated, pouring into the boat. As a result, when they were on the water, the boats tended to leak and cause water to collect in the

bottom. Most of the damage to the food supply was the result of water in the boats which then seeped into the wooden barrels in which the food was being carried.

Another characteristic of green wood is that it is much heavier to carry than a boat made of properly cured wood. This is because freshly cut wood can contain 40-60% moisture by weight, whereas cured or seasoned wood contains 15-20%.³¹ Some have estimated the weight of each bateau was over 500 lbs.³² This would be a significant factor to the men on the expedition because of the number of portages they encountered throughout the march. The extra burden of the boats created delays and resulted in severe exhaustion for the men.

Conclusion

The plan to conquer Canada turned out to be an unmitigated disaster. The colonies did not have the manpower, money or heavy artillery that would have been necessary to successfully achieve their objective of creating a fourteenth colony. It almost seemed like whatever could go wrong in the invasion of Canada did go wrong. Montgomery was delayed at Fort St. Johns and again at Montreal so he arrived much later than anticipated. After Arnold arrived at Quebec, his force was too small and too exhausted to mount an attack. When Montgomery and Arnold finally met up with each other in early December, they faced a number of problems that delayed any immediate action. Moreover, one of the key factors in the decision to invade Canada, which was the anticipated enlistment of numerous French Canadian volunteers, did not happen. Since the success of the invasion was based on the anticipated volunteers to be obtained in Canada, there was no plan in place to obtain American reinforcements that were needed to achieve the objective of the mission. Such reinforcements were not realistically available in Cambridge or anywhere else along the route.

The assault on Quebec by the combined Arnold and Montgomery forces finally occurred during a snowstorm on the night of December 31, 1775, just before the enlistments of many of Arnold's men were to expire. In the attack, Arnold was wounded and Montgomery was killed, leaving the army in Canada in the hands of less than competent General David Wooster, who was later dismissed from his position by the Congressional Committee. Most of Arnold's men³³ were captured by the British and put in prison. The assault was a failure. Six agonizing months later, the American army was forced to retreat from Canada before it was completely destroyed due to a continuing streak of bad luck, inadequate support in terms of money, manpower, cannons and supplies and the arrival of ____ British troops in ____ of 1776.

¹ For more information on Benedict Arnold, see the best available Arnold biography by James Kirby Martin, *Benedict Arnold Revolutionary Hero: An American Warrior Reconsidered*. New York: New York University Press, 1997.

² Senter Journal, 205. All journals cited are as found in Kenneth Roberts. *March to Quebec*. New York: Doubleday & Company, Inc., 1946.

³ Phillip Cash. "The Canadian Military Campaign of 1775-1776: Medical Problems and Effects of Disease." *Journal of American Medical Association*, July 5, 1976: 53.

⁴ This author provides a comprehensive list of the men who served with Arnold in his expedition to Quebec in his book, *Voices from a Wilderness Expedition: The Journals and Men of Benedict Arnold's Expedition to Quebec in*

1775. Bloomington, Indiana: AuthorHouse, 2011. The numbers of sick men who left the expedition and the number of men who went back with Colonel Roger Enos are taken from Table 2 at the end of Appendix II of that book

⁵ Arnold, Kenneth Roberts, *March to Quebec*, 53

⁶ Pierce, 662

⁷ Arnold, 54.

⁸ Squier, 623

⁹ Justin H. Smith, *Our Struggle for the Fourteenth Colony: Canada in the American Revolution*. New York, G.P. Putnam's Sons, 1907: 561-562.

¹⁰ Arnold, 54 ; Dearborn, 136; Meigs, 179 ; Senter, 208 ; Thayer, 255 ; Henry, 330; Pierce, 662.

¹¹ David Ludlum. *Early American Winters, 1604-1820*. American Meteorological Society, 1966: 90.

¹² Arnold, 57; Pierce, 667; Senter, Roberts, 210.

¹³ William Willis. *Journals of the Rev Thomas Smith*. Portland: Joseph S. Bailey, 1949: 279.

¹⁴ Schuyler to Hancock, January 10, 1775. AA, 4th, 4: 622.

¹⁵ The Great Carrying Place is the name assigned to the spot on the Kennebec River where the expedition left that river and trekked overland to the Dead River with the bateaux on their shoulders.

¹⁶ Stephen Clark. *Following Their Footsteps, A Travel Guide & History of the 1775 Secret Expedition to Capture Quebec*. Shipleigh, ME: Stephen Clark, 2003: 27.

¹⁷ Bruce F. Rueger. *Geologic Influences on Benedict Arnold's March to Quebec, 1775*. The Geological Society of America. Abstract of paper presented at 2006 Philadelphia Annual Meeting.

¹⁸ The Montresor map used by Arnold was created by Captain John Montresor, a British officer who made the trek from Quebec to Maine in 1761. See his journal in Roberts.

¹⁹ Lake Megantic is located just over the U.S./Canadian border in the Province of Quebec. The name in Abenaki Indian language means "where the fish gather."

²⁰ Bruce F. Rueger.

²¹ Stephen Clark, 5.

²² Haskell, 499, says he went 320 miles from Fort Western to Quebec. Morison, 510, stated that "we traveled a trackless wilderness of near 320 miles." Three journalists, Arnold, Oswald and Meigs, mention that the expedition took 45 days of provisions, but they did not provide an estimate of the distance.

²³ Washington Papers. Library of Congress. Enclosed in a letter from Joseph Reed to Nathaniel Green, Sept. 29, 1775.

²⁴ Bruce F. Rueger.

²⁵ Stephen Clark, 32.

²⁶ The Montresor map was the one used by Arnold. It was prepared by British Major John Montresor who made two trips from Quebec to Maine in the 1760's. The accuracy of the map has been questioned by some historians but Kenneth Roberts concluded that it was accurate except for one section.

²⁷ Roberts, 631-652; Richard G. Bell. The Court Martial of Roger Enos. *Connecticut Bar Journal*, Vol. 73, 1999: 428-461; Darley, *Voices from a Wilderness Expedition*, 203-210.

²⁸ Thayer, 256.

²⁹ Thayer, 257 ; Senter, 212-213.

³⁰ Colburn received his written instructions regarding the building of the bateaux from Washington on September 3rd and Arnold's forces arrived at Colburn's boatyard on September 23rd. Even assuming that he took advantage of advanced notice based on a letter from Arnold on August 29th, it is amazing that Colburn could muster sufficient men and equipment to complete the bateaux by the time Arnold reached his boatyard. The fact that green wood was used is not surprising. The fact that they averaged completing approximately ten bateaux per day is unbelievable.

³¹ www.blountweb.com/solidfuel/characteristic.htm.

³² Estimate of Hodding Carter III who built a bateau and reenacted the Arnold expedition in ____.

³³ Per my Table 3 in *Voices*, 383 men were taken prisoner.