

## The Long, Hard Winter of 1855-56

By Donald Sutherland

Winter of 1855-56 was the coldest winter of the 1850s and one of the five coldest ever from 1780-81 through 1864-65.

In the Mid-Atlantic and Northeastern United States, the winter saw a massive January snowstorm followed by extreme cold. Later, it witnessed one of the most severe Arctic air masses ever to visit this region in March. Finally, its last snows fell at the end of May.

August provided the first hint of the winter to come. The August 12, 1855 issue of the Council Bluffs *Bugle* reported of the weather in that part of Iowa<sup>1</sup>:

*On Wednesday night last [August 8] the mercury in our thermometer ran rapidly down from 90° to 50°. Cloudy and really cold on Thursday. Clear and cool at night; fine white frost in the morning. No vegetation injured that we have heard of. Guess the old fellow—Jack Frost—has found out his mistake and will stay away until a more reasonable time.*

Indeed, “Jack Frost” did “stay away until a more reasonable time.” As the calendar headed toward autumn, there was little new evidence of the approach of a severe winter. In fact, beyond the middle of September 1855, unseasonable warmth dominated the Northeastern United States. On both September 9 and September 12, the temperature soared to 90° in Boston.<sup>2</sup> By noon on September 18, the mercury had reached 85° in Boston.<sup>3</sup> However, during the afternoon “a cool easterly wind sprang up” and “a bountiful rain storm commenced which continued until sun down.”<sup>4</sup> According to descriptions, there was likely severe weather associated with the strong cold front that brought the rain, as the September 19, 1855 edition of *The New York Daily Times* [now *The New York Times*] reported that in Boston a “violent northeast squall prevailed.”<sup>5</sup>

This cold front broke the back of Summer 1855. On September 20, Salisbury, Connecticut suffered from a “very heavy frost.”<sup>6</sup>

On September 30, 1855, a torrential rainstorm swept the Mid-Atlantic region, bringing flooding to many areas. In a 7-hour period beginning at 5 p.m., Baltimore received 4.64” of rain.<sup>7</sup> “The Falls [likely the Jones Falls] rose to a higher point than at any time since the memorable flood of 1837. At midnight, a gentleman passing over Gay Street bridge stated that the water was then only about four feet below the sleepers of the bridge,” the Baltimore newspapers revealed.<sup>8</sup> Throughout Baltimore, there was widespread flooding of cellars.<sup>9</sup>

Further north in Philadelphia, the story was similar. “There is a heavy freshet [flood] in the Schuylkill River, caused by the rainstorm of yesterday,” came the October 1 report from Philadelphia.<sup>10</sup>

On October 5, snow fell at St. Louis, Missouri. The *St. Louis Democrat* reported, “[T]he day began with thick threatening clouds, and continued with now and then a slight drizzle, until about three o’clock in the afternoon, when the wind freshened from the west and north, and soon a severe storm of hail and snow broke over our city. Up to dark the white flakes—too damp to be called ‘feathery’—came down in their wonted, winter beauty... A snowstorm on the 5<sup>th</sup> day of October! Unheard of before. Never the like in the memory of the whitest head we ever knew.”<sup>11</sup>

Three days later on October 8, the rising winter probed the southeastern United States with its first frost. Charleston, SC “had a slight frost.”<sup>12</sup>

On October 13, Cairo, Illinois saw a 3” snowfall and snow also fell at Chicago.<sup>13</sup>

October 20-21 saw a powerful storm track into the Great Lakes region. *The New York Daily Times* reported the following concerning the Lake Michigan area, “A very heavy gale from the North-East sprung up during Saturday night, and raged with great violence till Sunday morning... It was a wild night on the Lake...”<sup>14</sup>

Behind this intense gyre, cold air plunged as far south as the Gulf Coast. On October 23, the weather in New Orleans was described as “very cold.”<sup>15</sup>

A day later, parts of Kentucky and Tennessee saw snow. “It has been snowing here [Louisville, KY] this afternoon. A snowstorm at Nashville was also experienced today,” *The New York Daily Times* reported.<sup>16</sup>

Snow fell at Concord, New Hampshire on October 28.<sup>17</sup>

Nevertheless, up to mid November, the pattern continued to support storms that headed into the Great Lakes region. On November 4, a storm brought snow to Laramie, Kansas and that city saw frequent snowfall through December 2.<sup>18</sup> This storm moved into the Great Lakes region on November 5 lashing the Lake Michigan area. The Chicago press reported, “The high wind from the southward... proves to have been a most terrible gale at the lower end of the lake, where it came from the southeast... The storm was most severe...”<sup>19</sup>

During the November 16-17 period another strong storm affected Chicago, but this time the storm tracked to the City’s south and likely toward the St. Lawrence River Valley bringing “a severe gale from the eastward.”<sup>20</sup> At Chatham, New York 10” of snow fell on November 17 before the precipitation changed to “a most violent rain” in the evening.<sup>21</sup>

Further south, in New York City, the storm “made sad havoc with signs, awnings, &c., and some damage was done to the streets in South Brooklyn by the heavy fall of rain.”<sup>22</sup>

Up in New England, the storm ended as a period of snow. In Boston an inch of snow fell but melted soon afterward.<sup>23</sup> A sunny but cool day followed.<sup>24</sup>

On November 19, with colder air in control, some light snow fell in Boston and an inch of snow accumulated in Bangor.<sup>25</sup>

On November 21-22, an intensifying storm near the New England coast brought rain to eastern New England and 1"-5" of snow from New Hampshire to Halifax.<sup>26</sup> In Boston, "it rained very heavily, when it cleared off cold, with violent gales from the northwest."<sup>27</sup>

Not long afterward, the mild weather returned. With respect to weather conditions, the conditions for November 28 were described as follows<sup>28</sup>:

*Albany*: "The Canal is navigable along the whole line, and the weather very mild, the thermometer standing at 52°."

*Buffalo*: "The weather here continues mild and pleasant, and Canal navigation is unimpeded."

*Rochester*: "There is no ice in the canal. The weather is moderate."

A cold front blasted across the region the following day. At Albany, there was "a slight fall of snow" and the afternoon weather was reported as "cold" with "the thermometer standing at 23° and falling."<sup>29</sup> The weather at Boston was reported to be "clear and cold."<sup>30</sup>

November 30 was another cold day with a morning temperature of 24° in Albany.<sup>31</sup> The Erie Canal was icing over with some 800 boats caught in the ice between Schenectady and Utica.<sup>32</sup>

Afterward, the weather continued cool but not excessively cold. Sufficiently mild readings returned so that the ice on the Erie Canal melted away. Then, into the second week of December, the Erie Canal remained unimpeded by ice. Reports for December 4, 1855 included<sup>33</sup>:

*Canajoharie, New York*: "The Canal is in navigable condition, and boats are passing freely... Weather fine and growing warmer."

*Rochester*: "There is no ice in the Canal here, and boats are moving briskly... Weather delightful."

*Syracuse*: "The Canal is open and the weather cold, yet pleasant."

*Utica*: "The canal is open, and there is no ice."

On December 6, the story remained the same as the weather was described as "mild and wet" at Buffalo and "mild and pleasant" at Rochester.<sup>34</sup> Temperatures turned cooler afterward and on December 8, Buffalo was reporting "raw and cold" weather while

Syracuse was reporting “clear but cold” weather.<sup>35</sup> The Erie Canal remained open to shipping.<sup>36</sup>

With the turn to colder weather, the blossom on the sweet honeymoon with a mild autumn was beginning to fade. Though the romance would linger for a while longer, winter would begin to make its presence felt more and more frequently.

Even as the weather had turned colder along the Erie Canal, a strong storm was hammering the shoreline from the northern Mid-Atlantic region to New England. The December 8-9, 1855 storm caused property and tree damage.

In Jersey City, “the western end of the new railroad depot and ferry-house now being erected at the ferry... was blown in, and the building was considerably damaged.”<sup>37</sup> In Brooklyn, the storm caused “considerable damage” and “the steeple of St. Mary’s Church... was blown down and shattered into fragments... The roof of the Sugar Refinery on South First Street... was also blown off, and was carried a distance of 200 feet over a block of buildings into Second Street. In the Western District the damage was confined to signs and awnings... Along the wharves several vessels broke from their moorings, but no damage of consequence was done.”<sup>38</sup> In Manhattan, “the chimneys of private buildings, No. 547 Grand Street, and No. 130 Madison Street, were blown down...”<sup>39</sup> In Boston, although the “storm and gale... were very severe,” no serious damage was inflicted on coastal shipping interests.<sup>40</sup>

Following the storm, on December 10, the report from Buffalo was that “It has been very cold and windy here all day, and snow has just commenced falling.”<sup>41</sup> The weather had also grown very cold in Albany and by December 11, the Erie Canal “was covered with ice.”<sup>42</sup>

On December 13, a modest snowstorm affected New York City through Boston. The December 14, 1855 edition of *The New York Daily Times* reported of New York City, “We had a noble snowstorm yesterday—the first one worth speaking of this season. On awaking most good people found two or three inches of snow on their roofs. It snowed on all day—and though it melted too fast for sleights to come out, it gave the boys an hour or two in Paradise. Sleds and snow-balls were very prevalent, as the snow-balling is never a nuisance the first day. It made one younger to see the sport.”<sup>43</sup> In Boston, a “brisk snowstorm commenced” during the evening.<sup>44</sup>

Still, the battle for control of the seasons had not yet ended. After “unpleasant” weather on December 22, the following day was “charming” in Philadelphia.<sup>45</sup> In Boston, the weather was “delightful—as clear and as balmy as an April day.”<sup>46</sup>

The December 24-25 period saw another storm affect the eastern United States. Following this storm, winter gained control of the weather and a remarkable siege of cold and snow would follow.

During the evening of December 24, snow began to fall in Buffalo and “the promises of sleighing” were “good.”<sup>47</sup>

On December 25, Philadelphia experienced “a drizzling rain storm” along with “very cold” weather.<sup>48</sup> New York City experienced a cold rainstorm.<sup>49</sup> Further north in Boston, snow and rain battled it out. *The New York Daily Times* reported of the weather in Boston, “Today [December 25] has been one of the most inclement of the season, raining, hailing and snowing, by turns, with a strong northeast gale.”<sup>50</sup>

December 29 saw a significant snowstorm affect the Northeast, with Boston being blanketed by 8” of snow.<sup>51</sup> New York City received an appreciable accumulation that resulted in “hundreds of sleighs dashing along Broadway, filled with those whose hearts seemed in consonance with the merry jingling bells.”<sup>52</sup> In its wake was a “cold and clear” day with “excellent sleighing.”<sup>53</sup>

New Year’s Eve in New York City was snowy.<sup>54</sup> By January 1, “there were large quantities of thin ice gathered in the Fulton Ferry slips”<sup>55</sup> and “the sleighing was fine.”<sup>56</sup>

By January 2, a series of storms moved through the southern United States. At Alabama, “Continued excessive rains...interrupted travel...”<sup>57</sup> This storm grazed New York City with a “fine rain...which froze as it fell and paved the whole City with something more slippery even than the Russ.”<sup>58</sup>

Following the precipitation, somewhat milder weather occurred on January 3, with the temperature rising above freezing in New York City.<sup>59</sup> The milder temperatures only lasted briefly.<sup>60</sup> Even as New York City was enjoying a brief breath of more temperate readings, it was raining “in torrents” in Columbia, South Carolina.<sup>61</sup> This latest storm then made a turn northward and the colder air changed the rain to freezing rain and then sleet in Columbia.<sup>62</sup>

The result was a great blizzard, which swept much of the eastern United States from January 4-6. The snowstorm’s impact was so widespread that on January 24, 1856, the United States Patent Office issued the following circular<sup>63</sup>:

*UNITED STATES PATENT OFFICE  
WASHINGTON, D.C., Jan. 24, 1856*

*DEAR SIR: From accounts in the newspapers it would appear that an unprecedented storm of snow, sleet, or rain occurred over most of the tract of country lying east of the Mississippi, and perhaps beyond, from the 4<sup>th</sup> to the 6<sup>th</sup> of the present month. In order to determine the limits, times of commencement and ending, direction, amount, and nature of the precipitation of said storm, will you please to answer the following questions as early as convenient, and return the same to this office by mail?*

*Yours, very respectfully,  
C. MASON, Commissioner.*

*Face of the sky the day previous to the commencement of the storm—whether fair, partially or wholly cloudy?*

*Direction and force of the wind the days preceding and during the storm.*

*Hour of commencement of the storm.*

*Hour of ending of the storm.*

*Amount in inches of snow, sleet, or rain.*

*Number of days the ground was covered with snow or ice since the storm.*

As the storm developed and swept toward the Mid-Atlantic and Northeastern United States, it dumped 8” of snow on Mobile, Alabama.<sup>64</sup> Across southern Alabama and Georgia, heavy rain was the rule.<sup>65</sup> There were concerns of flooding in Savannah and Charleston.<sup>66</sup>

After the colder air pushed into the South, a major ice and sleet storm ensued in Columbia, South Carolina with a Columbia newspaper reporting on January 5, “We were last night visited with the most severe storm of sleet we ever experienced in this latitude. The rain froze as it fell, and today everything is cased in ice, from a half inch to an inch in thickness. The shade trees have suffered severely, and being entirely coated over, give the streets a very singular appearance. The destruction of fruit trees is immense. The lines of Telegraph are also down in many places, and it will probably be a week before operations are resumed. Fully one-third of the wire of the line along the Camden Railroad is lying on the ground and in many cases even the poles are prostrate. Forest trees are broken by the weight of ice, have fallen across the line in many places. Much damage has been done by the recent inundations in lower Georgia and Alabama.”<sup>67</sup>

At 9:30 a.m. on Saturday, January 5, snow began to fall at Baltimore.<sup>68</sup> The snow continued to fall throughout the day “in a manner indicating that it is to be one of the ‘old fashioned’ sort, as they say further North.”<sup>69</sup> By the next day, the City’s roads were “all blocked up with snow.”<sup>70</sup>

The storm slowly climbed the East Coast and by afternoon, heavy snow was swirling over the Philadelphia area. “The snow fell on Saturday afternoon and during the night in good earnest. The cold was intense—the thermometer being several degrees below the freezing point—and the snow was dashed about by the wind at a furious rate. In many places the streets were completely blocked up by snow several feet in height...”<sup>71</sup>

At Trenton, “One of the most violent snowstorms which has occurred for a long time, set in on Saturday, and continued till near daylight yesterday [Sunday] morning, the wind blowing a perfect gale during the storm, drifting the snow to the depth of four or five feet in many places. It is estimated that the average depth of snow was nearly two feet, and much animation will probably be exhibited in our streets for some days to come, as the sleighing is most excellent.”<sup>72</sup>

At Newark, the first snowflakes began to fall at noon on January 5 with the snow continuing until near the morning.<sup>73</sup> “It was one of your old-fashioned snowstorms which left its mark in all sorts of fantastic shapes which the drifting wind could fashion...”

Nearly two feet of snow fell, but it drifted badly,” *The New York Daily Times* recounted.<sup>74</sup>

The snowstorm moved into New York City Saturday afternoon and continued into Sunday morning. *The New York Daily Times* reported, “The last was one of the greatest snowstorms that has visited our City for many years. It set in from the northeast [wind direction] on Saturday afternoon, and continued with increasing violence until Sunday morning. The cold, gusty wind by which it was accompanied caused the snow to drift so deeply as to render the thoroughfares nearly impassable.”<sup>75</sup> Snow drifts on the tracks of the New York-New Haven Railroad were 10-15 feet high.<sup>76</sup>

The conditions were so severe on January 6 that the afternoon services to mark the opening of the newly renovated Bloomingdale Reformed Church had to be canceled. Hopper Striker Mott, a member of the New York Historical Society wrote in her book on New York City’s Bloomingdale neighborhood, “When the building, in its new dress, was opened for divine service, Jan. 6, 1856, such a deep snow was on the ground that Dr. De Witt [Minister Thomas De Witt<sup>77</sup>], who was expected, was unable to be present and the afternoon service was abandoned.”<sup>78</sup>

At Brooklyn, the storm “raged...most fearfully, the snow drifting as it fell rendered the roads impassable. In Brooklyn the City Railroad Company kept their snow-plows in motion Saturday night until a late hour, when they, also were completely blocked up—one on Myrtle Avenue could not be moved either way, and remained in this position all day yesterday [January 6]... The snow, on an average, is not less than 18 inches deep, and is drifted very much—in some places as high as 12 feet.”<sup>79</sup>

With very cold air advecting into the storm, the snow shield exploded northward ahead of the storm. In New Haven, the snow also commenced around noon on January 5, just as it did at Newark.<sup>80</sup> The report from that city revealed, “We have been visited by one of the heaviest and most violent snowstorms known to the earliest inhabitant... There must be an average depth of at least eighteen inches to two feet, and the high wind which prevailed during its fall, has drifted the snow badly—in some instances piling it as high as fifteen feet. The streets...were almost impassable, and but few persons dared to venture out. All the railroad tracks are blocked up, and travel must be seriously impeded.”<sup>81</sup>

At Hartford, an estimated 10”-12” fell, which “drifted badly.”<sup>82</sup>

At Boston, “[T]he flakes began to fall soon after noon, and a violent north-east storm commenced which lasted until yesterday [January 6] forenoon. The streets of Boston have seldom been so completely blocked up by a single storm as they were...—the average depth being estimated at fifteen or eighteen inches, while in some places there were high drifts.”<sup>83</sup>

Springfield, Massachusetts saw a prolonged period of virga before the storm took hold. *The New York Daily Times* reported, “The weather whipped around Friday night, after a

mild day, severely cold and Saturday morning at 7 o'clock the mercury was 4° below zero. The day continued terribly cold, the most so of the season, and it was only after long struggling the inevitable storm that burdened the clouds could 'break the ice' and reach the ground. But towards night it came thick and cold and windy, and continued all night and up to church time Sabbath morning. There were some twelve or fourteen inches of the snow on an average, but the wind piled it high in some places, and swept it off in others."<sup>84</sup>

At Cape Cod, the storm was also fierce. James Small, Keeper of Highland Lighthouse, observed on January 6, "We had a thick snowstorm all night, with a heavy gale from the east. At 4 o'clock this morning the wind hauled to the north and is now north-east. It is the most distressing storm I ever knew. The dwelling house attached to the light suffered considerable damage by having some of the windows and doors blown in."<sup>85</sup>

On January 6, Eben Smith, an Underwriters' Agent, wrote of the weather at Provincetown, Massachusetts, "We are now in the midst of one of the most severe snowstorm that we have experienced for many years. It commenced at 6 o'clock last evening. The roads are all blocked up with snow. Nothing from the back of the Cape as yet."<sup>86</sup>

The storm had ended in Washington, D.C. by January 6 with clear skies returning. The City had received about 8" of snow.<sup>87</sup> At Winchester Virginia, 8" also fell while 12" was recorded at Petersburg, Virginia.<sup>88</sup>

At 8 pm on January 6, Halifax was well in the midst of the blizzard. The report from that Canadian city was, "A furious gale and snowstorm prevail here. The snow is already four feet deep, and there are no immediate prospects of an abatement."<sup>89</sup>

Even after the storm had departed, the affected region remained a winter wonderland. *The New York Daily Times* described the scene in New York City as follows<sup>90</sup>:

*A City of marble! At least so New York looked yesterday [January 7]. The streets of marble and sidewalks of marble and the housetops all of marble. Marble, too, white and pure, were all the lamp-posts and railings and the fences. Chiseled rather roughly out were roads along the main streets, just wide enough for two and in the cross streets for one sleight at a time or not at all, and a narrow gangway on the sidewalk; this is all that passengers on foot or in sleighs could claim. But if one got out of a sleigh he had to go to the corner before he could get to the sidewalk, for the snow was piled up four, six, eight feet high, where it had been shoveled out of the passage-ways.*

*Everybody knows what a carnival there is here when the sleighing is good. It was capital yesterday, providing only the teams were strong enough. And the riders piled onto the public sleighs by scores and hundreds. Over a hundred we counted in several of the carry-alls, with only four poor, steaming wrecks of horses to drag them through...*

*The riders were very merry—and some of them drunk. They sang and yelled and roared all sorts of tunes...On the boxes of some of the sleighs were perched organ-grinders. On one sat the old bagpiper, giving down lustily. In others men went armed with horns and penny-whistles, oboes and tin-pans, and of all unearthly and merry sounds the City was full...*

*The narrow streets were fairly blockaded and but few attempts were made to surmount the barriers. New Street was nowhere, and many other such alley-ways were in the same condition...*

**Total Accumulations:**

Boston: 15"-18"

Bridgeton, New Jersey: 9"

Hartford: 10"-12"

Millville, New Jersey: 12"

Mobile: 8"

New Haven: 18"-24"

New York City: Up to 18"

Newark: Nearly 24"

Petersburg, Virginia: 12"

Near Poughkeepsie, New York: 8"-10"

Raleigh: 6"

Salem, New Jersey: 12"

Springfield, Massachusetts: 12"-14"

Trenton: Nearly 24"

Washington, DC: 8"

Winchester, Virginia: 8"

Behind the blizzard, a frigid air mass covered the Northeast and Mid-Atlantic regions. In addition, a fresh surge of even colder air was headed eastward. Reports for January 7 included<sup>91</sup>:

*Baltimore:* "The weather is very cold."

*Boston:* "The railroads are being slowly relieved from the blockade of snow, but serious detention to trains still exists."

*Bridgeton, New Jersey:* "Snow nine inches deep. Thermometer eight degrees below zero."

*Millville, New Jersey:* "Snow a foot deep. Mercury five degrees below zero."

*Philadelphia:* "The morning train from New York reached here about noon today. The Western Road [Railroad] is not yet open; the mails arrived last night in a sleigh."

*Raleigh:* "The snow is six inches deep...and badly drifted."

*Salem, New Jersey:* “The snow is a foot deep here. At four o’clock this morning the thermometer stood at four degrees below zero.”

*Washington, DC:* “The thermometer at 8 o’clock this morning stood at 10° above zero...”

At Jamaica Plain in Boston, “several thermometers...were at 17° to 18° below zero...”<sup>92</sup>

As the day progressed, a period of snow swept eastward with such cities as Chicago, Cincinnati, Cleveland, Baltimore, and Washington, DC seeing some snow.<sup>93</sup> The additional snow brought the snow-cover between Wheeling, West Virginia and Cumberland, Maryland to two feet.<sup>94</sup>

On account of the cold temperatures, there was little melting of snow. For January 8, *The New York Daily Times* reported the following for New York City, “The sleighing was very good..., except in the more traveled thoroughfares, where the snow was very deep; and because there has been no warmth to melt and pack it, it was over ankle deep, and as feathery as the hour it fell.”<sup>95</sup> Meanwhile, the East and Hudson Rivers were filled with floating ice.<sup>96</sup>

At the same time, very cold air covered the Ohio Valley and was continuing to spill into the eastern United States. Reports for select cities on January 8 included<sup>97</sup>:

*Chicago:* “The thermometer here indicates seventeen degrees below zero.”

*Cleveland:* “It is intensely cold here, the thermometer being eight degrees below zero.”

*Detroit:* “The thermometer here is 7° below zero.”

Meanwhile, at Philadelphia, “[T]he mercury in an old standard thermometer” fell to –6° and stood at only 10° at noon, “the lowest at noon for 32 years.”<sup>98</sup> Further north in Newark, New Jersey, the temperature ranged from –8° to –10° on some thermometers.<sup>99</sup>

In Buffalo, the continuing passage of extremely cold air over Lake Erie resulted in a lake effect snowstorm. During the morning, temperature started the day at 4° and a “driving snowstorm” had gotten underway.<sup>100</sup>

January 9-10, 1856 saw another bitterly cold air mass in control of the Northeastern and Mid-Atlantic region. Many cities saw temperatures drop below zero. Buffalo remained in the midst of lake effect snows that had commenced the previous day, and the snow fell during subzero cold.<sup>101</sup>

*The New York Daily Times* reported the following conditions for January 9<sup>102</sup>:

*Baltimore*: “The weather here is clear and intensely cold; in fact, so cold that our thermometer could not reach it. Last night was the most severe we have experienced for years.”

*Boston*: “At 8 o’clock this morning, the thermometer here stood at 2° below zero.”

*Cincinnati*: “The thermometer is at 10° below zero. At Springfield, Ohio, at daylight, it was 20° below.”

*Cleveland*: “The thermometer is 17° below zero.”

*Marietta, Ohio*: “The thermometer here, at sunrise this morning, stood at 11° below zero. The Ohio River is frozen nearly solid. We have excellent sleighing although there is but two inches of snow on the ground.”

*Philadelphia*: “This morning the thermometer at 7 o’clock stood at 2 ½° below zero, and at 10 o’clock 2 ½° above zero. The Delaware River is frozen hard opposite this city, except where it is kept open by the ferry boats.”

*Springfield, Massachusetts*: “This is the coldest day we have experienced this season. The thermometer, at 7 A.M., was 14° below zero.”

*Washington, DC*: “The thermometer at 8 o’clock this morning indicated 3° above zero.”

New York City shared in the subzero cold, with a low temperature of  $-5^{\circ 103}$  with a temperature of  $-22^{\circ}$  reported in the countryside well to the north.<sup>104</sup> From 2 a.m. through 9 a.m., the mercury remained at depressed levels below zero<sup>105</sup>:

January 9, 2 a.m.  $-2^{\circ}$   
January 9, 3 a.m.  $-3^{\circ}$   
January 9, 4 a.m.  $-4^{\circ}$   
January 9, 5 a.m.  $-4^{\circ}$   
January 9, 6 a.m.  $-5^{\circ}$   
January 9, 7 a.m.  $-5^{\circ}$   
January 9, 8 a.m.  $-3^{\circ}$   
January 9, 9 a.m.  $-2^{\circ}$

Perhaps as remarkable, the daily mean temperature for the December 26-January 9 period had come to  $17^{\circ}$ . The January 10, 1856 edition of *The New York Daily Times* reported, “The mean temperature of the last fifteen days has been unusually low, being 10 deg. At sunrise, and 24 deg. A 3 p.m. We seldom have so long a continuance of consecutive cold. Excepting only 3d inst [January 3], the thermometer has not risen above the freezing point once during that time, even at the warmest part of the day.”<sup>106</sup> For New York City, this was the longest period of extreme cold noted in more than a decade.<sup>107</sup>

Although sleighing conditions were excellent, the extreme cold was increasingly keeping people indoors. “The sleighing improves hourly. The snow in the thoroughfare is packed down harder than before, and there is not a ton less of it in all the City than there was when the storm ended, *The New York Daily Times* observed, adding, “The night was too cold for sleigh-riding, and most of those generally disposed to the sport were wise and stayed in doors.”<sup>108</sup>

*The Brooklyn Daily Eagle* added, “Everything is frozen up. The East River is nearly covered with fragments of ice, ready to consolidate in large fields, and frosty vapor rises from the surface as from boiling water.”<sup>109</sup>

January 10 was another severely cold day. At New York City, the mercury bottomed out at  $-3^{\circ}$  and spent seven hours below zero<sup>110</sup>:

January 10, 1 a.m.  $-1^{\circ}$   
January 10, 2 a.m.  $-2^{\circ}$   
January 10, 3 a.m.  $-2^{\circ}$   
January 10, 4 a.m.  $-3^{\circ}$   
January 10, 5 a.m.  $-3^{\circ}$   
January 10, 6 a.m.  $-2^{\circ}$   
January 10, 7 a.m.  $-1^{\circ}$

*The New York Daily Times* described the weather in New York City on January 10 as, “Another desperately cold day. Sleigh-driving becoming less popular—rapid walking more agreeable—traveling on a dog-trot most popular of all—promenaders in Broadway considerably diminished—ladies, with rare exceptions, non sunt inventre—men with heads muffled up, their breath freezing as soon as emitted from their nostrils—horses with icicles depending on their noses for safety—drivers looking very blue—snow crispy and slippery...”<sup>111</sup> With a shortage of sleighs, some sleighs were commanding prices of up to \$15 per ride.<sup>112</sup> In 2003 dollars, that price amounted to almost \$284.<sup>113</sup>

The waters in and around New York City continued to be clogged with ice. “The East River last evening [January 10] was filled with large masses of floating ice, which seriously interrupted the passages of the ferry-boats... The Sound steamers due yesterday morning [January 10] were all a long way behind their time. The *Elm City* from New Haven reports having encountered large quantities of drift ice between the City and Sands’ Point, and the Hellgate Pilots state that there is more ice about Throgg’s Neck and Sands’ Point than anywhere else in the East River,” the newspaper revealed.<sup>114</sup>

The severe cold was not confined to the New York City area. Reports from other parts of the eastern United States included<sup>115</sup>:

*Chicago*: “The weather continues intensely cold. Thermometer  $19^{\circ}$  below zero.”

*Cleveland*: “Thermometer this morning  $7^{\circ}$  below zero.”

*Frankfort, Kentucky:* “Thermometer 16° below zero this morning.”

*Highland Lighthouse, Cape Cod, Massachusetts:* “[T]he wind is blowing a gale from the northwest, and the weather is intensely cold.”

Meanwhile, lake effect snows continued to attack Buffalo even as the cold was beginning to ease there. “The storm here continues unabated, but the cold is moderating. The Lake Shore Road [Railroad] is blocked up. No trains came through yesterday,” was the report from that city.<sup>116</sup> At Utica, a “severe snowstorm and wind...prevailed.”<sup>117</sup> However, the cold was also reported to have begun to moderate in Cleveland.<sup>118</sup>

Along the East Coast, the combination of the low temperatures and heavy snow from the January 4-6 blizzard continued to impede some trains. The Baltimore-bound train that left Philadelphia at 9 a.m. on January 10 was blocked between Philadelphia and Wilmington, Delaware by “frozen snow drifts a foot deep.”<sup>119</sup>

Later in the day, milder air began moving into the East and January 11 was noticeably milder than the days that preceded it. “The weather took a short bend Thursday [January 10] morning, and during all Friday there was ‘a glow,’ the wind stopped blustering, the sun had a genial warmth in it, and the fine snow-dust on the clean pavements of the sunny side of the streets was melted...,” *The New York Daily Times* reported.<sup>120</sup>

Nevertheless, the snow still proved to be an impediment to the Long Island Railroad’s operations. “The snow still remains an obstruction on the Long Island Railroad, notwithstanding considerable exertions have been made by the Company to remove it,” *The New York Daily Times* reported.<sup>121</sup>

Further south, Baltimore Harbor and the Potomac River below Mount Vernon, Virginia were closed on account of ice.<sup>122</sup> Meanwhile, the Baltimore-bound train remained stuck in snow.<sup>123</sup>

January 11-12 witnessed another “severe storm of sleet and snow” in Columbia, South Carolina.<sup>124</sup>

This storm moved northward and during the evening of January 12, yet another winter storm had moved into the Mid-Atlantic and Northeastern United States. On January 12, it was reported in Washington, DC that it “is now snowing again, with the wind from northeast.”<sup>125</sup>

Later that day in New York City “it began to snow, and by midnight [January 13] the City was enjoying one of the finest of old-fashioned snowstorms. Before morning, however, the snowstorm had melted into a rainstorm and everybody’s sidewalk was covered thick with ‘slosh.’”<sup>126</sup> Through January 13, a combination of rain and mist fell, though the precipitation changed back to snow during the evening before ending.<sup>127</sup>

All said, New York City saw a total accumulation of 5.5” (5.0” on January 12 and 0.5” on January 13), which brought the City’s snowfall since December 26, 1855 to “three feet.”<sup>128</sup>

At Philadelphia, the rain “melted most of the snow” that had fallen earlier in the storm and at Baltimore, a “violent storm of wind and rain succeeded the snowstorm” leading to street and cellar flooding.<sup>129</sup>

Up in Boston, the snow that fell during the night of January 12 was “badly frozen” and it was snowed “steadily” during the morning of January 13.<sup>130</sup> The railroads were described as “almost impassable.”<sup>131</sup> Later, the snow changed to sleet in Boston.<sup>132</sup>

During the January 13-14 period, Halifax saw “a heavy snowstorm” change to rain, as did Sackville and St. John, New Brunswick.<sup>133</sup>

Further west, this storm brought a significant snowfall to the Ohio Valley and to western New York State. By January 14, Cleveland had received a foot of snow.<sup>134</sup> At Buffalo, lake effect snow augmented the accumulations. On January 14, a “violent snowstorm” had been raging since the night of January 12 with the City’s snow-cover having reached an average of 30”.<sup>135</sup>

On January 17, it was observed at Cairo, Illinois, “There is more ice in the Ohio River than was ever before known. The river on this side is frozen in this vicinity more than 100 feet from shore.”<sup>136</sup>

On January 20, a snowstorm affected the Mid-Atlantic states. Reports from the region included<sup>137</sup>:

*Baltimore*: “Snow began to fall here at an early hour this morning, and continued till evening. It is quite cold.”

*Philadelphia*: “It commenced snowing here at 9 o’clock this morning, but as yet, only a small quantity has fallen.”

*Washington, DC*: “Snow commenced falling here at daylight this morning, and is now ten inches deep. The temperature mild.”

This storm continued into January 21, with Richmond receiving six inches by the evening of January 21.<sup>138</sup>

The eastern United States was not the only region experiencing unusual cold. *The New York Daily Times* reported, “The weather throughout Texas has been exceedingly cold. At Clarksville, Red River County, snow has remained on the ground since last December. The Brazos River is frozen so firmly that, at Traco, teams cross on the ice.”<sup>139</sup>

January 25 saw the start of another prolonged bout of much below normal temperatures. At New York City, the high temperature was 16° and at Boston, the 1 pm temperature stood at just 8°. <sup>140</sup> Fierce cold also gripped parts of the Plains States, with Omaha reporting a reading of -10°. <sup>141</sup> January 25 and January 26 saw the temperature drop to 9° and 8° respectively in New York City. <sup>142</sup>

On January 27, the Mid-Atlantic and Northeast regions experienced a period of light snow with 2” falling at Washington, DC before the snow changed to a “hard” rain and Philadelphia receiving an inch. <sup>143</sup> New York City received two inches of snow before a changeover to light freezing rain. <sup>144</sup>

On January 28, a second storm following closely on the heels of the previous system brought additional snow to New York City <sup>145</sup> not to mention Philadelphia and Boston. <sup>146</sup>

On January 29, the temperature rose to 36° in New York City, but the next day saw colder air spill into the East yet again. <sup>147</sup> Meanwhile a report from Texas noted, “The weather continues very severe in the North and Upper Brazos, and the thermometer has fallen as low as one degree below zero...” <sup>148</sup>

New York City received an additional 2” of snow on January 31. <sup>149</sup>

For the month, the temperature failed to reach 40° at New Haven where the highest temperature was just 38°. <sup>150</sup> No previous winter back to 1780-81 saw such a cold maximum reading for January. <sup>151</sup>

January was also very cold in the Deep South. *The New York Daily Times* reported:

“The steamer St. Nicholas, which left New Orleans on the 10<sup>th</sup> of January, arrived at Cairo (Illinois) on the 27<sup>th</sup> having been fourteen days on the way. When she passed Natchez a snowstorm entirely unprecedented in that latitude had covered the ground to the depth of six inches. The St. Nicholas reached Napoleon, Ark., on the 9<sup>th</sup> when she was compelled by the running ice to lie up until the morning of the 25<sup>th</sup>, when she once more raised steam, and succeeded in reaching Cairo on the 27<sup>th</sup>. The severity of the Winter is without parallel in Southern annals. The following dispatch from Cairo, dated 29<sup>th</sup> January gives additional particulars:

*The steamer David Tatum has just arrived from New Orleans, three weeks out, with a big trip...*

*Tennessee River full of floating ice, but navigation is not seriously obstructed. There are twenty-four boats in port here, some of which are heading for New Orleans, but most of them are waiting for the ‘moving of the frozen waters.’ Weather clear and cold.”* <sup>152</sup>

January ended cold and February began on a similar note. In New York City, February 4 marked the end of an eleven-day stretch that saw a mean temperature of 19.2°. <sup>153</sup> Daily temperatures during this period were as follows <sup>154</sup>:

January 25: High: 16°; Low: 9°  
January 26: High: 26°; Low: 8°  
January 27: High: 24°; Low: 18°  
January 28: High: 28°; Low: 22°  
January 29: High: 36°; Low: 24°  
January 30: High: 36°; Low: 16°  
January 31: High: 24°; Low: 14°  
February 1: High: 32°; Low: 18°  
February 2: High: 24°; Low: 11°  
February 3: High: 13°; Low: 4°  
February 4: High: 15°; Low: 4°

At Lawrence, Kansas, the temperature plunged to  $-26^{\circ}$  on February 3 and  $-30^{\circ}$  on February 4.<sup>155</sup> These readings match and exceed the all-time low temperature of  $-26^{\circ}$  in nearby Topeka set on December 23, 1989.<sup>156</sup>

Elsewhere, bitterly cold readings prevailed. Reports included<sup>157</sup>:

*Baltimore*: “The weather is intensely cold.”

*Chicago*: “The thermometer here at 7 o’clock this morning indicated  $20^{\circ}$  below zero.”

*Cincinnati*: “The thermometer this morning at 7 o’clock stood at  $18^{\circ}$  below zero.”

*Independence, Missouri*: “A dispatch dated today, from Independence, Mo., to W. M. F. Magraw, Mail Contractor on the Plains, now here, states that the thermometer is  $22^{\circ}$  below zero, and the snow [snow-cover] three or four feet deep on a level on the Plains.”

*Philadelphia*: “The weather here is extremely cold, and travel is somewhat interfered with.”

*Rochester, New York*: “The weather in this locality, during the past 48 hours, has been colder than at any time this Winter, the thermometer ranging from zero to  $17^{\circ}$  below.”

On February 4, New London (Connecticut) Harbor was also “closed by ice, and persons cross with safety.”<sup>158</sup>

At New York City, *The New York Daily Times* reported, “Our rivers and bays are very much obstructed with ice, which has been the cause of considerable damage to shipping... The ferry boats plying across the East and North [Hudson] Rivers have been necessarily very irregular... The Staten Island Ferry, of course, ran but one boat, and it is not expected they will have any more until some philanthropic party raises and repairs the *Columbus*, or until the weather will allow them to use their summer ones.”<sup>159</sup>

In western New York State, railroads were “blocked” by the heavy lake effect snows that had been falling across that region in the days leading to February 4.<sup>160</sup>

A February 5 report from Providence indicated, “The river is closed by ice, and the boats to Newport and Fall River have ceased running.”<sup>161</sup>

On February 5, the cold weather continued, though the temperature was not quite as harsh. At noon, the temperature stood at 25° in New York City.<sup>162</sup> At Marietta, Ohio, the temperature stood at –11° for the low.<sup>163</sup>

The railroads in the vicinity of Buffalo remained “completely blocked up” and near Rochester, the “Rochester and Syracuse old Road” was “still blocked up” with many people “snow bound...waiting an opportunity to leave town.”<sup>164</sup>

February 6 in New York City witnessed “a little thawing” around mid-day “but the icicles pendant from our window-shades were longer at sunset than at noon.”<sup>165</sup> Meanwhile the rivers and bays around the City remained “completely filled with drift ice.”<sup>166</sup>

In one case, *The New York Daily Times* disclosed, “Early in the morning, a man got upon a large cake of ice from Pier No. 1, and was carried on it over to Jersey City. Finding that he could not make a safe landing there, he stuck to his ‘cake’ and floated round with the tide, until he again came to the New York shore.”<sup>167</sup>

At Buffalo, it was again “snowing fast”<sup>168</sup> and a foot of snow fell at St. Louis.<sup>169</sup> This precipitation spread to the east with milder air moving up the coast.

The reports for February 7 included<sup>170</sup>:

*Baltimore*: “We had a storm of snow and sleet this morning; it is now raining heavily.”

*Boston*: “Snow fell in this city steadily from eight to twelve o’clock, today, when it was succeeded by a heavy rainstorm, a thick fog, and indications of a general thaw.”

*Philadelphia*: “An inch of snow fell here last night; this morning it has changed to rain, freezing as it falls... The rain extends in every direction far as heard from the south, and as far west as Louisville.”

*Washington, DC*: “Early this morning the weather here was freezing cold, but it is warmer now, and rain is falling. There is much ice, and the streets are in a dangerous condition.”

On February 8, the milder weather that had set in continued in New York City. “Yesterday [February 8] was as mild as the previous day, and the prospect now is—if the weather ever affords a prospect—that warm weather will continue until the snow has entirely ‘run into the ground,’” *The New York Daily Times* speculated.<sup>171</sup>

The benign weather rolled on in the East. Days were mild, though nights saw readings drop below freezing. “The weather is marvelously unsteady. At noon... it was mild and Spring-like. The thaw was fast progressing and rivers were pouring into sewers at every corner grating, or into the cellars in the sewerless streets. At dark all this was stopped. The water froze, the slush hardened, and the fine black snow-dust flew in the strong N.W. by W. wind, like fresh snowflakes in a storm. Indeed, during the afternoon there was quite a fall of snow, though the sun afterwards came out and melted it,” *The New York Daily Times* observed of the weather on February 12.<sup>172</sup> Nevertheless, the warmth was not of a degree that it would melt the vast amounts of snow and ice that had accumulated during the frigid period that began in late December. “There are no very distinct indications that we shall be rid of our present great incumbrance in the streets till March or even April,” the article added.<sup>173</sup>

While New York City was thawing gently, western New York State was hammered by a vicious snowstorm that was described as having been one of “the most severe on record.”<sup>174</sup>

The preceding cold period had been so exceptional and persistent that sport and even a touch of romance painted daily life. The February 16, 1856 issue of *The New York Daily Times* noted that the “Peconie [the Peconie Bay] has been frozen over so hard that sleighs have crossed from Town Harbor to Jessup’s on the south side [of Long Island]—a six miles’ ride. At Greenport, the youths fitted ice-boats, and had rare sport with them. These boats are triangular in shape, the blunt end or bows resting on two smooth parallel runners, and the stern resting on a single grooved runner, which being worked by a tiller operated as a rudder. A latteen sail was rigged to a mast, and then before the wind they would sail down at a rate that made one hold his breath to think of. Nor so alone. But a skillful sailor would beat with them against the wind at a good rate of speed. Filling one of those ice boats with merry girls on a moonlight night, when the wind blew strong, there were such jolly times as we read of, but don’t see every month.”<sup>175</sup> Meanwhile, at the east end of Long Island, the Long Island Sound remained “one mass of broken ice” with “no water... visible for miles along its shores.”<sup>176</sup>

February 16-17 saw winter renew its assault on the East, as heavy snow accompanied by high winds blanketed the Northeastern United States. In the wake of the storm, strong winds continued to buffet the region for an additional day. Nevertheless, up in Halifax only “light snow” with “mild” readings was reported.<sup>177</sup>

At Boston, the report for February 17 was, “It has been snowing here nearly all day and blowing a gale. All the railroads are badly incommoded by the drifts.”<sup>178</sup> On account of the snow that covered the railroad tracks, the Boston to New York mail train was canceled that day.<sup>179</sup>

For interior New England, this storm was even worse than the January blizzard where the worst-effects were experienced in coastal regions. “The storm of Saturday night [February 16], and the blow ever since, have thrown the trains on all the roads in this

vicinity into the utmost confusion. No storm during the Winter has so paralyzed railroad travel,” was the report from Springfield, Massachusetts.<sup>180</sup>

Around Boston, railroad travel remained “greatly retarded in all directions by the drifting of the snow.”<sup>181</sup>

In New York State, along the Hudson River Railroad, news accounts were similar: “The violent wind of Monday night [February 18] so filled up the track of this Road as materially to impede the running of trains the following day.”<sup>182</sup>

Conditions on the streets of New York City were not much better. “Twas a terrible time...for poor horses, their drivers, and those who were compelled to take passage in the slow-moving and jostling omnibus. Broadway was blocked at intervals, the entire day,” *The New York Daily Times* reported.<sup>183</sup>

The high winds also drove much of the loose ice out of the Hudson River out to sea. It was reported, “The high winds that have prevailed since Sunday [February 17] last, have had the effect to drive much of the loose ice in the North [Hudson] River and Bay through the Narrows and out to sea.”<sup>184</sup> Nevertheless, north of New York City, the Hudson River remained solidly frozen with *The New York Daily Times* observing, “The Hudson River is entirely covered with solid ice as far down as Tarrytown, and more than half of the surface below that point is in a similar condition. The various ferries are crossed on the ice with sleights under the heaviest loads.”<sup>185</sup>

On February 19, 1856, *The New York Daily Times* carried a report from the *Albany Register* that described the severe winter storms that had been affecting western New York State. The report stated, “The magnitude and extent of the recent severe snow storms in the Western portion of the State are but little known here... It is claimed by writers that such storms are blessings. If so, the disguise in which these have been clothed is yet to be removed.”<sup>186</sup>

With milder weather in place at St. Louis, efforts were initiated to blast the ice in the harbor to begin breaking it up.<sup>187</sup> Further north up the Mississippi River there was reported “no movement of the ice...”<sup>188</sup>

Noticeably milder weather also took hold in the East. On February 22, the weather in Boston was described as “fine and Spring-like.”<sup>189</sup> The mild weather continued for several days afterward. By February 26, there was speculation that navigation in the East River could resume within another day or two if the moderation continued.<sup>190</sup>

The moderation did not continue. Somewhat colder air returned. On February 27, Philadelphia, Baltimore, and Washington, DC all saw snow, though readings were described as “quite mild.”<sup>191</sup>

March came in like a lion in New York City. *The New York Daily Times* reported, “It began to snow Saturday noon, March 1, and continued till past midnight, the wind through the night blowing hard from the northwest. Several inches of snow fell.”<sup>192</sup>

March 2 saw milder temperatures “so that all day the thaw went on, the gutters swelled with their dirty streams, and in some parts of the City cellars were flooded...”<sup>193</sup>

On March 4, western New York was again slammed by a fierce snowstorm. “[W]e were visited with the most severe snowstorm that we have had this season,” was the report from Buffalo, “The snow has badly drifted, and all the Railroads leading into the City are blockaded.”<sup>194</sup>

On March 8, a powerful cold front roared across the eastern United States. At 6 p.m., the temperature at New York City fell below 32° and plunged to 14° by midnight.<sup>195</sup>

By March 9, one of the most severe Arctic air masses to visit the East in March covered the region with the temperature starting at a low of 8° in New York City.<sup>196</sup> Some snow fell across parts of the region including Philadelphia and Washington, DC.<sup>197</sup> An inch of snow also fell at Louisville.<sup>198</sup> Parts of southern Canada, including Montreal saw sufficient snowfall to interfere with railway travel with the March 10 report from Montreal indicating, “Railway travel is much interrupted.”<sup>199</sup>

March 10, 1856 proved to be one of the coldest days ever recorded in the eastern United States during March. In several cities, subzero cold was recorded and some of those temperatures would demolish existing all-time monthly low temperatures.

Reports for March 10 included<sup>200</sup>:

*Albany*: “The thermometer in this city ranged from zero to 7° below zero, this morning.”

*Boston*: “At sunrise this morning, the thermometer in this city stood at zero.”

*Buffalo*: “The thermometer this morning stood at 15° below zero...”

*Cleveland*: A low of -10° was recorded.

*Louisville*: “The weather here is very cold.”

*Montreal*: “The mercury stood at 12° below zero in this city this morning.”

*New York City*: 4° at 7 am.

*Philadelphia*: “The mercury, at daylight this morning, had fallen to zero.”

*White River Junction, Vermont*: “[T]he mercury was 26° below zero.”

In New York City, the thermometer dipped to 11° on March 11.<sup>201</sup> Persistent “high winds” accompanied the intense cold during the March 8-11 period with the conditions for March 11 described as, “The weather was a little highfalutin’ ...—the wind high, the temperature low, the thawing quite insignificant, though at midday it was sufficient to make the crossings dirty.”<sup>202</sup>

*The New York Daily Times* was particularly impressed by the impressive cold that had thus far characterized the month. The newspaper observed<sup>203</sup>:

*It is not always March, and happily for us, every March is not like the one we are now tasting the signs of. There may have been as cold weather before in this Spring month, but we doubt it. If, however, there has never before been so cold a March, it may be some consolation to those who have shivered through the past two months, to know that in the good old times they had a taste of Winter such as we have not imagined in these wild and degenerate days. A correspondent in Kentucky has very obligingly sent us the following chronicle of the most remarkable spells of bitter weather known in the old world:*

*In the year 301, the cold was so intense in Europe, that the Black Sea was frozen entirely over.*

*In 401, the Pontus Sea, and the sea between Constantinople [now Istanbul] and Scutari in Turkey, were entirely frozen over.*

*The Danube was frozen over in 462, so that a whole army crossed on the ice.*

*The black Sea again frozen over in 765...*

*Carriages crossed the Adriatic Sea, or Gulf of Venice, in 859, and in 860 the cold was so intense that cattle froze to death in their stalls. The Mediterranean Sea was so thickly frozen over, that it was passable for carriages and horses, and merchandise was transported across it on the ice.*

*1133. This year the River Po, in Italy, was frozen from Cremona to the sea; wine burst the casks containing it, and the trees split with a loud report.*

*1216. The River Po was frozen to a depth of sixteen feet.*

*1234. The Mediterranean was again frozen over...*

*1292. The Rhine was frozen over, and the snow is represented as being of an “enormous depth.”*

*1323. The Baltic Sea was frozen over so as to be passable for six weeks.*

*1344. All the rivers in Italy were frozen over.*

1349, 1492 [likely 1292] and 1408. *The Baltic Sea was frozen over in each of these years.*

1384. *The Rhine and Gulf of Venice were frozen over.*

1423, 1426 and 1459. *In each of these years the traveling from Lubec to Prussia was performed on the ice.*

1620. *The sea between Constantinople and Iskodar was passable on the ice.*

1670. *The cold was intense throughout Europe.*

1681. *This year the cold was so severe as to split whole forests of oak trees...*

1692. *Wolves came into Vienna, and attacked men and women, owing to the intense cold and hunger...*

1776. *This year the Danube was frozen over five feet thick below Vienna...*

On account of the severe cold that had precluded the melting and removal of snow, the railroads around Montreal remained “blocked up by snow.”<sup>204</sup>

At New York City, March 17, 1856 was “clear as a bell—warm, genial, soft, and good to give a body a cold.”<sup>205</sup> A day later, another winter storm moved up the Eastern Seaboard, likely hugging the coast, during the March 18-19 period, with Philadelphia picking up a half-foot of snow.<sup>206</sup>

Reports concerning this storm included<sup>207</sup>:

*Albany:* “Snow has fallen steadily all day [March 19].”

*Baltimore:* “It has been snowing here all night [March 18]. The weather is mild, and there is some appearance of clearing off.”

*Boston:* “Snow has fallen here densely since 3 o’clock this afternoon [March 19], but melted almost as soon as it touched the ground. This evening there are indications of rain.

*Philadelphia:* “Snow fell here last night [March 18] to the depth of six inches. It is now thawing.”

*Richmond:* “The weather here is very mild. A few flakes of snow fell yesterday [March 18].”

Meanwhile, just to the south of Wheeling, Virginia, the ice “gave way...but gorged.”<sup>208</sup>

In the wake of the storm, the weather turned unseasonably mild.

A reporter for *The New York Daily Times* described the weather in New York City on March 20 as follows<sup>209</sup>:

*[T]he sunshine lay in blocks of gold in our streets. Avaricious Winter, whose unsympathetic heart no other sight could melt, opened his arms to receive the treasure, and sunk beneath the delightful burden which he was unable to carry. All New York, when it saw the old man dying with his wealth beside him, wept with simulated sympathy—greedy after his riches—and the black tears of hypocritical grief rolled down the cheeks of Broadway into the gutters, and flowed copiously through the by-streets, till they mingled with the Hudson. Coquettish March—one moment scowling and scolding, and blowing up every body, the next, smiling and quiet—sits braiding her flaxen hair in the sunlight, and twisting its golden threads into love-knots and beau-catchers. Her warm glances have melted the frozen heart of Winter, and her wanton looks have dissipated his eldest sons, Ice and Snow. Today she throws them into the mud and soils their white garments without apologizing to their washerwoman—tomorrow their hearts will grow cold with such ill-treatment, and when the night comes they will encase themselves in an adamant armor of congealed mud, and defy her gold tipped arrows. And so for a fortnight [two weeks] to come, her amours with them will be alternately smiles and tears, cold looks and tender sighs, and fierce gusts of passion, till gentle April steps in, “all in tear,” and the brothers, vanquished (as all men finally are) by woman’s favorite and irresistible weapon, (weep-on) sink into the earth overcome in the unequal combat, and leave Spring to fasten her green banners on the trees in token of the victory. Then the grass will spring up, and the birds will sing...*

On March 21, “bad weather” was reported at Savannah.<sup>210</sup>

On March 24, New York City saw a new storm bring rain and snow to the region. The storm was described as bringing “mingled snow and rain...all squally and squashy, and intolerably wet and uncomfortable...”<sup>211</sup>

At Augusta, Georgia “a cold northwest wind set in” on March 27<sup>th</sup> “and continued for about 40 hours.”<sup>212</sup>

March 28 saw winter bring another gasp of snow and cold to New York City. “The March weather that our citizens failed to enjoy...was a compound of all that was disagreeable during the hard days of the long severe Winter. It snowed, at times, though not enough to signify [accumulate]. It froze hard. The wind blew strong and cutting, rattling windows and blinds, bursting open doors, and rendering every individual as uncomfortable as, in the nature of things, he could be made,” *The New York Daily Times* reported.<sup>213</sup>

Spring had been unusually cold even in the Deep South. The March 28 edition of the *Atlanta Republican* observed that it had “never known a Spring when vegetation was so backward. Scarcely a peach bloom is to be seen, and the forest now looks like bleak Winter.”<sup>214</sup>

On March 31, an unseasonable late-season snowstorm hit parts of the lower Middle Atlantic and southern United States. “A severe snowstorm prevails here today,” came the report from Norfolk.<sup>215</sup>

A rainstorm drenched parts of the Mid-Atlantic and Northeastern region on April 2-3. At Baltimore, it was reported that “Rain has been falling here since sundown [April 2], quite heavily.”<sup>216</sup> On April 3, rain fell at Concord, New Hampshire and as far northeast as St. John, New Brunswick.<sup>217</sup> Temperatures were unseasonably mild.<sup>218</sup> Nevertheless, signs of the retreating winter still abounded in some areas.

Select reports for April 3 included<sup>219</sup>:

*Bangor*: “The river will not, apparently, be open in two weeks. The ice is two feet thick, and teaming [sledding] is good to Frankfort.”

*St. John, New Brunswick*: “The snow is very deep, and the roads almost impassable. The river will not open for two or three weeks yet.”

Following the rainstorm, the mild weather continued. On April 5, the report from Montreal was, “The weather here is mild... The ice still holds on in the river, but crossing over on it is now rather dangerous.”<sup>220</sup>

With a continuation of warm weather, navigation resumed along the St. Lawrence River at Quebec City on April 7 and on April 8, the passageway from Trois Rivieres to Quebec City was open, and the ice opposite Montreal was “giving indications of soon breaking up.”<sup>221</sup>

On April 10, fears that the river at Bangor would not be open for at least two weeks proved unfounded. The April 11, 1856 issue of *The New York Daily Times* reported of the situation at Bangor, “The warm weather of the last three days has rendered the ice very thin.”<sup>222</sup>

April 12 saw a widespread outbreak of severe thunderstorms, damaging winds, and tornadoes across the Ohio Valley into parts of the Mid-Atlantic region.

At Chicago, “Saturday [April 12] forenoon, the weather was subjected to a sudden change. The wind came with an icy puff from the north, and rapidly increased in force until by afternoon it had become one of the most bitter and violent gales which ever visit us during the navigable season. ... After midnight the wind died away...”<sup>223</sup>

Around Cleveland, there was significant damage. “The storm...did a great deal of damage along the line of the Cleveland and Pittsburgh Railroad. A church and fifteen houses were blown down at Alliance... A large number of trees were blown across the track between Salem and Damascus,” *The New York Daily Times* reported.<sup>224</sup>

A long-lived tornado was responsible for a large part of the damage. The April 13, 1856 edition of the *Alliance Ledger* stated<sup>225</sup>:

*Last evening, about 6 ½ o'clock, a tremendous hurricane passed over Alliance, the like of which has never before been witnessed in this region, and never, we fervently hope may be again.*

*The storm, we should think, lasted about three minutes during which time the air was filled with the various fragments of shattered buildings and other missiles blowing about with terrific violence.*

*As soon as the gale had spent its force, although the rain poured down in torrents, large numbers of citizens left their places of retreat to ascertain the extent of the damages, and as dismantled buildings were seen in every direction...*

*At Salem, we hear, that the storm raged with terrific violence. A gentleman who came from there on Saturday evening's express train, informed us that the station house was partly unroofed. A large three-story brick, belonging to and occupied by Mr. Pigeon, was entirely demolished...*

*At Rochester, Bayard, Winchester and Moultrie, the storm prevailed with unexampled fury, sweeping away numerous barns and houses, uprooting trees, &c...*

*At Damascus, it is said the Quaker meeting house was destroyed, along with other buildings...*

*The village of New Chambersburgh, Columbiana County, is reported a mass of ruins...*

*At Old Enon, Penn., damages reported heavy...*

During the severe weather outbreak, a tornado also hit Philadelphia and its nearby suburbs during the evening of April 12. *The New York Daily Times* reported, "The damage done by the tornado in Philadelphia...has been very extensive."<sup>226</sup> The newspaper also disclosed of the situation around Philadelphia, "Accounts from towns in the vicinity of this city give additional information of the ravages of the tornado... An innumerable number of dwellings and barns have been unroofed in every direction. A train of loaded freight cars, standing near the depot of the Pennsylvania Railroad, to West Philadelphia, was blown from the track. Ten loaded cars on the Reading road [Railroad] were driven a hundred yards from the place where they were left, and five of the number were blown off the track."<sup>227</sup>

No tornadoes occurred at Boston, but the city was also hit by high winds and heavy rain. "We had a heavy rain and severe gale last night [April 12]. It is clear and calm today," was the report from that city.<sup>228</sup>

Just over a week after the memorable severe weather episode, a strong, slow-moving nor'easter raked the Middle Atlantic and New England states during the April 20-21 period.

Reports for April 20 were as follows<sup>229</sup>:

*Albany*: “We have had a severe storm of snow and sleet here all day—the wind strong from the northwest. The snow now covers the ground to a depth of three inches on average. At 7 ½ o’clock this evening the thermometer here indicated 30 degrees above zero.”

*Baltimore*: “Cold, drizzly rain.”

*Boston*: “Heavy rain all day, with northeast gale.”

*Rutland, Vermont*: “It is snowing here today quite briskly.”

On April 21, the weather was particularly stormy at New York City. *The New York Daily Times* reported, “We had a heavy gale..., the wind blowing all day from the northeast, and the rain seldom intermitting. Sunday [April 20] we received the admonition [April 21], but yesterday the blow came. Such raining, such blowing and such storming we have not known, for how long a time our memory cannot determine... The river [East River] was in a jolly foam. White caps crowned every yard of sea and no craft, that was not obliged to, trusted itself a moment away from its anchorage or its securer moorings.”<sup>230</sup>

Reports from other parts of the region for April 21 included<sup>231</sup>:

*Albany*: “The weather is cold, the river is rising, and there are indications of a freshet [flood].”

*Baltimore*: “It has been raining very heavily here all day.”

*Boston*: “The sever northeast gale and heavy rain continues...”

*Maine*: “Dispatches from Eastport, Calais, Bangor and Portland report the storm as very severe, blowing from the northeast, with heavy rain.”

*Washington, DC*: “It has been raining heavily here all day.”

At Bridgeport, Connecticut, the storm was described as having been “very severe. It lasted for two days, heavy rain, sometimes changing to snow, falling without intermission. The wind blew a perfect hurricane.”<sup>232</sup>

Parts of northwestern Virginia saw snow. *The New York Daily Times* reported, “Snow fell in some parts of the Valley of Virginia...to the depth of seven or eight inches.”<sup>233</sup>

April 22 saw flooding around Albany, with the docks and pier being “inundated.”<sup>234</sup> A day later, it was reported from Albany, “The freshet is subsiding fast—the weather fine and warm.”<sup>235</sup>

By April 28, Lake Champlain had become “almost free from ice” and only “a little ice” remained at Rouse’s Point, New York.<sup>236</sup>

On May 7, the Rochester *American* reported, “The present is a backward Spring, owing in part to the large bodies of snow and ice north of us, and the prevalence of northerly winds.”<sup>237</sup>

May 23-24 saw temperatures rocket in the eastern United States. On May 24, the mercury topped out at 94° and 95° on thermometers in New York City.<sup>238</sup> A strong cold front raced across the region during the evening of May 24, bringing a discontinuous line of severe thunderstorms from Boston to south of Petersburg, Virginia.<sup>239</sup> May 25 dawned with temperatures in the upper 40s in New York City.<sup>240</sup>

With a 48-degree drop in the temperature in New York City over a less than 24-hour period, *The New York Daily Times* observed of the dramatic change in weather<sup>241</sup>:

*Saturday [May 24] was a melting day. Only those who were on the Bay or in the tree-y suburbs found it tolerable. Throughout the evening the strong breeze seemed as if it had been dipped in oil and warmed at the mouth of a furnace. Those only slept comfortably who kicked all the blankets off and had a window open. But Sunday morning dawned on a raw, gusty day, which was felt all the more from the fact that until noon the sun was out...*

Less than a week after the fading winter wrested control of the seasons from summer’s early bid to gain the upper-hand, Winter 1855-56 played its final act. May 30-31 saw snow hit parts of Pennsylvania to northern New England. On May 30, it was reported from Pittsburgh, “Quite a heavy snowstorm is now (1 o’clock P.M.) prevailing in this locality.”<sup>242</sup> On May 31, *The New York Daily Times* reported, “At Bangor, Waterville and Danville, this morning, it was snowing, and the weather was very cold.”<sup>243</sup>

Aided in part by this very late-season snowfall, some piles of snow lingered well into June in a few isolated locations in New York State. The June 14, 1856 issue of *The Brooklyn Daily Eagle* revealed, “There is a snow drift still remaining in Georgetown, Madison County, New York, which upon being measured a few days since, was ascertained to be five rods long, one and a half rods wide and five feet deep—quite a wonder, considering the lateness of the season, mildness of the climate, and flatness of the country.”<sup>244</sup>

Finally, June 20-22 saw Winter 1855-56 vanquished by a fiery heat wave that sent temperatures soaring into the upper 90s to 100° across the eastern United States.<sup>245</sup> The month ended with additional high heat.<sup>246</sup>

By the time summer had finally prevailed, Winter 1855-56 had long distinguished itself as the coldest winter of the 1850s, and one of the most severe winters ever seen in the eastern United States.

## APPENDIX

### **Winter 1855-56's Cold vs. Modern Daily Record Temperatures<sup>247</sup>:**

*January 7, 1856:*

Boston: -17 [Jamaica Plain]; Modern record: -2, 1896

*January 8, 1856:*

Chicago: -17; Modern record: -11, 1942

Newark: -8; Modern record: 3, 1970

Philadelphia: -6; Modern record: 2, 1970

*January 9, 1856:*

Boston: -2; Modern record: -4, 1968

Cincinnati: -10; Modern record: -6, 1986

Cleveland: -17; Modern record: -13, 1875

Hartford: -21; Modern record: -9, 1968

New York City: -5; Modern record: -1, 1968

Philadelphia: -2; Modern record: 1, 1970

Pittsburgh: -12; Modern record: -10, 1875

*January 10, 1856:*

Chicago: -19; Modern record: -26, 1982

Frankfort, Kentucky: -16; Modern record for nearby Lexington, KY: -11, 1982

New York City: -3; Modern record: -3, 1875

*February 3, 1856:*

Lawrence, Kansas: -26; Modern record for nearby Topeka, KS: -9, 1996

*February 4, 1856:*

Chicago: -20; Modern record: -14, 1996

Cincinnati: -18; Modern record: -11, 1996

Independence, Missouri: -22; Modern record for nearby Kansas City, MO: -1, 1982

Lawrence, Kansas: -30; Modern record for nearby Topeka, KS: -13, 1905

Rochester, New York: -17; Modern record: -8, 1970

*March 9, 1856:*

New York City: 8; Modern record: 11, 1996

*March 10, 1856:*

Boston: 0; Modern record: 6, 1984

Buffalo: -15; Modern record: 5, 1984

Cleveland: -10; Modern record: 5, 1984

New York City: 4; Modern record: 12, 1929

Philadelphia: 0; Modern record: 7, 1984

*March 11, 1856:*

New York City: 11; Modern record: 14, 1960

**Monthly Mean Temperatures and Extremes for New Haven<sup>248</sup>:**

December 1855: 33.6; Highest: 56; Lowest: 9

January 1856: 19.1; Highest: 38; Lowest: -8

February 1856: 24.5; Highest: 45; Lowest: 0

March 1856: 30.8; Highest: 46; Lowest 3

December 1855-March 1856 Mean Temperature: 27.0 (exceeded only by 1783-84, 1816-17, 1835-36, and 1836-37 during the 1780-81 through 1864-65 period).

**Monthly Mean Temperatures for New York City<sup>249</sup>:**

November 1855: 44.6

December 1855: 34.7

January 1856: 21.9

February 1856: 23.9

March 1856: 30.8

April 1856: 49.9

Temperatures are from Fort Columbus Marine hospital on Governors Island.

**North Atlantic Oscillation (NAO)<sup>250</sup>:**

September 1855: -1.42

October 1855: +0.56

November 1855: -1.65

December 1855: -0.32

January 1856: -1.03

February 1856: -0.59

March 1856: -2.85

April 1856: -0.09

May 1856: -1.43

June 1856: +1.90

## ENDNOTES

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- <sup>1</sup> “Frost in August,” *The Brooklyn Daily Eagle*, September 6, 1855.
- <sup>2</sup> “The Weather in Boston,” *The New York Daily Times*, September 10, 1855 and “Massachusetts Politics—Relief for the Yellow Fever Sufferers—Weather, &c.,” *The New York Daily Times*, September 13, 1855.
- <sup>3</sup> “Weather at Boston—Marine Disaster—The Ship Cohota on Toddy Rocks,” *The New York Daily Times*, September 19, 1855.
- <sup>4</sup> “Weather at Boston—Marine Disaster—The Ship Cohota on Toddy Rocks,” *The New York Daily Times*, September 19, 1855.
- <sup>5</sup> “Weather at Boston—Marine Disaster—The Ship Cohota on Toddy Rocks,” *The New York Daily Times*, September 19, 1855.
- <sup>6</sup> “Frost,” *The New York Daily Times*, September 22, 1855.
- <sup>7</sup> “Great Rain Storm at Baltimore—Destruction of Property,” *The New York Daily Times*, October 5, 1855.
- <sup>8</sup> “Great Rain Storm at Baltimore—Destruction of Property,” *The New York Daily Times*, October 5, 1855.
- <sup>9</sup> “Great Rain Storm at Baltimore—Destruction of Property,” *The New York Daily Times*, October 5, 1855.
- <sup>10</sup> “Freshet in the Schuylkill River,” *The New York Daily Times*, October 2, 1855.
- <sup>11</sup> “Snow Storm,” *The Brooklyn Daily Eagle*, October 12, 1855.
- <sup>12</sup> “Frost in South Carolina,” *The New York Daily Times*, October 10, 1855.
- <sup>13</sup> “Snow,” *The Brooklyn Daily Eagle*, October 15, 1855.
- <sup>14</sup> “Another Terrible Storm on Lake Michigan,” *The New York Daily Times*, October 26, 1855.
- <sup>15</sup> “Weather in New Orleans,” *The New York Daily Times*, October 25, 1855.
- <sup>16</sup> “Snow at the South-West,” *The New York Daily Times*, October 25, 1855.
- <sup>17</sup> “The Massachusetts Prohibitory Liquor Law—Snow Storm, &c.,” *The New York Daily Times*, October 30, 1855.
- <sup>18</sup> “News from the Plains,” *The New York Daily Times*, February 12, 1856.
- <sup>19</sup> “Terrific Storm on Lake Michigan—Two Propellers Wrecked—Numerous Lives Lost,” *The New York Daily Times*, November 12, 1855.
- <sup>20</sup> “Severe Storm on Lake Michigan,” *The New York Daily Times*, November 20, 1855.
- <sup>21</sup> “First Snow Storm of the Season,” *The New York Daily Times*, November 19, 1855.
- <sup>22</sup> “Long Island,” *The New York Daily Times*, November 19, 1855.

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- <sup>23</sup> “Snow Storm in Boston,” *The New York Daily Times*, November 19, 1855.
- <sup>24</sup> “Snow Storm in Boston,” *The New York Daily Times*, November 19, 1855.
- <sup>25</sup> “Weather Reports,” *The New York Daily Times*, November 20, 1855.
- <sup>26</sup> “The Weather Eastward,” *The New York Daily Times*, November 23, 1855.
- <sup>27</sup> “The Weather Eastward,” *The New York Daily Times*, November 23, 1855.
- <sup>28</sup> “Canal Navigation,” *The New York Daily Times*, November 29, 1855.
- <sup>29</sup> “Weather at Albany,” *The New York Daily Times*, November 30, 1855.
- <sup>30</sup> “Thanksgiving in Boston,” *The New York Daily Times*, November 30, 1855.
- <sup>31</sup> “The Weather and the Canals,” *The New York Daily Times*, December 1, 1855.
- <sup>32</sup> “The Weather and the Canals,” *The New York Daily Times*, December 1, 1855.
- <sup>33</sup> “Canal Navigation, Weather, &c.,” *The New York Daily Times*, December 5, 1855.
- <sup>34</sup> “Navigation at the Canal—Weather, &c., &c.,” *The New York Daily Times*, December 7, 1855.
- <sup>35</sup> “Canal Navigation,” *The New York Daily Times*, December 10, 1855.
- <sup>36</sup> “Canal Navigation,” *The New York Daily Times*, December 10, 1855.
- <sup>37</sup> “The Storm in Jersey City,” *The New York Daily Times*, December 11, 1855.
- <sup>38</sup> “The Storm in Jersey City,” *The New York Daily Times*, December 11, 1855.
- <sup>39</sup> “The Storm in Jersey City,” *The New York Daily Times*, December 11, 1855.
- <sup>40</sup> “The Weather in Boston,” *The New York Daily Times*, December 11, 1855.
- <sup>41</sup> “Disaster to a Lake Propeller—The Weather at Buffalo,” *The New York Daily Times*, December 11, 1855.
- <sup>42</sup> “Canal Navigation Closed,” *The New York Daily Times*, December 12, 1855.
- <sup>43</sup> “The Snow Storm,” *The New York Daily Times*, December 14, 1855.
- <sup>44</sup> “Death of Judge Jackson, of Massachusetts—Snow Storm,” *The New York Daily Times*, December 14, 1855.
- <sup>45</sup> “Madame La Grange in Philadelphia—Weather, &c.,” *The New York Daily Times*, December 24, 1855.
- <sup>46</sup> “Weather in Boston,” *The New York Daily Times*, December 24, 1855.
- <sup>47</sup> “Weather at Buffalo,” *The New York Daily Times*, December 25, 1855.
- <sup>48</sup> “Weather in Philadelphia,” *The New York Daily Times*, December 26, 1855.
- <sup>49</sup> “Christmas,” *The New York Daily Times*, December 26, 1855.

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- <sup>50</sup> “Weather in Boston,” *The New York Daily Times*, December 26, 1855.
- <sup>51</sup> “Snow Storm in the East,” *The New York Daily Times*, December 31, 1855.
- <sup>52</sup> “Good Sleighing,” *The New York Daily Times*, January 2, 1856.
- <sup>53</sup> “Snow Storm in the East,” *The New York Daily Times*, December 31, 1855.
- <sup>54</sup> “Long Island,” *The New York Daily Times*, January 2, 1856.
- <sup>55</sup> “Ice in the Slips,” *The New York Daily Times*, January 2, 1856.
- <sup>56</sup> “New Year’s Day,” *The New York Daily Times*, January 2, 1856.
- <sup>57</sup> “The Southern Mail—Weather in Alabama—Finances of Maryland,” *The New York Daily Times*, January 3, 1856.
- <sup>58</sup> “The Weather,” *The New York Daily Times*, January 3, 1856.
- <sup>59</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>60</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>61</sup> “Heavy Rains and Fears of Freshets in the South,” *The New York Daily Times*, January 4, 1856.
- <sup>62</sup> “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>63</sup> “The Great Snow Storm—Circular from the Patent Office,” *The New York Daily Times*, January 28, 1856.
- <sup>64</sup> “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>65</sup> “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>66</sup> “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>67</sup> “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>68</sup> “The Storm South,” *The New York Daily Times*, January 8, 1856.
- <sup>69</sup> “The Storm South,” *The New York Daily Times*, January 8, 1856.
- <sup>70</sup> “The Storm Southward,” *The New York Daily Times*, January 7, 1856.
- <sup>71</sup> “The Storm South,” *The New York Daily Times*, January 8, 1856.
- <sup>72</sup> “The Storm South,” *The New York Daily Times*, January 8, 1856.
- <sup>73</sup> “The Storm South,” *The New York Daily Times*, January 8, 1856.
- <sup>74</sup> “The Storm South,” *The New York Daily Times*, January 8, 1856.
- <sup>75</sup> “The Storm,” *The New York Daily Times*, January 7, 1856.

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- <sup>76</sup> “The Storm and the Railroads,” *The New York Daily Times*, January 9, 1856.
- <sup>77</sup> <http://www.collegiatechurch.org/history.html> and <http://www.collegiatechurch.org/ministers.html>.
- <sup>78</sup> Hopper Striker Mott, *The New York of Yesterday: A Descriptive Narrative of Old Bloomingdale*, New York: G. P. Putnam’s Sons, 1908, p.438.
- <sup>79</sup> “The Storm,” *The New York Daily Times*, January 7, 1856.
- <sup>80</sup> “The Storm East,” *The New York Daily Times*, January 8, 1856.
- <sup>81</sup> “The Storm East,” *The New York Daily Times*, January 8, 1856.
- <sup>82</sup> “The Storm East,” *The New York Daily Times*, January 8, 1856.
- <sup>83</sup> “The Storm East,” *The New York Daily Times*, January 8, 1856.
- <sup>84</sup> “The Storm East,” *The New York Daily Times*, January 8, 1856.
- <sup>85</sup> “The Storm East,” *The New York Daily Times*, January 8, 1856.
- <sup>86</sup> “The Storm East,” *The New York Daily Times*, January 8, 1856.
- <sup>87</sup> “The Storm at Washington—The Mails,” *The New York Daily Times*, January 7, 1856.
- <sup>88</sup> “The Snow in Virginia,” *The Brooklyn Daily Eagle*, January 14, 1856.
- <sup>89</sup> “Non-Arrival of the Canada—The Snow-Storm at Halifax,” *The New York Daily Times*, January 7, 1856.
- <sup>90</sup> “The Snow,” *The New York Daily Times*, January 8, 1856.
- <sup>91</sup> “Telegraphic Reports,” *The New York Daily Times*, January 8, 1856.
- <sup>92</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>93</sup> “Telegraphic Reports,” *The New York Daily Times*, January 8, 1856.
- <sup>94</sup> “The Snow in Virginia,” *The Brooklyn Daily Eagle*, January 14, 1856.
- <sup>95</sup> “New York City,” *The New York Daily Times*, January 9, 1856.
- <sup>96</sup> “New York City,” *The New York Daily Times*, January 9, 1856.
- <sup>97</sup> “The Weather, Mails, &c.,” *The New York Daily Times*, January 9, 1856.
- <sup>98</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>99</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>100</sup> “The Weather, Mails, &c.,” *The New York Daily Times*, January 9, 1856.
- <sup>101</sup> “Buffalo...It is still snowing here, and the roads are much obstructed... The thermometer here is 3° below zero” in “The Weather and the Mails,” *The New York Daily Times*, January 10, 1856.
- <sup>102</sup> “The Weather and the Mails,” *The New York Daily Times*, January 10, 1856.

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- <sup>103</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>104</sup> The report from North East, New York in Dutchess County was as follows: “The mercury here this morning at sunrise stood at 22° below zero. We have about eight or ten inches of snow, and the sledding is very fine indeed,” in “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>105</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>106</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>107</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>108</sup> “The Cold Term,” *The New York Daily Times*, January 10, 1856.
- <sup>109</sup> “Cold Weather,” *The Brooklyn Daily Eagle*, January 10, 1856.
- <sup>110</sup> “The Frozen Term,” *The New York Daily Times*, January 11, 1856.
- <sup>111</sup> “The Frozen Term,” *The New York Daily Times*, January 11, 1856.
- <sup>112</sup> “The Frozen Term,” *The New York Daily Times*, January 11, 1856.
- <sup>113</sup> Source: The Inflation Calculator (<http://www.westegg.com/inflation/infl.cgi>) and the 2003 consumer price index.
- <sup>114</sup> “The Frozen Term,” *The New York Daily Times*, January 11, 1856.
- <sup>115</sup> “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>116</sup> “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>117</sup> “Weather Reports,” *The New York Daily Times*, January 12, 1856.
- <sup>118</sup> “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>119</sup> “The Weather and the Mails,” *The New York Daily Times*, January 11, 1856.
- <sup>120</sup> “The Weather and All That,” *The New York Daily Times*, January 12, 1856.
- <sup>121</sup> “The Weather and All That,” *The New York Daily Times*, January 12, 1856.
- <sup>122</sup> “Weather Reports,” *The New York Daily Times*, January 12, 1856.
- <sup>123</sup> “Weather Reports,” *The New York Daily Times*, January 12, 1856.
- <sup>124</sup> “Weather at the South,” *The New York Daily Times*, January 15, 1856.
- <sup>125</sup> “The Southern Mail—The Weather, &c.,” *The New York Daily Times*, January 14, 1856.
- <sup>126</sup> “The Slosy Term,” *The New York Daily Times*, January 14, 1856.
- <sup>127</sup> “The Slosy Term,” *The New York Daily Times*, January 14, 1856.
- <sup>128</sup> “Three Feet of Snow,” *The New York Daily Times*, January 15, 1856.

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- <sup>129</sup> “The Southern Mail—The Weather, &c.,” *The New York Daily Times*, January 14, 1856.
- <sup>130</sup> “The Sound Steamers, &c.,” *The New York Daily Times*, January 15, 1856.
- <sup>131</sup> “The Sound Steamers, &c.,” *The New York Daily Times*, January 15, 1856.
- <sup>132</sup> “At the East,” *The New York Daily Times*, January 16, 1856.
- <sup>133</sup> “The Weather in the East—The Case of Messrs Coburn and Dalton,” *The New York Daily Times*, January 15, 1856.
- <sup>134</sup> “Snow Storms in the West,” *The New York Daily Times*, January 15, 1856.
- <sup>135</sup> “Snow Storms in the West,” *The New York Daily Times*, January 15, 1856.
- <sup>136</sup> “Ice on the Ohio,” *The New York Daily Times*, January 18, 1856.
- <sup>137</sup> “Snow Storms at the South—Southern Mail,” *The New York Daily Times*, January 21, 1856.
- <sup>138</sup> “The Weather South,” *The New York Daily Times*, January 21, 1856.
- <sup>139</sup> “From Texas—Cold Weather,” *The New York Daily Times*, January 23, 1856.
- <sup>140</sup> “The Icy Term,” *The New York Daily Times*, February 6, 1856 and “Weather and Travel East,” *The New York Daily Times*, January 26, 1856.
- <sup>141</sup> “Nebraska,” *The New York Daily Times*, February 16, 1856.
- <sup>142</sup> “The Icy Term,” *The New York Daily Times*, February 6, 1856.
- <sup>143</sup> “Weather Reports,” *The New York Daily Times*, January 28, 1856.
- <sup>144</sup> “The Weather and the Ice,” *The New York Daily Times*, January 28, 1856 and “The Icy Term,” *The New York Daily Times*, February 6, 1856.
- <sup>145</sup> “The sky did not clear up at all on Sunday night [January 27]. At 9 o’clock, yesterday [January 28] morning, it commenced snowing hard, and continued without abatement till 2. The snow did not drift, but it made travel very heavy in the narrow streets where the banks were already high, and made capital sleighing for small crafts in all the thoroughfares” in “The Storm,” *The New York Daily Times*, January 29, 1856.
- <sup>146</sup> “Weather Reports,” *The New York Daily Times*, January 29, 1856.
- <sup>147</sup> “The Icy Term,” *The New York Daily Times*, February 6, 1856.
- <sup>148</sup> “Later from Texas—Severe Cold,” *The New York Daily Times*, January 30, 1856.
- <sup>149</sup> Untitled, *The New York Daily Times*, February 2, 1856.
- <sup>150</sup> David Ludlum, *Early American Winters: 1604-1820*, Boston: American Meteorological Society, 1966, p.277.
- <sup>151</sup> David Ludlum, *Early American Winters: 1604-1820*, Boston: American Meteorological Society, 1966, pp.276-277.

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- <sup>152</sup> Cold Weather at the South—State of the Lower Mississippi,” *The New York Daily Times*, February 8, 1856.
- <sup>153</sup> “The Icy Term,” *The New York Daily Times*, February 6, 1856.
- <sup>154</sup> “The Icy Term,” *The New York Daily Times*, February 6, 1856.
- <sup>155</sup> “Affairs in Kansas,” *The New York Daily Times*, February 16, 1856.
- <sup>156</sup> The National Weather Service.
- <sup>157</sup> “Weather Reports,” *The New York Daily Times*, February 5, 1856.
- <sup>158</sup> “The Weather on the Sound,” *The New York Daily Times*, February 5, 1856.
- <sup>159</sup> “Disaster in the East River,” *The New York Daily Times*, February 5, 1856.
- <sup>160</sup> “Intense Cold—Interruption to Travel,” *The New York Daily Times*, February 5, 1856.
- <sup>161</sup> “The Cold Weather,” *The New York Daily Times*, February 6, 1856.
- <sup>162</sup> “The Weather Quite Agreeable,” *The New York Daily Times*, February 7, 1856.
- <sup>163</sup> “The Cold Weather,” *The New York Daily Times*, February 6, 1856.
- <sup>164</sup> “The Cold Weather,” *The New York Daily Times*, February 6, 1856.
- <sup>165</sup> “The Weather Quite Agreeable,” *The New York Daily Times*, February 7, 1856.
- <sup>166</sup> “The Weather Quite Agreeable,” *The New York Daily Times*, February 7, 1856.
- <sup>167</sup> “The Ferry Boats—Cruising on the Ice—Vessels Detained in Port,” *The New York Daily Times*, February 7, 1856.
- <sup>168</sup> “Railroad Travel at the West,” *The New York Daily Times*, February 7, 1856.
- <sup>169</sup> “The Weather Elsewhere—Navigation, &c.,” *The New York Daily Times*, February 8, 1856.
- <sup>170</sup> “The Weather Elsewhere—Navigation, &c.,” *The New York Daily Times*, February 8, 1856.
- <sup>171</sup> “The Mild Term,” *The New York Daily Times*, February 9, 1856.
- <sup>172</sup> “Horrible Streets,” *The New York Daily Times*, February 13, 1856.
- <sup>173</sup> “Horrible Streets,” *The New York Daily Times*, February 13, 1856.
- <sup>174</sup> “The Storm in the Western Section of the State,” *The New York Daily Times*, February 19, 1856.
- <sup>175</sup> “Long Island,” *The New York Daily Times*, February 16, 1856.
- <sup>176</sup> “Long Island,” *The New York Daily Times*, February 16, 1856.
- <sup>177</sup> “Non-Arrival of the Canada,” *The Brooklyn Daily Eagle*, February 16, 1856.
- <sup>178</sup> “Snow Storm at Boston, &c.,” *The New York Daily Times*, February 18, 1856.

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- <sup>179</sup> “Detention of the Eastern Train,” *The New York Daily Times*, February 18, 1856.
- <sup>180</sup> “Railroad Travel Eastward,” *The New York Daily Times*, February 20, 1856.
- <sup>181</sup> “Railroad Travel East—Detention of the Mail,” *The New York Daily Times*, February 19, 1856.
- <sup>182</sup> “Snow Drifts on the Hudson River Railroad,” *The New York Daily Times*, February 21, 1856.
- <sup>183</sup> “The Traveling,” *The New York Daily Times*, February 19, 1856.
- <sup>184</sup> “The Ferries,” *The New York Daily Times*, February 19, 1856.
- <sup>185</sup> “Ice in the Hudson River,” *The New York Daily Times*, February 19, 1856.
- <sup>186</sup> “The Storm in the Western Section of the State,” *The New York Daily Times*, February 19, 1856.
- <sup>187</sup> “Blowing Up the Ice on the Mississippi River at St. Louis,” *The New York Daily Times*, February 22, 1856.
- <sup>188</sup> “Blowing Up the Ice on the Mississippi River at St. Louis,” *The New York Daily Times*, February 22, 1856.
- <sup>189</sup> “Washington’s Birthday in Boston,” *The New York Daily Times*, February 22, 1856.
- <sup>190</sup> “The Sound and the Ice,” *The New York Daily Times*, February 26, 1856.
- <sup>191</sup> “The Weather,” *The New York Daily Times*, February 28, 1856.
- <sup>192</sup> “March’s First Installment of Weather,” *The New York Daily Times*, March 3, 1856.
- <sup>193</sup> “March’s First Installment of Weather,” *The New York Daily Times*, March 3, 1856.
- <sup>194</sup> “Weather Westward,” *The New York Daily Times*, March 6, 1856.
- <sup>195</sup> “The Weather,” *The New York Daily Times*, March 12, 1856.
- <sup>196</sup> “The Weather,” *The New York Daily Times*, March 12, 1856.
- <sup>197</sup> “Fire in Philadelphia—The Weather,” *The New York Daily Times*, March 10, 1856.
- <sup>198</sup> “Great Severity of the Weather,” *The New York Daily Times*, March 11, 1856.
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- <sup>201</sup> “The Weather,” *The New York Daily Times*, March 12, 1856.
- <sup>202</sup> “The Weather,” *The New York Daily Times*, March 12, 1856.
- <sup>203</sup> “A Chronicle of Cold Weather,” *The New York Daily Times*, March 12, 1856.
- <sup>204</sup> “Railroad Traveling in Canada,” *The New York Daily Times*, March 12, 1856.

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- <sup>205</sup> “St. Patrick Not A Bit Moist,” *The New York Daily Times*, March 18, 1856.
- <sup>206</sup> “The Weather,” *The New York Daily Times*, March 20, 1856.
- <sup>207</sup> “The Weather,” *The New York Daily Times*, March 20, 1856.
- <sup>208</sup> “The Weather,” *The New York Daily Times*, March 20, 1856.
- <sup>209</sup> “The Weather,” *The New York Daily Times*, March 21, 1856.
- <sup>210</sup> “The Steamer Knoxville,” *The Brooklyn Daily Eagle*, March 24, 1856.
- <sup>211</sup> “The Weather Yesterday—St. Patrick,” *The New York Daily Times*, March 25, 1856.
- <sup>212</sup> “The Weather and the Crops,” *The New York Daily Times*, April 3, 1856.
- <sup>213</sup> “The Weather Yesterday,” *The New York Daily Times*, March 29, 1856.
- <sup>214</sup> “The Weather and the Crops,” *The New York Daily Times*, April 3, 1856.
- <sup>215</sup> “Snow Storm at the South,” *The New York Daily Times*, April 1, 1856.
- <sup>216</sup> “The Weather South,” *The New York Daily Times*, April 3, 1856.
- <sup>217</sup> “Opening of Navigation, the Weather, &c.,” *The New York Daily Times*, April 4, 1856.
- <sup>218</sup> “Opening of Navigation, the Weather, &c.,” *The New York Daily Times*, April 4, 1856.
- <sup>219</sup> “Opening of Navigation, the Weather, &c.,” *The New York Daily Times*, April 4, 1856.
- <sup>220</sup> “Weather at Montreal,” *The New York Daily Times*, April 7, 1856.
- <sup>221</sup> “Navigation of the St. Lawrence,” *The New York Daily Times*, April 9, 1856.
- <sup>222</sup> “Weather at Bangor—Two Men Drowned,” *The New York Daily Times*, April 11, 1856.
- <sup>223</sup> “Dreadful Storm on Lake Michigan,” *The New York Daily Times*, April 17, 1856.
- <sup>224</sup> “The Storm Westward,” *The New York Daily Times*, April 15, 1856.
- <sup>225</sup> “The Hurricane,” *The New York Daily Times*, April 17, 1856.
- <sup>226</sup> “The Tornado at Philadelphia,” *The New York Daily Times*, April 15, 1856.
- <sup>227</sup> “Latest By Telegraph,” *The New York Daily Times*, April 15, 1856.
- <sup>228</sup> “The Weather in Boston,” *The New York Daily Times*, April 14, 1856.
- <sup>229</sup> “The Weather—Snow and Rain,” *The New York Daily Times*, April 21, 1856.
- <sup>230</sup> “The Gale,” *The New York Daily Times*, April 22, 1856.
- <sup>231</sup> “Reports Received by Telegraph,” *The New York Daily Times*, April 22, 1856.

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- <sup>232</sup> “The Gale,” *The New York Daily Times*, April 23, 1856.
- <sup>233</sup> “News By The Mails,” *The New York Daily Times*, April 29, 1856.
- <sup>234</sup> “Freshet in the Hudson River,” *The New York Daily Times*, April 23, 1856.
- <sup>235</sup> “The Freshet Subsiding at Albany,” *The New York Daily Times*, April 24, 1856.
- <sup>236</sup> “News By The Mails,” *The New York Daily Times*, April 29, 1856.
- <sup>237</sup> “The Weather and the Crops,” *The New York Daily Times*, May 9, 1856.
- <sup>238</sup> “The Heat and the Change,” *The New York Daily Times*, May 27, 1856.
- <sup>239</sup> “The Heat and the Change,” *The New York Daily Times*, May 27, 1856.
- <sup>240</sup> “The Heat and the Change,” *The New York Daily Times*, May 27, 1856.
- <sup>241</sup> “The Weather,” *The New York Daily Times*, May 26, 1856.
- <sup>242</sup> “Snow Storm at Pittsburg,” *The New York Daily Times*, May 31, 1856.
- <sup>243</sup> “Snow at the Eastward,” *The New York Daily Times*, June 2, 1856.
- <sup>244</sup> Untitled, *The Brooklyn Daily Eagle*, June 14, 1856.
- <sup>245</sup> Temperatures in New York City rose to 90°, 96°, and 98° during the June 20-22, 1856. On June 22, the temperature at Washington, DC ranged from 92° to 100°. Baltimore saw 95° and Philadelphia 98°. “The Weather,” *The New York Daily Times*, June 23, 1856.
- <sup>246</sup> On June 29, the temperature peaked at between 90° to 100° in Boston, 96° (in a steeple of the State House at an elevation of 100 feet) to 98° in Philadelphia and 95° to 98° in Baltimore. “The Weather,” *The New York Daily Times*, June 30, 1856.
- <sup>247</sup> Modern records through February 29, 2004 from the National Weather Service.
- <sup>248</sup> David Ludlum, *Early American Winters: 1604-1820*, Boston: American Meteorological Society, 1966, pp.272, 276-277.
- <sup>249</sup> Sources of information: Unclew (WWBB) and Roger Brickner.
- <sup>250</sup> Reconstructed Monthly NAO Index Back to Dec 1658 at [ftp://ftp.ngdc.noaa.gov/paleo/historical/north\\_atlantic/nao\\_mon.txt](ftp://ftp.ngdc.noaa.gov/paleo/historical/north_atlantic/nao_mon.txt).