

001479

UNITED STATES DEPARTMENT OF COMMERCE

WEATHER BUREAU

719 Federal Building
Cincinnati, Ohio 45202

ICE IN THE OHIO RIVER AT CINCINNATI 1874 THROUGH 1964

Ice has appeared in the Ohio River at Cincinnati in 62 of the past 90 winters since 1874, 28 winters (31.1%) having been without ice. While the formation of ice is directly related to the temperature of the water which must be at or near freezing, the official minimum atmospheric temperatures at Cincinnati have averaged as follows: with the occurrence of light ice 13°, heavy ice 9°, frozen 3°.

Light floating ice has usually been followed in about one day by heavy floating ice; and the river has usually frozen over after about three days of heavy ice. Actually, however, considerable quantities of light ice have appeared 66 times and heavy ice followed it only 49 times; while heavy ice appeared 15 times without light ice preceding it. The river has frozen over in only 13 winters in the 90 years of record, always following heavy or gorged ice.

	Earliest ice of record	Latest ice of record	Number of days Earliest to Latest
Light ice	December 6	March 9	94
Heavy ice	December 9	March 2	84
Frozen over	December 10	February 23	76
Gorged	December 10	March 1	82
Navigation Suspended	December 9	March 5	87

Total number of days with ice by months and percentage of the total occurring in each month:

	December		January		February		March		Total Number of Days
	Days	%	Days	%	Days	%	Days	%	
Light ice	76	15	237	48	174	35	10	2	497
Heavy ice	84	17	220	45	186	38	2	0	492
Frozen over	11	10	57	49	48	41	0	0	116
Gorged	58	29	100	51	38	19	1	1	197
Total all kinds*	229	18%	614	47%	446	34%	13	1%	1302

*not including Navigation Suspended
which would be duplication.

Navigation Suspended	109	19%	279	49%	175	30%	9	2%	572
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The longest continuous periods of ice have been as follows:

Light ice	January 1 to 23, 1887.....	23 days
	January 20 to February 8, 1888.....	20 days
	February 12 to 28, 1901.....	17 days
Heavy ice	February 1 to 20, 1875.....	20 days
	January 9 to 22, 1905.....	14 days
	February 8 to 20, 1902.....	13 days
Frozen over	January 14 to 28, 1893.....	15 days
	February 10 to 23, 1895.....	14 days
	February 1 to 12, 1948.....	12 days
Gorged	December 17, 1917 to February 12, 1918.....	58 days
	December 15, 1876 to January 14, 1877.....	31 days
	February 11 to 28, 1905.....	18 days
	January 5 to 21, 1904.....	17 days
Navigation		
Suspended	December 10, 1917 to February 12, 1918.....	65 days
	December 14, 1903 to February 7, 1904.....	56 days
	December 9, 1876 to January 17, 1877.....	40 days
	January 25 to March 3, 1905.....	38 days

As the navigation dams increase in size, the deeper and larger pools retard somewhat the formation of ice in the river. Before the completion of Dam 37 at Fernbank, Ohio the Cincinnati stages were frequently as low as five feet. After 1936 the stage at Cincinnati was rarely less than eleven feet; and, since January 1, 1963 Warsaw-Markland Dam has maintained a stage of more than 25 feet at the Cincinnati gage.

Character and dates of ice from 1874 through 1964 follow:

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WINTER OF . LIGHT FLOATING . HEAVY FLOATING . FROZEN OVER . ICE GORGED . SUSPENDED					NAVIGATION
1874-1875	Jan. 7,8,9,13, 14,16,17,30. Feb. 21.	Jan. 10,11,12, 18,19. Feb. 1, 2,3,4,5,6,7,8, 9,10,11,12,13, 14,15,16,17, 18,19,20.		Jan. 20,21, 22,23,24, 25,26,27, 28.	Jan. 11,12, 19,20,21 22,23,24, 25,26,27, 28. Feb. 4, 6,7,8,9, 10,11,12, 13,14,15, 16,17,18, 19,20.
1875-1876	No ice				
1876-1877	Jan. 17, 18.	Dec. 9,12,13, 14. Jan.15,16.		Dec.10,11, 15,16,17, 18,19,20, 21,22,23, 24,25,26, 27,28,29, 30,31. Jan. 1,2, 3,4,5,6, 7,8,9,10, 11,12,13, 14.	Dec. 9,10, 11,12,13, 14,15,16, 17,18,19, 20,21,22, 23,24,25, 26,27,28, 29,30,31. Jan. 1,2, 3,4,5,6, 7,8,9,10, 11,12,13, 14,15,16, 17.
1877-1878	Jan. 7,9,10, 11,12.	Jan. 8.			Jan. 8.
1878-1879	Dec. 23, Jan. 19,23, 25,26,27. Feb. 2,14, 18,19,22, 23.	Dec. 24,25, 26,27,28,29, 30,31. Jan. 1, 14,15,16,17, 18,20,21,22, 24,28,29. Feb. 20,21.	Jan. 4,5, 6,7,8,9, 10,11,12, 13.	Jan. 2,3, 4,5,6,7, 8,9,10,11, 12,13.	Dec. 24,25, 26,27,28, 29,30,31. Jan. 2,3,4, 5,6,7,8,9, 10,11,12, 13,14,20, 21. Feb.20.
1879-1880	No ice				

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WINTER OF . LIGHT FLOATING . HEAVY FLOATING . FROZEN OVER . ICE GORGED .					NAVIGATION . SUSPENDED
1880-1881	Dec. 25,26,27. Jan. 13,14,15, 16,17,18,19, 20,22,26,28. Feb. 7,8,9,10, 11,13,15.	Dec. 28. Jan. 8,9,10,11,12, 27,29,30,31. Feb. 1,2,3,4, 5,6,14.	Dec. 30,31, Jan. 1,2,3, 4,5,6,7.	Dec. 29. Jan. 21.	Dec. 29,30, 31. Jan. 1, 2,3,4,5,6, 7,8,9,10, 11,12.
1881-1882	No ice				
1882-1883	Dec. 8,9,20. Jan. 13,14, 16,17,21,26, 27,28,29.	Dec. 16,17, 18,19. Jan. 15. Feb. 7, 8.			
1883-1884	Jan. 7,10,11, 12,14,15,16, 17,18,19,20, 21,22,23,24, 26,28,29,30, 31. Feb. 1.	Dec. 24. Jan. 8,9,13,25.			Jan. 7,8,9, 10,11.
1884-1885	Dec. 24,27, 29,30. Jan. 2,3,5,6,7,8, 25,26,30,31, Feb. 1,2,3, 6,11,12,15, 16,27, Mar. 1,2,3,4,8,9.	Dec. 25,27, 28. Jan. 27, 28,29. Feb. 13,14,17,18, 19,20,21,22, 23,24,25,26, 28.			Feb. 13,14, 17,18,19,20, 21,22,23,24, 25,26,27,28. Mar. 1,2,3, 4,5.
1885-1886	Jan. 12,13, 21,22. Feb. 3,4,5,6,7, 8,9,10.	Jan. 14,15, 16,17,18, 19,20.			
1886-1887	Jan. 1,2,3, 4,5,6,7,8,9, 10,11,12,13, 14,15,16,17, 18,19,20,21, 22,23.				Jan. 5,6,7.

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					NAVIGATION
WINTER OF . LIGHT FLOATING . HEAVY FLOATING . FROZEN OVER . ICE GORGED . SUSPENDED					
1887-1888	Dec. 29,30,31. Jan. 1,2,3,4, 5,6,7,8,20,21, 22,23,24,25, 26,27,28,29, 30,31. Feb. 1, 2,3,4,5,6,7,8.				
1888-1889	No ice				
1889-1890	No ice				
1890-1891	No ice				
1891-1892	No ice				
1892-1893		Dec. 28,29. Jan. 29,30.	Jan. 6,7,14, 15,16,17,18 19,20,21,22, 23,24,25,26, 27,28.	Jan. 7,8, 9,10,11, 12,13,21.	Dec. 28,29, Jan. 6,7,8, 9,10,14,15, 16,17,18,19, 20,21,22,23, 24,25,26,27, 28,29,30,31. Feb. 1,2,3.
1893-1894	No ice				
1894-1895	Dec. 29. Jan. 1.	Dec. 30,31. Jan. 2,3,4, 5,28,29,30, 31. Feb. 1, 2,3,4,5,6, 7,26,27,28.	Feb. 10,11, 12,13,14,15, 16,17,18,19, 20,21,22,23.	Feb. 8,9, 24,25.	Feb. 6,7,8, 9,10,11,12, 13,14,15,16 17,18,19,20 21,22,23,24 25,26.
1895-1896	Jan. 6, Feb. 21.				
1896-1897	Feb. 6.	Jan. 25,26, 27,28,29,30, 31. Feb. 1, 2, 4.		Jan. 31. Feb. 1,3, 4.	Jan. 25,26, 27,28,29,30, 31. Feb. 1, 3,4.
1897-1898	Jan. 3,4, Feb. 3,5,6.	Feb. 4.			

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WINTER OF . LIGHT FLOATING . HEAVY FLOATING . FROZEN OVER . ICE GORGED .					NAVIGATION SUSPENDED
1898-1899	Dec. 8. Feb. 2,3,9.	Dec. 14,15,16. Feb. 1,10,11, 12,13,15,16,17.			Dec. 14. Feb. 1,13, 14,15,16,17
1899-1900	Dec. 29. Jan. 7,9,12,13,14, 16,17.	Dec. 30. Jan.1, 2,3,4,5,6,8,15.			Jan. 1,2,3, 4,5,6,7,8.
1900-1901	Jan. 31. Feb. 12,13,14,15, 16,17,18,19, 20,21,22,23, 24,25,26,27,28.				
1901-1902	Dec. 18,19, Jan. 20,21,22, 23,24,25,26. Feb. 21,22,23, 24,25.	Jan. 13,14,15, 16,17,18,19. Feb. 8,9,10, 11,12,13,14,15, 16,17,18,19,20.			Jan. 17,18, 19. Feb. 9, 10,11,12,13 14,15,16,17 18,19,20.
1902-1903	Jan. 11, 23.	Jan. 12,13,14, 15,16,17,18, 19,20,21,22.			Jan. 12,13, 14,15,16,17
1903-1904	Dec. 6,8,25. Jan. 29,30,31. Feb. 1,24,26, 27,28,29.	Dec. 14,15,21, 22,23,24,29, 30,31. Jan. 1, 2,3,4,22,23, 24,25,26,27, 28. Feb. 2,3, 4,5,6,7,11, 12,13,15,16, 17,18,19,20, 21,22,23,25.	Dec. 18,19.	Dec. 16,17, 18,19,20, 26,27,28, 29. Jan.5, 6,7,8,9,10, 11,12,13, 14,15,16, 17,18,19, 20,21.	Dec. 14,15, 16,17,18,19 20,21,22,23 24,25,26,27 28,29,30,31 Jan. 1,2,3, 4,5,6,7,8,9 10,11,12,13 14,15,16,17 18,19,20,21 22,23,24,25 26,27,28,29 30,31. Feb. 1,2,3,4,5,6 7,11,12,13 15,16,17,18 19,20,21,22 23,24,25.

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					NAVIGATION
WINTER OF . LIGHT FLOATING . HEAVY FLOATING . FROZEN OVER . ICE GORGED .					SUSPENDED
1904-1905	Dec. 12,13,14, 24. Mar. 1.	Jan. 9,10,11, 12,13,14,15, 16,17,18,19, 20,21,22,25, 26,27,28,29, 30,31. Feb. 1. Mar. 2.	Feb. 2,3,4, 5,6,7,8,9, 10.	Dec. 15,16, 17,18,19, 20,21,22, 23. Feb. 2, 11,12,13, 14,15,16, 17,18,19, 20,21,22, 23,24,25, 26,27,28, Mar. 1.	Dec. 14,15, 16,17,18,19, 20,21,22,23, 24,25,26,27, 28. Jan. 9, 10,11,12,13, 14,15,16,27, 18,19,20,21, 22,25,26,27, 28,29,30,31, Feb. 1,2,3, 4,5,6,7,8,9, 10,11,12,13, 14,15,16,17, 18,19,20,21, 22,23,24,25, 26,27,28, Mar. 1,2,3.
1905-1906	Feb. 5,7,8.	Feb. 10,11, 12,13,14.			Feb. 12,13, 14.
1906-1907		Feb. 8,9.			
1907-1908	Jan. 30,31. Feb. 1,10,11.	Feb. 2,3,4,5, 6,7,8,9.			
1908-1909	No ice				
1909-1910	Jan. 8,14,15, 16, Feb. 12, 15,21,22,24.	Dec. 19,20, 21,22,23,24, 25,26,27. Jan. 4,5,6,7,9,10, 11,12,13. Feb. 13,14,16,17,18, 19,20,23.	Dec. 29,30, 31. Jan. 1, 2,3.	Dec. 27,28. Jan. 5,6.	Dec. 27,28, 29,30,31. Jan. 1,2,3, 4,5,6.
1910-1911	Dec. 20,27, 28,29,31.	Dec. 16,17,18, 19,21,22,23,24, 25,26. Jan. 4.			

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1911-1912	Jan. 27,28. Feb. 4,16,17, 18,19,20,21, 22,23,24. Mar. 3.	Jan. 8,9,10, 11,12,13,14, 15,16,19,20,21, 22,23,24,25,26. Feb. 5,6,7,8,9, 10,11,12,13,14, 15,25.	Jan. 16,17.	Jan. 18, 19,20.	Jan. 16,17, 18,19,20, 21,22,23, 24,25,26, 27,28.
1912-1913	Feb. 12,13, 14,15.				
1913-1914	Feb. 18,19, 20,26,27,28, Mar. 2,3.				Feb. 26.
1914-1915	Dec. 22,24, 30,31. Jan. 1,2.	Dec. 23,27,28, 29.			
1915-1916	No ice				
1916-1917	Dec. 16,17,18, 19,20,21,22,23, 24,25,26,27. Jan. 17,18,21. Feb. 16,17,18, 19,20.	Jan. 19,20, Feb. 9,10,11, 12,13,14,15.			
1917-1918		Dec. 10,14, 15,16. Feb. 13,14.	Dec. 11, 30,31.	Dec. 11,12, 13,17,18, 19,20,21, 22,23,24,25, 26,27,28,29, 30,31. Jan. 1, 2,3,4,5,6,7, 8,9,10,11,12, 13,14,15,16, 17,18,19,20, 21,22,23,24, 25,26,27,28, 29,30,31. Feb. 1,2,3,4, 5,6,7,8,9, 10,11,12.	Dec. 10,11, 12,13,14,15, 16,17,18,19, 20,21,22,23, 24,25,26,27, 28,29,30,31. Jan. 1,2,3, 4,5,6,7,8,9, 10,11,12,13, 14,15,16,17, 18,19,20,21, 22,23,24,25, 26,27,28,29, 30,31. Feb. 1,2,3,4,5,6, 7,8,9,10, 11,12.

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				NAVIGATION
WINTER OF	LIGHT FLOATING	HEAVY FLOATING	FROZEN OVER	ICE GORGED . SUSPENDED
1918-1919	Dec. 9.	Dec. 13,14,15.	Dec. 10.	
1919-1920	Dec. 26,27, Jan. 11,12,13, 14,15,16,17, 18,19,20,21.	Dec. 25. Jan.4, 5,6,7,8,9,10.		Jan. 2,3,4, 5,6,7,8,9, 10.
1920-1921	No ice			
1921-1922	No ice			
1922-1923	No ice			
1923-1924	Jan. 26,30,31. Feb. 1.	Jan. 27,28,29.		
1924-1925	Dec. 28. Jan. 30,31.	Dec. 29,30,31. Jan. 1,2,3.		
1925-1926	Jan. 4,5,6,7, 8,9,10,11,19, 31. Feb. 1,2, 3.	Dec. 27,28,29, 30,31. Jan. 1, 2,3,12,13,14, 15,16,17,18, 29,30.		Dec. 28,29, 30,31. Jan. 1,2,3,4,12, 13,14,15, 16,17,18.
1926-1927	Jan. 15,18,19.	Jan. 16,17.		
1927-1928	Jan. 2,3,10, 11,12,30,31. Feb. 1,3,4.	Jan. 4,5,6,7, 8,9. Feb. 2.		Jan. 4,5,6, 7,8,9,10.
1928-1929	Jan. 8,9,13, 14,15,17,18, Feb. 2,3,9, 10,11,12,13.	Jan. 16. Feb.4, 5,6,7,8.		
1929-1930	Jan. 26,27,28, 29. Feb. 2,3.	Jan. 30,31. Feb. 1.		
1930-1931	Jan. 1,2,3,4, 5,15,16,17,22, 23,24.			

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WINTER OF . LIGHT FLOATING . HEAVY FLOATING . FROZEN OVER . ICE GORGED .				NAVIGATION SUSPENDED
1931-1932	No ice			
1932-1933	Dec. 18,19,20, 21,22,23. Feb. 16.			
1933-1934	Feb. 9,13,14, 15,17,18,19, 20,21,24.	Feb. 10,11,12, 25,26,27,28. Mar. 1.	Feb. 13,14, 15,26,27,28. Mar. 1.	
1934-1935	No ice			
1935-1936	Dec. 26. Jan. 3,4,5,24,25. Feb. 4,5,9, 14,15,19,20 22,23.	Dec. 27,28,29, 30,31. Jan. 1, 2,26,27,28,29, 30,31. Feb. 1, 2,3,6,7,8,10, 11,12,13,16, 17,18,21.	Dec. 27,28, 29,30,31. Jan. 1,2,24, 25,26,27,28, 29,30,31. Feb. 1,2,3, 4,5,6,7,8,9, 10,11,12,13, 14,17,18,20, 22.	
1936-1937	No ice			
1937-1938	Dec. 10,11,12, 13,14,15,16,17.	Dec. 14,15, 16.		
1938-1939	No ice			
1939-1940	Jan. 3,15,16, 17,18. Feb. 13,14,15.	Jan. 4,14,19, 20,21,22,23, 24. Feb. 10, 11,12.	Jan. 5,6,7, 8,9,10,11, 12,13,25,26, 27,28,29,30, 31. Feb. 1, 2,3,4,5,6,7, 8,9.	Jan. 5,6,7, 8,9,10,11, 12,13,20,20 21,22,23,24 25,26,27,28 29,30,31. Feb. 1,2,3, 4,5,6,7,8,9
1940-1941	No ice			

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WINTER OF . LIGHT FLOATING . HEAVY FLOATING . FROZEN OVER . ICE GORGED .				NAVIGATION SUSPENDED
1941-1942	Jan. 8.	Jan. 9,10,11, 12,13,14.		Jan. 9,10, 11,12,13,14.
1942-1943	No ice			
1943-1944	No ice			
1944-1945	Feb. 1,2,3,4, 5,6,7,8.			
1945-1946	Dec. 20,21,22, 25,26,27,28.	Dec. 23, 24.		
1946-1947	Feb. 10,11,12, 13,14.	Feb. 24,25, 26,27,28.		
1947-1948	Jan. 19.	Jan. 20,21,22, 23,24,25,26, 27,28,29. Feb. 13,14,15.	Feb. 1,2,3, 4,5,6,7,8, 9,10,11,12.	Jan. 30,31.
1948-1949	No ice			
1949-1950	No ice			
1950-1951	No ice			
1951-1952	No ice			
1952-1953	No ice			
1953-1954	Dec. 24.			
1954-1955	No ice			
1955-1956	Jan. 14.			
1956-1957	No ice			
1957-1958	Feb. 14,15,16, 20,21,22,23,24.	Feb. 17,18,19.		Feb. 18.
1958-1959	No ice			
1959-1960	No ice			