

Steamboat History Timeline

By Ashley L. Ford*

1711: Thomas Newcomen of Devonshire, England, develops working model of first practical "atmospheric" (low-pressure, condensing) steam engine, using steam to produce partial vacuum in cylinder to move piston, for pumping water out of tin mines

1763: James Watt of Greenock, Scotland, starts development of improved "non-atmospheric" engine using low-pressure steam as actual propulsion agent, with external condenser replacing Newcomen's method of condensing steam by injection of water into main cylinder; eventually establishes firm of Boulton & Watt to market engines

1776: Continental Congress declares independence from British Crown

1781: General Cornwallis surrenders at Yorktown, confirming the independence of the former Colonies

1786: John Fitch of East Windsor, Connecticut, demonstrates 12-oared steam paddleboat on Delaware River at Philadelphia but is unable to attract financial support

1787: Ordinance of 1787 opens up Northwest Territory (north of the Ohio River) to legal settlement John Cleves Symmes negotiates with Congress for purchase of land between the two Miami Rivers (the "Symmes Purchase")

1788: Village of "Losantiville" founded on banks of the Ohio River, opposite mouth of the Licking River, on 740 acres purchased by Mathias Denman from John Cleves Symmes

1790: "Losantiville" is renamed "Cincinnati" at suggestion of Governor Arthur St Clair, following move of Territory government from Marietta to Fort Washington --- in recognition of The Society of the Cincinnati, comprised of officers, including himself, who had fought in the Revolution (and might be enticed to come west to the new settlement!)

1792: Kentucky is admitted to the Union as 15th State

1794: General "Mad" Anthony Wayne defeats Indians at Battle of Fallen Timbers on Maumee River, opening up Ohio country to unhindered settlement

1801-10: Oliver Evans at Philadelphia and Richard Trevithick and Andrew Vivian in England develop high-pressure, non-condensing steam engines, destined to become preferred power source for transportation purposes (marine and rail)

1803: Ohio is admitted to Union as 17th State

1807: Robert Fulton of Lancaster County, Pennsylvania demonstrates steam-powered sidewheeler on Hudson River using low-pressure engine from Boulton & Watt of England; Fulton and Robert Livingston organize first commercial steam navigation service, on Hudson River, under grant of monopoly by New York legislature

1809: Daniel French pioneers use of high-pressure engine with oscillating cylinder attached directly to the paddlewheel, without rocking arm—used on *Enterprise* of 1815

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1811: Robert Fulton and Robert Livingston secure grant of monopoly on steam navigation in Territory of Orleans (Louisiana)

1811: Oliver Evans establishes first steam engine manufactory in the west, at Pittsburgh

1812: President Madison asks Congress to declare war against Great Britain, formalizing the struggle between the mother country and the former colonies known to history as the "War of 1812"

1812: Fulton-Livingston sidewheeler *New Orleans* (371 tons) under Captain Nicholas Roosevelt reaches New Orleans from Pittsburgh for first time --- after being caught in the New Madrid earthquake of 1811; goes into New Orleans-Natchez "trade" (service)

1813-15: Henry M. Shreve and Daniel French build series of boats at Brownsville, Pennsylvania on the Monongahela River above Pittsburgh, including *Comet* (25 tons), *Despatch* (25 tons), *Enterprise* (75 tons), and *Washington* (403 tons)

1814-15: Fulton group adds *Vesuvius* (340 tons), *Aetna* (360 tons), and second *New Orleans* (324 tons) to New Orleans-Natchez trade

1815: Steamboat *Enterprise* (75 tons) under Captain Henry M. Shreve arrives in New Orleans in challenge of Fulton-Livingston monopoly and is seized on order of court; is released and ascends Mississippi and Ohio back to Brownsville, Pennsylvania

1815: Robert Fulton dies in New York, of pleurisy

1815-16: Fulton-Livingston boat *Aetna* (360 tons) makes multiple trips from New Orleans to Louisville, Kentucky

1816: Indiana is "admitted to Union as 19th State

1816: Henry M. Shreve experiments with boiler on main deck and nearly horizontal, high-pressure non-condensing engines connected to side paddlewheels with wooden "pitman arms," on steamboat *Washington* (403 tons), setting basic pattern for steamboats of the future

1817: Steamboat *Washington* (403 tons) under Henry M. Shreve makes it to Louisville from New Orleans in record 25 days, demonstrating once and for all the future of steamboating "on the western waters"

1818: Fulton heirs abandon further attempts to enforce monopoly of steam navigation in Louisiana

1824: Supreme Court of the United States formally annuls Fulton-Livingston monopoly of steam navigation in New York as in violation of free commerce in waters of the U.S.

1825: Henry M. Shreve on steamboat *George Washington* (355 tons) sets pattern of adding third or "hurricane" deck on top, with "boiler deck" above "main deck" for first class passengers (but see 1830s)

1825: Steamboats regularly making 100 miles a day in commercial service; capacity reaches one ton of cargo for each measured ton of boat (reaching nearly two-to-one by 1880)

1825: Erie Canal is completed in New York State, providing alternate route to sea via New York, independent of western rivers to New Orleans

1825-30: Louisville & Portland Canal is constructed around Falls of the Ohio at Louisville, with lock taking boats up to 183' long by 49 1/2' wide; favored by Cincinnati but opposed by Louisville interests as bad for transfer business

1826: Henry M. Shreve is appointed as Superintendent of Western River Improvements, under War Department, inaugurating program for removal of "snags" on western rivers

1826: Start of Cincinnati and Louisville coordinated service known as United States Mail Line

1829: Shreve's new snagboat *Heliopolis* goes into service

1830: Population of Cincinnati reaches 24,800

1830s: Night running becomes standard practice—even without beacons or searchlights

1830s: Development of coal fields near Pomeroy, Ohio, offers economical alternative to wood as steamboat fuel

1830s: Gentlemen's Cabin moves to second (boiler) deck, leaving main deck entirely for freight and deck passengers

1830-40: Steam cut-off system is developed for engine pistons, improving efficiency and quieting steam exhaust by allowing steam to expand for rest of stroke

1832: Ohio Canal from Cleveland to Portsmouth, Ohio is completed, feeding traffic to New York State's Erie Canal via the Great Lakes

1832: Steamboat "line" begins coordinated service in Cincinnati-New Orleans trade

1832: Cholera epidemic spreads up western river system, largely by steamboat

1832: Henry M. Shreve clears "great raft of the Red River," opening service to newly-founded Shreveport, Louisiana

1837: Steamboat *Monmouth* sinks in Mississippi after collision, taking lives of 400 Indians being transported west

1837-50: Federal marine hospital system is established on western rivers, to provide health care to injured steamboat workers

1838: Steamboat *Oronoko* (367 tons) blows up above Vicksburg, killing 100

1838: Steamboat *Moselle* (150 tons) blows up at Fulton just above Cincinnati, killing 150 out of 280 on board

1838: Steamboat Inspection Act of 1838 attempts to regulate safety of steam navigation but is vague and largely ignored

1838: Navigation dams are begun on Monongahela River above Pittsburgh

- 1838:** Cincinnati (Union) Bethel is founded to provide spiritual guidance to rivermen
- 1840:** Population of Cincinnati reaches 46,800
- 1840-45:** Introduction of separate steam "doctor pumps" to supply water to boilers independently of main engines, significantly reducing risk of explosions on steamboats
- 1841:** Completion of shift to private staterooms for first class passengers (from ladies' and gentlemen's dormitories)
- 1842:** Start of Pittsburgh and Cincinnati Packet Line for coordinated service by independent boats running between these ports
- 1844:** Steamboat *Yorktown* (336 tons) adds "Texas" on top of hurricane (third) deck, for officer staterooms
- 1846:** Miami & Erie Canal is completed from Toledo to Cincinnati
- 1846:** President Polk vetoes general Rivers & Harbors Act as unconstitutional, cutting off further funding for river improvements, including snag removal, until after the Civil War
- 1848-54:** Cholera epidemics once again spread up western river system, facilitated by proliferating steamboat service
- 1849:** Construction of railroad suspension bridge at Wheeling triggers legal contest between steamboat and overland interests; steamboats win on the surface, but bridge building is legitimized for the future
- 1850:** Population of Cincinnati reaches 115,435
- 1850:** Introduction of steam-driven capstans eases work of deckhands
- 1850-60:** Telegraph network begins to assist steamboat operations as well as railroads, as to both business operations and navigational needs
- 1852:** Pennsylvania Central Railroad is completed to Ohio River
- 1852:** Steamboat *Eclipse* (1,117 tons) is built at record 350' of length, with 300' cabin!
- 1852:** Steamboat Inspection Act of 1852 finally puts teeth into steamboat safety regulation by establishing inspection districts at Pittsburgh, Cincinnati, Louisville, St. Louis, Memphis and New Orleans, and requiring inspection of hulls and boilers, licensing of pilots and engineers, use of steam pressure gauges, etc.
- 1852:** Baltimore & Ohio Railroad is completed to Ohio River
- 1853:** "Marine associations" or combines begin to appear on Ohio River, to protect steamboat interests from price competition in face of threat from railroads
- 1853:** Steamboat *Jacob Strader* (905 tons) is completed at Cincinnati for Cincinnati & Louisville U.S. Mail Line, as longest boat (375') built above falls at Louisville
- 1854:** Completion of Cincinnati-Louisville railroad connection

- 1855:** Formation of Grand Union Association of Steamboat and Steamship Engineers
- 1855:** Stock of Louisville & Portland Canal Company (around Falls of the Ohio) is bought up in trust for the Federal Government
- 1855:** Introduction of "balance rudders" on sternwheelers, to improve maneuverability
- 1856:** Collapse of Pittsburgh and Cincinnati Packet Line under competition from rail connection to Pittsburgh
- 1857:** Completion of direct Cincinnati-St. Louis railroad connection
- 1858:** Steamboat *Ohio No. 3* introduces hot and cold running water in every stateroom
- 1859:** Completion of Louisville & Nashville Railroad to Memphis, offering rail alternative to mid-South
- 1860:** Resumption of federal support for river improvements
- 1860:** Population of Cincinnati reaches 161,000, as the sixth largest city in the United States and the largest west of the Alleghenies
- 1861:** Confederate attack on Fort Sumter starts American Civil War, initially devastating civilian river commerce
- 1862:** Union military needs temporarily restore steamboating prosperity
- 1862:** Cincinnati-based steamboats *Queen of the West* and *Lancaster No. 3* are converted into rams for military use on the Union side
- 1865:** Confederate General Robert K Lee surrenders to Union General Ulysses S. Grant at Appomattox Court House, Virginia, ending the U.S. Civil War
- 1865:** Steamboat *Sultana* (561 tons) blows up on Mississippi, killing over 1500 newly-released Union Army veterans on the way north from Southern prison camps
- 1865:** Sternwheel towboating starts to take over from sidewheel packet boats as dominant form of 1865 river traffic, even as packet boats get bigger and more elegant in effort to compete with railroads for passenger patronage
- 1867:** Steamboat *Great Republic* becomes "biggest of them all," at almost 1,800 tons!
- 1869:** Louisville Pilots Association sets up first beacon light system on western rivers (at Grand Chain on lower Ohio)
- 1870:** Population of Cincinnati reaches 216,000
- 1870:** Steamboat *Robert E Lee* wins race against steamboat *Natchez* in race from New Orleans to St. Louis
- 1870s:** Suspended "landing stage" at bow is introduced to replace use of planks for boarding
- 1871:** Lock of canal around Falls of the Ohio at Louisville is enlarged to 335' X 80'

- 1871:** Steamboat Act of 1871 requires licensing of captains as well as pilots and engineers; Federal government begins service of monitoring stages of the rivers
- 1874:** Louisville & Portland Canal around Falls of the Ohio at Louisville is transferred to direct Federal ownership
- 1874:** Federal government authorizes beacon system on western rivers
- 1875:** Electric arc searchlights are introduced for river navigation
- 1879:** Federal government starts construction of system of wicket dams on Ohio River
- 1879:** Mississippi River Commission is established to improve navigation and reduce flooding on upper and lower Mississippi
- 1880:** Cincinnati Southern Railroad is completed to Chattanooga, Tennessee
- 1890:** Captain Gordon C. Greene founds Greene Line Steamers to offer short-line packet (freight and passenger) service on upper Ohio
- 1909:** Regular scheduled packet service is gone from lower Mississippi, while packet service on the Ohio is reduced to serving smaller towns without railroad service, or freight-only
- 1918:** Mid-January break-up of ice destroys steamboats *City of Cincinnati*, *City of Louisville*, and others tied up for the winter along the Cincinnati Public Landing
- 1922:** Fire on steamboat *Morning Star* (in Coney Island service) spreads to *Island Queen* (I) and also the *Chris Greene* and *Tacoma* of Greene Line Steamers, destroying them all at cost of \$350,000
- 1923:** Greene Line Steamers commissions replacement steamboat *Chris Greene* and launches new steel-hulled *Tom Greene*
- 1927:** Steamboat *Delta Queen* goes into service on Sacramento River in California, between San Francisco and Sacramento, in tandem with sister-boat *Delta King*
- 1929:** System of wicket dams on the Ohio River is finally completed (after being started in 1879!), with dedication by President Herbert Hoover
- 1935:** Greene Line Steamers puts steamboat *Gordon C. Greene* into vacation/passenger service
- 1946-47:** Captain Tom Greene of Greene Line Steamers purchases *Delta Queen* at auction in California, bringing it to Cincinnati via Panama Canal for career as cruise boat
- 1947:** Beloved Cincinnati-Coney Island steamboat *Island Queen* (II) bums at Pittsburgh while undergoing repairs