

Mississippi River

From Wikipedia, the free encyclopedia

Mississippi River	
River	
Country	United States
States	Minnesota , Wisconsin , Iowa , Illinois , Missouri , Kentucky , Tennessee , Arkansas , Mississippi , Louisiana
Tributaries	
- left	Ohio River , Illinois River
- right	Missouri River , Arkansas River
Cities	St. Paul, MN , St. Louis, MO , Memphis, TN , Baton Rouge, LA , New Orleans, LA
Source	Lake Itasca
- location	Itasca State Park , Clearwater County , MN
- elevation	1,475 ft (450 m)
- coordinates	 47°14′23″N 95°12′27″W
Mouth	Gulf Of Mexico
- location	Pilottown , Plaquemines Parish , LA
- elevation	0 ft (0 m)
- coordinates	 29°09′13″N 89°15′03″W
Length	2,340 mi (3,766 km)
Basin	1,151,000 sq mi (2,981,076 km²)
Discharge	for Baton Rouge, LA
- average	450,000 cu ft/s (12,743 m³/s) ^{<i>III</i>}

Map of the Mississippi River



The **Mississippi River**^[2] is the second longest [river](#) in the [United States](#), with a length of 2,340 miles (3,770 km)^[3] from its source in [Lake Itasca](#) in [Minnesota](#) to its mouth in the [Gulf of Mexico](#). The longest river in the United States is a Mississippi [tributary](#), the [Missouri River](#), measuring 2,540 miles (4,090 km).^[4]

The Mississippi River is part of the [Jefferson](#)-Missouri-Mississippi river system, which is the largest river system in North America and among the largest in the world: by length (3,900 miles (6,300 km)), it is the [fourth longest](#), and by its average discharge of 572,000 [cu ft/s](#) (16,200 [m³/s](#)), it is the [tenth largest river](#).

The name Mississippi is derived from the [Ojibwe](#) word *misi-zibi* ("Great River") or *gichi-zibi* ("Big River") at its headwaters.

Geography



Confluence of the Mississippi and Ohio Rivers at [Cairo, IL](#) (2006)

The Missouri River flows from the confluence of the [Jefferson](#), [Madison](#), and [Gallatin](#) and is the longest river in United States. Taken together, the Jefferson, the Missouri, and the Mississippi form the longest [river system](#) in [North America](#). If measured from the source of the Jefferson at [Brower's Spring](#), to the [Gulf of Mexico](#), the length of the Mississippi-Missouri-Jefferson combination is approximately 3,900 miles (6,300 km), making the combination the [4th longest river in the world](#). The uppermost 207 miles (333 km) of this combined river are called the *Jefferson*, the lowest 1,352 miles (2,176 km) are part of the *Mississippi*, and the intervening 2,341 miles (3,767 km) are called the *Missouri*.

The [Arkansas River](#) is the second longest tributary of the Mississippi River. Measured by water volume, the largest of all Mississippi tributaries is the [Ohio River](#).

The widest point of the Mississippi River is [Lake Winnibigoshish](#), near [Grand Rapids, Minnesota](#) at over 7 miles (11 km) across. Also of note is [Lake Onalaska](#), near [La Crosse, Wisconsin](#), where the river is over 4 miles (6.4 km) wide (created by [Lock and Dam No. 7](#)) and [Lake Pepin](#) at more than two miles (3 km) wide.^[5] However, the first two areas are lakes or reservoirs rather than free flowing water. In other areas where the Mississippi is a flowing river (other than Lake Pepin), it exceeds one mile (1.6 km) in width in several places in its lower course.

Beginning with its source at Lake Itasca to Saint Louis Missouri, the Mississippi's flow is moderated by 43 dams. Fourteen of these dams are located above Minneapolis Minnesota in the Headwaters region and serve multiple purposes including power generation and recreation. The remaining 29 dams beginning in downtown Minneapolis all contain locks and were constructed to permit commercial navigation of the upper river. Taken as a whole these 43 dams significantly shape the geography and influence the ecology of the upper river. Beginning just below Saint Paul Minnesota and continuing throughout the upper and lower river, the Mississippi is further

controlled by thousands of wing dikes that moderate the river's flow in order to maintain an open navigation channel and prevent the river from eroding its banks.

The Mississippi River runs through 10 [states](#) and was used to define portions of these states' borders. The middle of the riverbed at the time the borders were established was the line to define the borders between states.^{[6][7]} The river has since shifted, but the state borders of [Wisconsin](#), [Iowa](#), [Illinois](#), [Missouri](#), [Kentucky](#), [Arkansas](#), [Tennessee](#), and [Mississippi](#) have not changed; they still follow the former bed of the Mississippi River as of their establishment.

The river is divided into the [upper Mississippi](#), from its source south to the Ohio River, and the [lower Mississippi](#), from the Ohio to its mouth near [New Orleans, Louisiana](#).

Upper Mississippi River

Main article: [Upper Mississippi River](#)



The source of the Mississippi River at Lake Itasca (2004)

The upper Mississippi is divided into three sections: the headwaters, from the source to [Saint Anthony Falls](#); a series of man-made lakes between Minneapolis and [St. Louis, Missouri](#); and the middle Mississippi, a relatively free-flowing river downstream of the confluence with the Missouri River at St. Louis.

Source

The source of the Mississippi River is Lake Itasca, 1,475 ft (450 m) above sea level in [Itasca State Park](#) located in [Clearwater County, Minnesota](#). The name "Itasca" is a combination of the last four letters of the Latin word for truth (*veritas*) and the first two letters of the Latin word for head (*caput*).

The uppermost lock and dam on the Mississippi River is the Upper St. Anthony Falls Lock and Dam in [Minneapolis, Minnesota](#). Above the dam, the river's elevation is 799 feet (244 m). Below the dam, the river's elevation is 750 feet (230 m). This 49-foot (15 m) drop is the largest of all the Mississippi River locks and dams. The origin of the dramatic drop is a waterfall preserved adjacent to the lock under an apron of concrete. [St. Anthony Falls](#) is the only true waterfall on the entire Mississippi River. The water elevation continues to drop steeply as it passes through

the gorge carved by the waterfall. By the time the river reaches [St. Paul, Minnesota](#), below Lock and Dam #1, it has dropped more than half its original elevation and is 687 feet (209 m) above sea level. From St. Paul to St. Louis Missouri the river elevation falls much more slowly and is controlled and managed as a series of pools created by 26 locks and dams.^[8] From St. Louis to the Ohio River confluence the Mississippi free falls a total of 220 feet over a distance of 180 miles for an average rate of 1.2 feet per mile. At the Ohio River confluence the Mississippi is 315 feet above sea level.

Tributaries

The Mississippi is joined by the [Minnesota River](#) south of the [Twin Cities](#), the [St. Croix River](#) near [Prescott, Wisconsin](#), the [Wisconsin River](#) in [Prairie du Chien, Wisconsin](#), the [Iowa River](#) near [Wapello, Iowa](#), the [Skunk River](#) south of [Burlington, Iowa](#), the [Des Moines River](#) in [Keokuk, Iowa](#), the [Illinois River](#) and the Missouri River near St. Louis, and by the Ohio River at [Cairo, Illinois](#).

Lower Mississippi River

See also: [Mississippi River Delta](#)

Major sub-tributaries include the [Tennessee River](#) (a tributary of the Ohio River) and the [Platte River](#) (a tributary of the Missouri River). The [Arkansas River](#) joins the Mississippi in southeastern [Arkansas](#). The Yazoo River meets the Mississippi at Vicksburg. The [Atchafalaya River](#) in [Louisiana](#) is a major [distributary](#) of the Mississippi.

Cities along the river

The cities below have either historic significance or cultural lore connecting them to the Mississippi River. They are ordered from the beginning of the river to its end.



Community of boathouses on the Mississippi River in [Winona, MN](#) (2006)



In Minnesota, the Mississippi River runs through the [Twin Cities](#) (2007)



The Mississippi River just north of St. Louis (2005)

- [Bemidji, Minnesota](#)
- [Little Falls, Minnesota](#)
- [Saint Cloud, Minnesota](#)
- [Minneapolis, Minnesota](#)
- [St. Paul, Minnesota](#)
- [Winona, Minnesota](#)
- [La Crosse, Wisconsin](#)
- [Prairie du Chien, Wisconsin](#)
- [Dubuque, Iowa](#)
- [Clinton, Iowa](#)
- [Bettendorf, Iowa](#)
- [Davenport, Iowa](#)
- [Rock Island, Illinois](#)
- [Moline, Illinois](#)
- [Muscatine, Iowa](#)
- [Burlington, Iowa](#)
- [Fort Madison, Iowa](#)
- [Nauvoo, Illinois](#)
- [Keokuk, Iowa](#)
- [Quincy, Illinois](#)
- [Hannibal, Missouri](#)
- [Warsaw, Illinois](#)
- [Alton, Illinois](#)
- [St. Louis, Missouri](#)

- [Ste. Genevieve, Missouri](#)
- [Cape Girardeau, Missouri](#)
- [Caruthersville, Missouri](#)
- [Cairo, Illinois](#)
- [New Madrid, Missouri](#)
- [Columbus, Kentucky](#)
- [Hickman, Kentucky](#)
- [Reverie, Tennessee](#)
- [Memphis, Tennessee](#)
- [Tunica, Mississippi](#)
- [Helena-West Helena, Arkansas](#)
- [West Memphis, Arkansas](#)
- [Greenville, Mississippi](#)
- [Vicksburg, Mississippi](#)
- [Natchez, Mississippi](#)
- [Baton Rouge, Louisiana](#)
- [New Orleans, Louisiana](#)
- [Pilottown, Louisiana](#)
- [La Balize, Louisiana](#) (historical)

Bridge crossings

See also: [List of crossings of the Upper Mississippi River](#) and [List of crossings of the Lower Mississippi River](#)

The first bridge across the Mississippi River was built in 1855. It spanned the river in Minneapolis where the current [Hennepin Avenue Bridge](#) is located.^[9]

The first railroad bridge across the Mississippi was built in 1856. It spanned the river between [Arsenal Island](#) at [Rock Island, Illinois](#), and [Davenport, Iowa](#). Steamboat captains of the day, fearful of competition from the railroads, considered the new bridge "a hazard to navigation". Two weeks after the bridge opened, the steamboat *Effie Afton* rammed part of the bridge and started it on fire. Legal proceedings ensued, with [Abraham Lincoln](#) defending the railroad. The lawsuit went to the [Supreme Court of the United States](#) and was eventually ruled in favor of the railroad.

Below is a general overview of bridges over the Mississippi which have notable engineering or landmark significance with its city. They are ordered from the source to the mouth.



The [Dubuque-Wisconsin Bridge](#) connecting [Dubuque, IA](#) and [Grant County, WI](#) (2004)

- [Stone Arch Bridge](#) - a former [Great Northern Railroad](#) (now pedestrian) bridge in Minneapolis.
- [Interstate 35W Mississippi River Bridge](#) - This bridge collapsed catastrophically on August 1, 2007, killing 13 and injuring over 100. It was replaced by the [St. Anthony Bridge](#), which opened in September 2008, ahead of schedule and on budget.
- [I-90 Mississippi River Bridge](#), connecting [La Crosse, Wisconsin](#) to [Winona County, Minnesota](#) located just south of [Lock and Dam No. 7](#).
- [Black Hawk Bridge](#), connecting [Lansing, Allamakee County, Iowa](#) to rural [Crawford County, Wisconsin](#), locally referred to as the Lansing Bridge and documented in the [Historic American Engineering Record](#).
- [Julien Dubuque Bridge](#) - A bridge connecting [Dubuque, Iowa](#) and [East Dubuque, Illinois](#), that is listed in the [National Register of Historic Places](#).
- [Savanna-Sabula Bridge](#), a truss bridge and causeway crossing the Mississippi River and connecting the city of [Savanna, Illinois](#) with the island city of [Sabula, Iowa](#). The bridge carries U.S. Highway 52 over the river. It is also the terminus of both Iowa Highway 64 and Illinois Route 64. Added to the [National Register of Historic Places](#) in 1999 as structure #99001033.
- [Interstate 74 Bridge](#) connecting [Moline, Illinois](#), to [Bettendorf, Iowa](#), is a twin suspension bridge, also known historically as the Iowa-Illinois Memorial Bridge.
- [Rock Island Government Bridge](#) connecting [Rock Island, Illinois](#), to [Davenport, Iowa](#). Located just southwest of the site of the first railroad bridge across the Mississippi River, it is one of only two bridges in the world with two sets of railroad tracks above the auto lanes. It is co-located with Lock and Dam #15, the largest [roller dam](#) in the world.
- [Rock Island Centennial Bridge](#) connecting Rock Island, Illinois, to Davenport, Iowa.
- [Norbert F. Beckey Bridge](#) connecting [Muscatine, Iowa](#), to [Rock Island County, Illinois](#), became the country's first bridge to be illuminated with [light-emitting diode](#) lights decoratively illuminating the facade of the bridge.
- [Great River Bridge](#) - [cable-stayed bridge](#), connecting [Burlington, Iowa](#), to [Gulf Port, Illinois](#).
- [Santa Fe Bridge](#) - in [Fort Madison, Iowa](#), the largest double-deck swing-span bridge in the world. It is the last operating swing bridge over the Mississippi River for automobile traffic and is listed in the National Register of Historic Places.

- Quincy [Bayview Bridge](#) - cable-stayed bridge connecting [Quincy, Illinois](#), and [West Quincy, Missouri](#), via westbound US Highway 24. Eastbound traffic into Quincy is served by the older [Quincy Memorial Bridge](#).



The [Stone Arch Bridge](#), the [Third Avenue Bridge](#), and the [Hennepin Avenue Bridge](#), in [Minneapolis, MN](#) (2004)

- [Clark Bridge](#) also known as the *Super Bridge* as the result of an appearance on PBS program [Nova](#). This cable-stay bridge constructed in 1994 connects [Alton, Illinois](#), to Black Jack, Missouri. It is the northernmost river crossing in the St. Louis metropolitan area and is named after explorer [William Clark](#).
- [Chain of Rocks Bridge](#) - A bridge on the northern edge of St. Louis; famous for a 22-degree bend halfway across and the most famous alignment of Historic [U.S. Route 66](#) across the Mississippi.
- [Eads Bridge](#) - A bridge connecting St. Louis and [East St. Louis, Illinois](#); the first major steel bridge in the world, and also a National Historic Landmark. This bridge now carries the [St. Louis MetroLink](#) light rail system.
- [Chester Bridge](#) - The bridge that connects [Chester, Illinois](#), to Missouri and eventually [Perryville, Missouri](#). The bridge has been struck at least twice by [tornadoes](#).
- [Hernando de Soto Bridge](#) - carries [Interstate 40](#) to connect [Memphis, Tennessee](#) and [West Memphis, Arkansas](#); listed in [Guinness Book of World Records](#) for its unique structural "letter" shape.
- [Frisco Bridge](#) - was the first crossing of the Lower Mississippi and the longest cantilever truss steel railroad bridge in North America when it opened on May 12, 1892. It connects Memphis and West Memphis and is listed as a Historic Civil Engineering Landmark.
- [Memphis & Arkansas Bridge](#) - the longest [Warren truss](#)- style bridge in the United States which carries [Interstate 55](#) to connect Memphis and West Memphis; also listed on the National Register of Historic Places.
- [Huey P. Long Bridge](#) - [Jefferson Parish, Louisiana](#), the first Mississippi River span built in Louisiana.
- [Crescent City Connection](#) - connects the east and west banks of [New Orleans, Louisiana](#); the 5th-longest [cantilever bridge](#) in the world.

Watershed

The Mississippi River has the third largest [drainage basin](#) (or *catchment*) in the world, exceeded in size only by the watersheds of the [Amazon River](#) and [Congo River](#). It drains 41% of the 48 [Continental United States](#). The basin covers more than 1,245,000 sq mi (3,225,000 km²), including all or parts of 31 states and two [Canadian](#) provinces. The drainage basin empties into the Gulf of Mexico.



Mississippi Watershed (2005)

Major tributaries of the Mississippi:

- [Big Black River](#) in Mississippi
- [Yazoo River](#) in Mississippi
- [Red River](#) in Louisiana
- [White River](#) in Arkansas
- [Arkansas River](#) in Arkansas
- [Ohio River](#) in Kentucky
- [Big Muddy River](#) in Illinois
- [Kaskaskia River](#) in Illinois
- [Missouri River](#) in Missouri
- [Illinois River](#) in Illinois
- [Des Moines River](#) in Iowa
- [Skunk River](#) in Iowa
- [Iowa River](#) in Iowa
- [Rock River](#) in Illinois
- [Maquoketa River](#) in Iowa
- [Wapsipinicon River](#) in Iowa
- [Wisconsin River](#) in Wisconsin
- [Chippewa River](#) in Wisconsin
- [St. Croix River \(Wisconsin-Minnesota\)](#) in Minnesota And Wisconsin

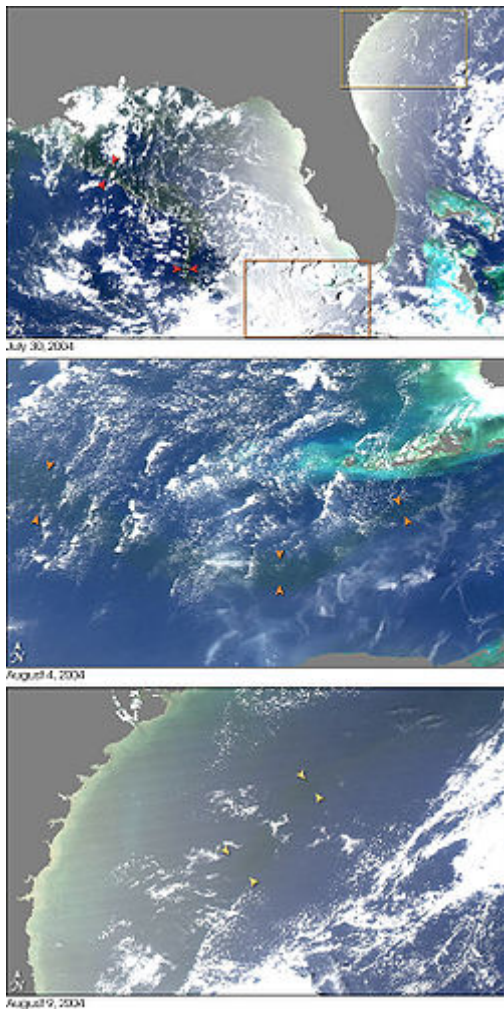
- [Minnesota River](#) in Minnesota
- [Crow River](#) in Minnesota

Drainage area

The Mississippi River drains most of the area between the [Rocky Mountains](#) and the [Appalachian Mountains](#), except for the areas drained to the [Hudson Bay](#) via the [Red River of the North](#), by the [St. Lawrence River](#) and the [Great Lakes](#), the [Rio Grande](#) (and numerous other rivers in [Texas](#)), the [Alabama River-Tombigbee River](#), and the [Chattahoochee River-Appalachicola River](#).

The Mississippi River empties into the Gulf of Mexico about 100 miles (160 km) downstream from New Orleans. Measurements of the length of the Mississippi from Lake Itasca to the Gulf of Mexico vary somewhat, but the [United States Geological Survey](#)'s number is 2,340 miles (3,770 km). The retention time from Lake Itasca to the Gulf is about 90 days.^[10]

Outflow



Sequence of NASA [MODIS](#) images showing the outflow of fresh water from the Mississippi (arrows) into the Gulf of Mexico (2004)

Fresh river water flowing from the Mississippi into the Gulf of Mexico does not mix into the salt water immediately. The images from NASA's [MODIS](#) to the right show a large plume of fresh water, which appears as a dark ribbon against the lighter-blue surrounding waters.

The images demonstrate that the plume did not mix with the surrounding sea water immediately. Instead, it stayed intact as it flowed through the Gulf of Mexico, into the [Straits of Florida](#), and entered the [Gulf Stream](#). The Mississippi River water rounded the tip of [Florida](#) and traveled up the southeast coast to the latitude of [Georgia](#) before finally mixing in so thoroughly with the ocean that it could no longer be detected by MODIS.

Discharge

The Mississippi river discharges at an annual average rate of between 200,000 and 700,000 [cu ft/s](#) (7,000 to 20,000 [m³/s](#)).^[11] Although it is the 5th largest river in the world by volume, this flow is a mere fraction of the output of [the Amazon](#), which moves nearly 7 million [cu ft/s](#) (200,000 [m³/s](#)) during wet seasons. On average the Mississippi has only 9% the flow of the Amazon River but is nearly twice that of the [Columbia River](#) and almost 6 times the volume of the [Colorado River](#).

History

Course changes



View along the former riverbed at the [TN/AR](#) state line near [Reverie, TN](#) (2007)

The [Illinoian Glacier](#), about 300,000 to 132,000 years before present, blocked the Mississippi near Rock Island, Illinois, diverting it to its present channel farther to the west, the current western border of Illinois.

The [Hennepin Canal](#) roughly follows the ancient channel of the Mississippi downstream from Rock Island to Hennepin. South of [Hennepin, Illinois](#), the current [Illinois River](#) is actually

following the ancient channel of the Mississippi River to [Alton, Illinois](#), before the Illinoian glaciation.

Other changes in the course of the river have occurred because of [earthquakes](#) along the [New Madrid Fault Zone](#), which lies between Memphis and St. Louis. Three earthquakes in 1811 and 1812, estimated at approximately 8 on the [Richter Scale](#), were said to have temporarily reversed the course of the Mississippi. The settlement of [Reverie, Tennessee](#) was cut off from [Tipton County, Tennessee](#), during the 1811 and 1812 earthquakes and placed on the western side of the Mississippi River, the Arkansas side. These earthquakes also created [Reelfoot Lake](#) in Tennessee from the altered landscape near the river. The faulting is related to an [aulacogen](#) (geologic term for a failed rift) that formed at the same time as the Gulf of Mexico.

Through a natural process known as [delta switching](#) the lower Mississippi River has shifted its final course to the mouth of the Gulf of Mexico every thousand years or so. This occurs because the deposits of silt and sediment begin to clog its channel, raising the river's level and causing it to eventually find a steeper, more direct route to the Gulf of Mexico. The abandoned distributary diminishes in volume and forms what are known as [bayous](#). This process has, over the past 5,000 years, caused the coastline of south [Louisiana](#) to advance toward the Gulf from 15 to 50 mi (25 to 80 km). The currently active delta lobe is called the Birdfoot Delta, after its shape, or the Balize Delta, after [La Balize, Louisiana](#), the first French settlement at the mouth of the Mississippi.

See also: [Mississippi River Delta](#)

Native Americans+

Please help [improve this section](#) by expanding it. Further information might be found on the [talk page](#). *(May 2008)*

The area of the Mississippi valley was first settled by [Native American tribes](#) such as the [Ojibwa](#), the [Cheyenne](#), the [Mississippian Culture](#) and the [Chickasaw](#).

European exploration



Discovery of the Mississippi, [DeSoto](#) seeing the Mississippi River for the first time (1849)

On May 8, 1541, Spanish explorer [Hernando de Soto](#) became the first recorded [European](#) to reach the Mississippi River, which he called *Río del Espíritu Santo* ("River of the Holy Spirit"), in the area of what is now Mississippi. In [Spanish](#) the river is called *Río Misisipi*.^[12]

French explorers [Louis Joliet](#) and [Jacques Marquette](#) began exploring the Mississippi in the 17th century. Marquette traveled with a [Sioux](#) named *Ne Tongo* ("Big river" in [Sioux language](#)) in 1673. Marquette proposed calling it the *River of the Immaculate Conception*.

In 1682, [René Robert Cavelier, Sieur de La Salle](#) and [Henri de Tonty](#) claimed the entire Mississippi River Valley for France, calling the river *Colbert River* after [Jean-Baptiste Colbert](#) and the region *La Louisiane*, for [King Louis XIV](#). On March 2, 1699, [Pierre Le Moyne d'Iberville](#) rediscovered the mouth of the Mississippi, following the death of La Salle.^[13] The French built the small fort of [La Balise](#) there to control passage.

In 1718, about 100 miles (160 km) upriver, New Orleans was established along the river crescent by [Jean-Baptiste Le Moyne de Bienville](#), with construction patterned after the 1711 resettlement on Mobile Bay of [Mobile](#), the capital of French Louisiana at the time.

18th century

The [Treaty of Paris \(1763\)](#) gave the [Kingdom of Great Britain](#) rights to all land in the valley east of the Mississippi and [Spain](#) rights to land west of the Mississippi. Spain also ceded [Florida](#) to England to regain [Cuba](#), which the English occupied during the war. Britain then divided the territory into [East Florida](#) and [West Florida](#).

Article 8 of the [Treaty of Paris \(1783\)](#) states, "The navigation of the river Mississippi, from its source to the ocean, shall forever remain free and open to the subjects of Great Britain and the citizens of the United States." With this treaty, which ended the [American Revolution](#), Britain also ceded West Florida back to Spain to regain the [Bahamas](#), which Spain had occupied during the war. Spain then had control over the river south of 32°30' north latitude and, in what is

known as the Spanish Conspiracy, hoped to gain greater control of Louisiana and all of the west. These hopes ended when Spain was pressured into signing [Pinckney's Treaty](#) in 1795.

19th century

France reacquired 'Louisiana' from Spain in the secret [Treaty of San Ildefonso](#) in 1800. The United States bought the territory from France in the [Louisiana Purchase](#) of 1803. In 1815, the US defeated Britain at the [Battle of New Orleans](#), part of the [War of 1812](#), securing American control of the river.

So many settlers traveled westward through the Mississippi river basin, as well as settled in it, that Zadok Cramer wrote a guide book called [The Navigator](#) detailing the features and dangers and navigable waterways of the area. It was so popular that he updated and expanded it through 12 editions over a period of 25 years. [The Navigator \(1801 guide book\)](#)

Steamboat commerce

Main article: [Steamboats of the Mississippi](#)



Shifting [sand bars](#) made early navigation difficult.

[Mark Twain's](#) book [Life on the Mississippi](#) covered the [steamboat](#) commerce which took place from 1830 to 1870 on the river before more modern ships replaced the steamer. The book was published first in serial form in [Harper's Weekly](#) in seven parts in 1875. The full version, including a passage from the unfinished [Huckleberry Finn](#) and works from other authors, was published by James R. Osgood & Company in 1885.

The first steamboat to travel the full length of the Mississippi from the Ohio River to New Orleans was the *New Orleans* in December 1811. Its maiden voyage occurred during the series of [New Madrid earthquakes](#) in 1811–12.

Steamboat transport remained a viable industry (both in terms of passengers and freight) until the end of the first decade of the 20th century. Among the several Mississippi River system steamboat companies was the noted [Anchor Line](#), which from 1859 to 1898 operated a luxurious fleet of steamers between St. Louis and New Orleans.

Civil War

Battle of Vicksburg (ca. 1888)

The river played a decisive role in the [American Civil War](#). The [Union's Vicksburg Campaign](#) called for Union control of the lower Mississippi River. The Union victory at the [Battle of Vicksburg](#) in [Warren County, Mississippi](#) in 1863 was pivotal to the Union's final victory of the Civil War.

20th century

In the spring of 1927, the river broke out of its banks in 145 places during the [Great Mississippi Flood of 1927](#) and inundated 27,000 sq mi (70,000 km²) to a depth of up to 30 ft (10 m).

On October 20, 1976, the automobile [ferry *MV George Prince*](#) was struck by a ship traveling upstream as the ferry attempted to cross from [Destrehan, Louisiana](#), to [Luling, Louisiana](#). Seventy-eight passengers and crew died, only eighteen survived the accident.

In 1988, record low water levels provided an opportunity and obligation to examine the climax of the wooden-hulled age. The Mississippi fell to 10 feet (3.0 m) below zero on the Memphis gauge. Four and a half acres of water craft remains were exposed on the bottom of the Mississippi River at West Memphis, Arkansas. They dated to the late 19th to early 20th centuries. The State of Arkansas, the Arkansas Archeological Survey, and the Arkansas Archeological Society responded with a two-month data recovery effort. The fieldwork received national media attention as good news in the middle of a drought.^[14]

The [Great Flood of 1993](#) was another significant flood, primarily affecting the Mississippi above its confluence with the Ohio River at [Cairo, Illinois](#).

Two portions of the Mississippi were designated as [American Heritage Rivers](#) in 1997: the lower portion around Louisiana and Tennessee, and the upper portion around Iowa, Illinois, Minnesota and Missouri.

21st century



Campsite at the river in Arkansas

In 2002, [Slovenian](#) long-distance swimmer [Martin Strel](#) swam the entire length of the river, from Minnesota to Louisiana, over the course of 68 days.

In 2005, the Source to Sea Expedition (<http://sourcetosea.net>) paddled the Mississippi and [Atchafalaya](#) rivers to benefit the Audubon Society's Upper Mississippi River Campaign. ^{[15][16]}

On August 1, 2007, the [I-35W Mississippi River bridge](#) in Minneapolis collapsed during the evening rush hour.

Also in 2007, it was expected that more than 150 pleasure boats would travel down the river from Grafton to Cairo while participating in the [Great Loop](#), which is the circumnavigation of Eastern North America by water.

Recreation

Water Skiing



[Great River Road](#) in Wisconsin near [Lake Pepin](#) (2005)

The sport of [water skiing](#) was invented on the river in a wide region between Minnesota and Wisconsin known as [Lake Pepin](#). [Ralph Samuelson](#) of [Lake City, Minnesota](#), created and refined

his skiing technique in late June and early July 1922. He later performed the first water ski jump in 1925 and was pulled along at 80 miles per hour (128 [km/h](#)) by a Curtiss [flying boat](#) later that year.

National Parks

There are seven [National Park Service](#) sites along the Mississippi River. The [Mississippi National River and Recreation Area](#) is the National Park Service site dedicated to protecting and interpreting the Mississippi River itself. The other six National Park Service sites along the river are (listed from north to south): [Effigy Mounds National Monument](#), [Jefferson National Expansion Memorial](#) (AKA The Arch), [Vicksburg National Military Park](#), [Natchez National Historical Park](#), [New Orleans Jazz National Historical Park](#), and [Jean Lafitte National Historical Park and Preserve](#).

Navigation history

A clear channel is needed for the [barges](#) and other vessels that make the [mainstem](#) Mississippi one of the great commercial [waterways](#) of the world. The task of maintaining a navigation channel is the responsibility of the [U.S. Army Corps Of Engineers](#), which was established in 1802.^[17] Earlier projects began as early as 1829 to remove snags, close off secondary channels and excavate rocks and [sandbars](#).

Steamboats entered trade in the 1820s, so by the period of the 1830-1850 became the golden age of steamboats. As there were few roads or rails in the lands of the Louisiana Purchase river traffic was an ideal solution. Cotton, timber and food came down the river, as did Appalachia coal. The port of New Orleans boomed as it was the trans-shipment point to deep sea ocean vessels. As a result, the image of the twin stacked, wedding cake Mississippi steamer entered into American mythology. Steamers worked the entire route from the trickles of Montana, to the Ohio river; down the Missouri and Tennessee. To the main channel of the Mississippi. Only the arrival of the railroads in the 1880s did steamboat traffic diminish. Steamboats remained a feature until the 1920s. Most have been superseded by pusher tugs. A few survive as icons--the [Delta Queen](#) and the [River Queen](#) for instance.

A series of 29 [locks](#) and dams on the upper Mississippi, most of which were built in the 1930s, is designed primarily to maintain a 9 ft (2.7 m) deep channel for commercial [barge](#) traffic.^{[18][19]} The lakes formed are also used for recreational boating and fishing. The dams make the river deeper and wider but do not stop it. No flood control is intended. During periods of high flow, the gates, some of which are submersible, are completely opened and the dams simply cease to function. Below St. Louis, the Mississippi is relatively free-flowing, although it is constrained by numerous levees and directed by numerous [wing dams](#).



Barges on the **Mississippi River** near [Ste. Geneviève, Missouri](#).

19th century

Obstacles - Des Moines, Iowa/Illinois



The Lock & Dam at [Dubuque, IA](#) (2004)

In 1829, there were surveys of the two major obstacles on the upper Mississippi, the Des Moines Rapids and the Rock Island Rapids, where the river was shallow and the riverbed was rock. The Des Moines Rapids were about 11 mi (18 km) long and just above the mouth of the [Des Moines River](#) at [Keokuk, Iowa](#). The Rock Island Rapids were between [Rock Island](#) and [Moline, Illinois](#). Both rapids were considered virtually impassable.

In 1848, the [Illinois and Michigan Canal](#) was built to connect the Mississippi River to [Lake Michigan](#) via the [Illinois River](#) near [Peru, Illinois](#). In 1900, the canal was replaced by the [Chicago Sanitary and Ship Canal](#). The canal allowed [Chicago](#) to address specific health issues ([typhoid](#), [cholera](#) and other waterborne diseases) by sending its waste down the Illinois and Mississippi river systems rather than polluting its water source of Lake Michigan. The canal also provided a shipping route between the [Great Lakes](#) and the Mississippi.

The Army Corps of Engineers recommended the excavation of a 5 ft (1.5 m) deep channel at the [Des Moines Rapids](#), but work did not begin until after Lieutenant [Robert E. Lee](#) endorsed the project in 1837. The Corps later also began excavating the Rock Island Rapids. By 1866, it had become evident that excavation was impractical, and it was decided to build a canal around the Des Moines Rapids. The canal opened in 1877, but the Rock Island Rapids remained an obstacle.

In 1878, Congress authorized the Corps to establish a 4.5 ft (1.4 m) deep channel to be obtained by building wing dams which direct the river to a narrow channel causing it to cut a deeper channel, by closing secondary channels and by dredging. The channel project was complete when the Moline Lock, which bypassed the Rock Island Rapids, opened in 1907.

Canal - St. Paul, Minnesota

To improve navigation between St. Paul, Minnesota, and [Prairie du Chien, Wisconsin](#), the Corps constructed several dams on lakes in the headwaters area, including [Lake Winnibigoshish](#) and Lake Pokegama. The dams, which were built beginning in the 1880s, stored spring run-off which was released during low water to help maintain channel depth.

In 1907, Congress authorized a 6 foot (1.8 m) deep channel project on the Mississippi, which was not complete when it was abandoned in the late 1920s in favor of the 9 foot (2.7 m) deep channel project.

20th century



Tug *Holly J* near [Ste. Geneviève, Missouri](#).

Dam - Keokuk, Iowa

In 1913, construction was complete on a dam at [Keokuk, Iowa](#), the first dam below St. Anthony Falls. Built by a private power company to generate electricity, the Keokuk dam was one of the largest hydro-electric plants in the world at the time. The dam also eliminated the Des Moines Rapids.

Lock and Dam No. 1 & 2



Lock and Dam No. 2, [Hastings, MN](#) (2006)

[Lock and Dam No. 1](#) was completed in Minneapolis, Minnesota in 1917.

Lock and Dam No. 2 at [Hastings, Minnesota](#), was completed in 1930.

1927 flood

Main article: [Great Mississippi Flood of 1927](#)

Prior to the 1927 flood, the Corps' primary strategy was to close off as many side channels as possible to increase the flow in the main river. It was thought that the river's [velocity](#) would scour off bottom [sediments](#), deepening the river and decreasing the possibility of flooding.

The 1927 flood proved this to be so wrong that communities threatened by the flood began to create their own levee breaks to relieve the force of the rising river.

Rivers and Harbors Act - 1930

The Rivers and Harbors Act of 1930 authorized the 9 ft (2.7 m) channel project, which called for a navigation channel 9 ft (2.7 m) deep and 400 ft (120 m) wide to accommodate multiple-barge tows. ^{[20][21]}

This was achieved by a series of locks and dams, and by dredging. Twenty-three new locks and dams were built on the upper Mississippi in the 1930s in addition to the three already in existence.

Two new locks were built north of Lock and Dam No. 1 at [Saint Anthony Falls](#) in the 1960s, extending the [head of navigation](#) for commercial traffic by several miles, but few barges go past the [metropolis](#) of [Minneapolis-Saint Paul, Minnesota](#) today.

Late 20th century



Dam No. 27 is a low water rock dam creating a pool near [St. Louis, MO](#) (2006)



Soldiers of the [Missouri Army National Guard](#) sandbag the River in [Clarksville, Missouri](#), June 2008, following flooding.

Until the 1950s, there was no dam below Lock and Dam 26 at [Alton, Illinois](#). Lock and Dam 27, which consists of a low-water dam and an 8.4 mi (13.5 km) long canal, was added in 1953 just below the confluence with the Missouri River, primarily to bypass a series of rock ledges at St. Louis. It also serves to protect the St. Louis city water intakes during times of low water.

U.S. government scientists determined in the 1950s that the Mississippi River was starting to switch to the [Atchafalaya River](#) channel because of its much steeper path to the Gulf of Mexico. Eventually the Atchafalaya River would capture the Mississippi River and become its main channel to the Gulf of Mexico, leaving New Orleans on a side channel. As a result, the [U.S. Congress](#) authorized a project called the [Old River Control Structure](#), which has prevented the Mississippi River from leaving its current channel that drains into the Gulf via New Orleans.

Because the large scale of high-energy water flow threatened to damage the structure, an auxiliary flow control station was built adjacent to the standing control station. This [US\\$300 million](#) project was completed in 1986 by the [U.S. Army Corps Of Engineers](#).

Beginning in the 1970s, the Corps applied [hydrology transport models](#) to analyze flood flow and water quality of the Mississippi.

Dam 26 at [Alton, Illinois](#), which had structural problems, was replaced by the Mel Price Lock and Dam in 1990. The original Lock and Dam 26 was demolished.

21st century

Main floodways

The Corps now actively creates floodways to divert periodic water surges into backwater channels and lakes. The main floodways are the Birds Point-New Madrid Floodway, the [Morganza Floodway](#), which directs floodwaters down the [Atchafalaya River](#) and the [Bonnet Carré Spillway](#) which directs water to [Lake Pontchartrain](#).

The [Old River Control Structure](#) also serve as a major floodgates that can be opened to prevent flooding. Some of the pre-1927 strategy is still in use today, the Corps actively cuts the necks of [horseshoe bends](#), allowing the water to move faster and reducing flood heights.

Arts and culture

Literature



On The Mississippi, music sheet cover for a 1912 song

[William Faulkner](#) uses the Mississippi River and Delta as the setting for many hunts throughout his [novels](#). It has been proposed that in Faulkner's famous story, [The Bear](#), young Ike first begins his transformation into a man, thus relinquishing his birthright to land in [Yoknapatawpha County](#) through his realizations found within the woods surrounding the Mississippi River.

Many of the works of [Mark Twain](#) deal with or take place near the Mississippi River. One of his first major works, [Life on the Mississippi](#), is in part a history of the river, in part a memoir of Twain's experiences on the river, and a collection of tales that either take place on or are associated with the river. The Mississippi River was noted for the number of bandits which called its islands and shores home, including [John Murrell](#) who was a well-known murderer, horse stealer and slave "re-trader". His notoriety was such that author Twain devoted an entire chapter to him in [Life on the Mississippi](#), and Murrell was rumored to have an island headquarters on the river at Island 37. Twain's most famous work, [Adventures of Huckleberry Finn](#), is largely a journey down the river. The novel works as an episodic meditation on American culture with the river having multiple different meanings including independence, escape, freedom, and adventure.

[Herman Melville](#)'s novel [The Confidence-Man](#) portrayed a [Canterbury Tales](#)-style group of steamboat passengers whose interlocking stories are told as they travel down the Mississippi River. The novel is written both as cultural satire and a metaphysical treatise. Like [Huckleberry Finn](#), it uses the Mississippi River as a metaphor for the larger aspects of American and human identity that unify the otherwise disparate characters. The river's fluidity is reflected by the often shifting personalities and identities of Melville's "confidence man".

The second chapter of [Don Rosa](#)'s famous comic book [The Life and Times of Scrooge McDuck](#) is named "The Master of the Mississippi", it is set on the Mississippi River. Scrooge works here for his Uncle Angus "Pothole" McDuck on a wheel steamer and has his first encounter with [The Beagle Boys](#).

In Langston Hughes' poem, "The Negro Speaks of Rivers" the Mississippi River is mentioned.

Music

The stage and movie musical [Show Boat](#)'s central musical piece is the [spiritual](#)-influenced ballad "[Ol' Man River](#)".

[Ferde Grofe](#) composed a set of movements for symphony orchestra based on the lands the river travels through in his "[Mississippi Suite](#)".

The [Johnny Cash](#) song "Big River" is about the Mississippi River, and about drifting the length of the river to pursue a relationship that fails.

"Mississippi Queen" by [Mountain](#) makes reference to the river.

The song "[When the Levee Breaks](#)", made famous in the version performed by [Led Zeppelin](#) on the album [Led Zeppelin IV](#), was composed by [Memphis Minnie](#) McCoy in 1929 after the [Great Mississippi Flood](#) of 1927. Another song about the flood was "Louisiana 1927" by [Randy Newman](#) for the album [Good Old Boys](#).

"[Moon River](#)" from the 1961 film [Breakfast at Tiffany's](#) refers to the Mississippi River.

The Mississippi River has a certain historical tie to the music genre Jazz. Author [DuBose Heyward](#) states in one of his books that the music genre Jazz has taken its name from a black itinerant musician called [Jazbo Brown](#). Around the turn of the 19th century the semi-legendary [Jazbo Brown](#) is said to have played on boats (as suggested in "[Jazzbo Brown from Memphis Town](#)", performed by [Bessie Smith](#)) and along the Mississippi River.

[The Hold Steady](#) frequently make references to the river in their songs.

Popular culture

The Mississippi River is a commonly cited natural boundary for purposes of dividing the United States into eastern and western sections, with places often being described as east or west "of the Mississippi".