

THE FAST BOATS

Jerry  Canavit

Whenever riverboat buffs gather for conversation, one question that always seems to provide fuel for debate is - which paddlewheel steamboat was the fastest? It is certainly a fascinating question and one that is usually addressed with interest and passion. Although much has been written about the legendary fast boats, never, to my knowledge, has there been a single vessel that has gained a real consensus as being the ultimate nautical greyhound. It seemed peculiar to me why this was so - after all, one boat had to be the fastest, right?

Armed with this notion, I began research that I was sure would enable me to determine the fastest vessel. I plunged into all my books and periodicals, accessed others from inter-library loan, wrote letters to museums, historical societies and persons much more knowledgeable than I, certain that I would be able to determine which was the fastest paddlewheel steamer to ever run on the waters of the United States.

At first glance, it seemed that making this determination wouldn't be such a difficult task. But, indeed, with closer examination, it became apparent that I had opened a real can of worms.

Unfortunately it wouldn't be nearly as simple as I had thought, for time and distance comparisons alone would not provide enough information to make any valid conclusions. A number of other variable factors had to be considered and examined.

Tide and Current. Many fast riverboat trips were assisted by current or tide, which made the boats apparently faster. Conversely, against these forces their speed over a distance decreased. Further complicating matters were narrow and fast

channels (chutes) and reverse eddies which amplified these conditions to an even greater degree.

An example of these forces at work is the 1896 run of the Ohio River sidewheeler CITY OF LOUISVILLE. On April 5th of that year the CITY OF LOUISVILLE made 22.38 miles-per-hour downstream on the 133.5 miles between Cincinnati and Louisville. She returned that same day at 13.82 miles-per-hour; a difference of 8.36 and an average for both directions of 17.08.

Performance records of the same vessel operating in different waters are uncommon, but those we have show how their speed varied in different environments.

The ALVIN ADAMS, a fast side-wheeler in the Louisville-Wheeling trade, made many upstream trips with better than 10 miles-per-hour averages on the swift upper Ohio. Her times were comparable to those of her quickest contemporaries (i.e. MESSENGER NO.2, TELEGRAPH NO.2, and BUCKEYE STATE). In the New Orleans to Baton Rouge trade on the more sedate lower Mississippi, she consistently averaged about 16 miles-per-hour, equal to the fastest steamers in those waters.

Determining the actual strength of tide and current during trials of speed were pretty much subjective and were generally made by the captain and were not subject to verification; adding yet another variable factor. The ideal condition, of course, would be to have no influences to aid or hinder the vessels' progress, however, "through-the-water" trials were extremely rare.

Wind. In some cases, the direction of the wind and its velocity during a trial of speed are documented - for others they are not. It must be noted too, that the wind could have a different effect on different boats as the design of superstructure and housing varied from vessel to vessel. Obviously, a tailwind was of more assistance than a headwind.

Load. The weight of a vessel certainly had an effect on its speed through the water. A boat traveling with a full load would place more wetted

surface against the water, causing more resistance than a boat running light; therefore, the more area of wetted surface traveling through the water, the greater the resistance.

Some vessels made great speed during their normal course of operation, while others were “groomed” for making speed. The ROBT. E. LEE was reported to have made considerable preparation in this regard with its famous race in 1870 with the steamer NATCHEZ, as did the sternwheeler HASSALO in her record-breaking dash down the Columbia in 1899. In both cases, passengers and freight were refused, hand-picked fuel was used and, in the case of the HASSALO, part of the superstructure was even altered to decrease wind-resistance. Freight or cargo could be favorably distributed or “trimmed” to allow the vessel to sit in a manner that ensured the most efficient progress through the water. It was generally felt that a vessel running with a level bottom would run faster than one with either the head or stern down, but this was not true with every boat. All boats behaved differently and the best trim was learned by testing and experience.

Since boats with light loads tended to run quicker than those burdened with heavier ones, it's not hard to imagine why many of the record-setting trips by the fast Mississippi River packets were made between April and May when upstream freight activity was at its lightest.

Landings. Most lengthy trips were never made non-stop from point to point, and since most trips were made in the pursuit of commerce, landings had to be made to take on and discharge passengers and freight. This activity was certainly detrimental to high average speeds (especially on the Mississippi) and presents a variable that is, in many cases, beyond verification. The times lost in making landings was usually kept by the captain and, in some cases, some “claimed” deductions were so sizable that their credibility must be suspect. In other cases, the number and length of landings are just not available and this lost time

must be factored into the overall average speeds, even though the actual running times were faster.

Distance. Probably the most difficult fact to determine is the “actual distance” covered by a vessel. On a river, up the middle of the channel would be one method of calculating distance, however, the channel distance is usually always longer than the actual river distance, and since boats did not always follow the channel, this is not a dependable measurement. Making landings also resulted in additional distance. So did the act of passing other vessels en route. One pilot might run a course in a particular way while another might be able to run a different line and save distance. Boats of lighter draught might actually run a shorter distance on the same trip as a boat of deeper draught simply because they could run closer-in. In numerous contests on Puget Sound in 1890-91 between the steamers GREYHOUND and BAILEY GATZERT, the GREYHOUND, with its lighter draught, was able to reduce the 28-mile distance between Tacoma and Seattle by nearly a mile simply because she could run two points closer to the shore when approaching Seattle harbor. Indeed, skillful and steady piloting counted for a lot too, for the longer a rudder was held straight, the less the resistance and the better the speed.

On the Mississippi River, distance as a variable is well illustrated. On this great body of water, the distance between major ports over time has diminished through natural and man-made cut-offs. For example, the distance in 1870 from New Orleans to St. Louis at the time of the ROBT. E. LEE/NATCHEZ contest was about 1218 miles. Today it is less than 1049 miles. The actual number of miles here makes very little difference as, even though the distance traveled is less in terms of miles, there has been hardly any change at all in sea level elevation between these two ports. Because of this, the river must still drop its given and constant fall to the sea. This simply means - the more miles the river travels, the more sluggish the current; the less miles, the swifter the current. A boat today trying to match

the time of the ROBT. E. LEE'S 1218 mile trip on this course in 1870 would have to run about 170 fewer miles, but would have to encounter a greater current to compensate for the lesser distance. The average miles-per-hour speed for the lesser distance would be less than for the greater distance, even though the actual running times were the same. More simply put, if the ROBT. E. LEE could run the same race today as she ran in 1870, making the port to port time of 3 days, 18 hours, 14 minutes, she would do so at an average speed of about 11.60 miles-per-hour for the 1049 mile distance instead of the 13.50 miles-per-hour she actually averaged for the 1218 mile trip.

Paddlewheel Efficiency. The design of the paddlewheel had some effect on the vessels speed through the water. Fulton found that water encountered less resistance on the side of the hull than at the stern, so sidewheels should be more efficient. I am told, however, that quantifying this is very difficult. The diameter/size of the paddlewheel has less to do with speed than does how the buckets interface with the water. The diameter means little if the wheel is "buried" in the water. A good example of this is the sternwheeler DELTA QUEEN. The QUEEN'S wheel has a diameter of 28-feet but it normally runs too deeply in the water; usually having 6-7 planks submerged. In comparison, the sternwheeler NATCHEZ' wheel is 25-feet in diameter but runs with only 3-4 planks submerged. The principle here is the same as rowing a yawl: If the oars are too deeply submerged there is very little speed - if they "skim" the water, there is great speed.

Feathering paddlewheels, used on later side-wheelers, were more efficient in terms of slip over wheel and actual water lifted (estimates range from 10 - 28% more efficient), but performed less efficiently in terms of durability and additional weight. The staggered paddlewheel used on some sternwheel steamers probably did little to make

them more efficient, however, they did tend to make their operation somewhat smoother. A few vessels were equipped with center-mounted paddlewheels. These were primarily ferryboats and were not intended for speed, although some of them could move along at a good clip. The advantage to the center-mounted wheel was protection from floating hazards and stability in rough water. So, were side-wheels more conducive to speed than sternwheels? Probably yes, however, there were a number of brilliant exceptions.

Timing Methods. During the period of time when most steamboats were running, there was really no uniform way of telling accurate time, as each city set its clocks to local solar time. This in itself presented timing problems, however, it was compounded by the fact that many timepieces during that period simply did not keep accurate time. This was especially evident in the much contested speed trials of the steamers ECLIPSE and A.L. SHOTWELL in 1853 on the Mississippi River, when there was such a discrepancy in the timing for the 1455-mile trip that the matter of which vessel actually made the faster trip was never decided with certainty.

Shallow Water vs Deep Water.

Bernoulli theorized that when a hull traveling through water passes over a shallow reef or plane, a depression or vacuum-like resistance is created that adds resistance to the transit. More simply put, a boat traveling in shallow water would encounter more resistance than one traveling in deep water. A modern-day example of this theory in action is the annual race between the sternwheelers BELLE OF LOUISVILLE and DELTA QUEEN on the Ohio River. The common belief is that the DELTA QUEEN is inherently the faster boat. The truth is that this is not so, for the BELLE has more horsepower per ton than the QUEEN. In shallow water with a light load, the BELLE would probably win

every race, for Bernoulli's theory would hamper the QUEEN. In deep water it would be a pretty good race every time, however, neither of these boats can really be considered as fast. The sternwheel NATCHEZ, currently running in New Orleans, can run away from both of them, and the NATCHEZ, although a very quick vessel, wouldn't make it on our list of "fast boats."

Although sidewheelers could operate on no more water than sternwheelers, shallow water did tend to make them labor or "run-off" toward deeper water when they came too close to a sandbar or the edge of the channel - a characteristic not shared by their sternwheel counterparts.

Hull Design. The shape of a riverboat's hull had much to do with how fast she could pass through the water. A "fast" hull would have a very pointed bow and a streamlined shape and be able to pass through the water with a minimum amount of resistance and drag. Riverboats, however, were not built solely for the purpose of running fast. Reality dictated that the hull design be an effective compromise of speed, carrying capacity and economy of operation. It should also be specifically suited for the area and conditions for which it was intended to operate. The hull on a boat intended for operation on the Missouri River would look very different from one designed for use on the Lower Mississippi. Conversely, the hull of Mississippi River steamer would have been at a disadvantage on the Columbia River, as they were constructed too lightly for use on those rough waters. Good contour lines and a high ratio of length to width were also pretty good indicators of a hull's speed.

Limber vs Stiff Hulls. In most circles of knowledgeable old steamboat men, especially on the Western rivers, a "limber" steamboat was regarded as the fastest one. For some reason, when the tension on the supports for the hulls of these boats were lessened, allowing the hulls of

these boats to work and strain freely, the faster they seemed to move through the water. There is probably a scientific reason for this, but it is a fact that many of the holders of the fastest speed records were wooden-hulled riverboats that ran through the water like a piece of rubber. When I once quizzed someone very knowledgeable about such matters, he replied "I have always thought that the limber-hull for speed business is an old wives' tale. On the other hand I've met some pretty smart old wives."

The Sum of the Parts. Why do some boats run faster than others - even when they are similarly equipped? This is a real puzzle. Perhaps it is the result of a synergism of many nuances working together to produce exceptional performance. A good example of this is illustrated by a comparison of two Upper Mississippi sidewheelers operated by the Minnesota Packet Company in the late 1850's. The KEY CITY and the ITASCA were identical twins. Their lines and hull (length, breadth and depth of hold) were the same; both had boilers of the same number and size and their engines were so identical that their parts were interchangeable; yet the KEY CITY could run from one to three miles-per-hour faster than the ITASCA with the same pilots at the wheel. Why was this so? It was certainly an interesting topic for discussion by rivermen, but the experts could never agree, and, the truth is, they probably just didn't know.

Favoritism and Other Variables.

Steamboat men were usually a prejudiced lot and much more convincing in their arguments and opinions than the average "interested" person. Debates could address such topics as steam pressure, fuel additives and the nuances of engine room crew proficiency. Older steamboatmen were sometimes so impressed with a steamboat in their youth, that their boat became a paragon that grew more with each passing year and they tended to regard newer boats as "johnny-come-latelys" whose performances could

never match those of their old favorite.

Many areas of the country had their favorite boat and tended to support their vessel's accomplishments, at times beyond all reasoning. Sometimes races were held to determine speed supremacy; often backed by lofty wagers and occasionally at some risk to the traveling public. The winners of these races usually settled the argument as to which boat was the faster in that particular situation, but what of other boats in other areas of the country that would never have a chance to race under nearly similar conditions? How would the ROBT. E. LEE fare against the MARY POWELL in a sprint from New York to Albany? How would the CHRYSOPO-LIS measure up against the TELEPHONE in a wide-open run from Sacramento to San Francisco? Would the T.J. POTTER be able to keep up with the CITY OF ERIE in a dash across Puget Sound? Unfortunately, we'll never know the answers to these questions, although I'm sure we won't be without opinions.

So which boat was the fastest and can this really be determined? Unfortunately, this is probably a question without an answer. The purpose of this effort, therefore, is to present a collection of accounts of high-speed running by commercial steam-powered, paddle-wheel vessels that exhibit clearly exceptional performance. The conditions under which these vessels ran varied to some degree and certainly influenced their average speeds. Many were made with a favorable current or tide and with a friendly wind. Others, like the run of the Columbia River sternwheeler TELEPHONE, were made with seemingly the forces of nature against her for most of the trip.

On the Mississippi and Ohio Rivers, the times of record are primarily for upstream (against the current) trips, as downstream trips were generally ignored as a valid indicator of the vessels performance; hence the slower average speeds.

Two of the most notable Mississippi River greyhounds, the ECLIPSE and J.M. WHITE III, were

never allowed to be "let out," as their owners, for whatever reasons, were not interested in setting speed records. Had they been, their performances would certainly have reflected more impressive numbers and might have even put them at the head of the list. So, with all of the above mentioned qualifications, conclusions as to any one boat being the fastest will have to remain with the reader.

The following brief accounts are of vessels running a specific course, almost always in the regular pursuit of commercial trade. The times and speeds are extraordinary and faster than normal because they were exceptionally fast vessels and, in most cases, either a record time was being attempted, they were racing, or a faltering schedule was trying to be maintained.

My candidates for fastest are as follows:

T H E L I S T

BUCKEYE STATE: 1850 - 1857

Sidewheel Ohio River Packet. Wooden hull. b. Shousetown, PA. Operated by the Pittsburgh & Cincinnati Packet Co. Constructed under the supervision of Mr. David Holmes of Pittsburgh. Hull: 260' x 29'4" x 6'6", E & N Porter Co. of Pittsburgh. Engines: (2) 29 1/2" x 8-foot stroke, broadhorn, non-condensing by J. Nelson & Co. Waterwheels: 31'8" x 12' with 20 arms/ 3' depth of bucket. Five boilers, 42" x 30' with two 16" diameter return flues in each. Rated 617.2 tons (carpenters measurement).

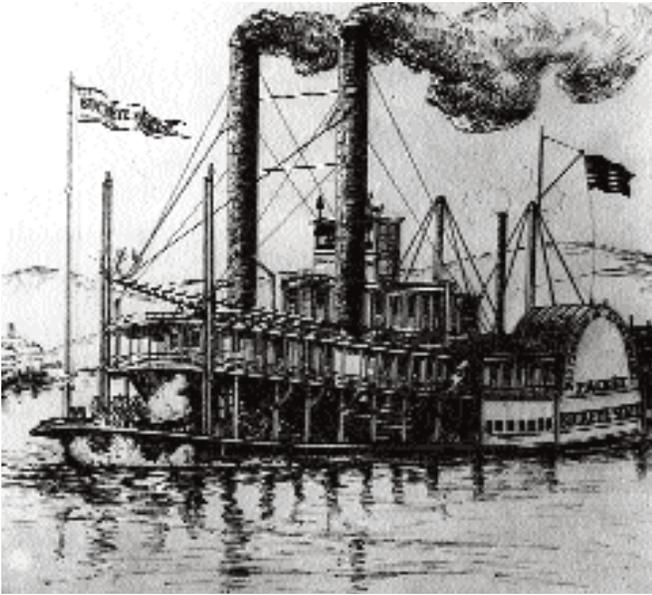
May 1, 1850:

Cincinnati, Ohio to Pittsburgh, Pennsylvania.

Distance: 470.3 miles. Time: 1 day, 19 hours (even).

Average speed: 10.93 mph.

Shortly after her launching, Captain Samuel Dean made preparations to make a record upstream run from Cincinnati to Pittsburgh.



Buckeye State

The record time for this trip had been established in 1848 by the steamer TELEGRAPH NO. 2 in a time of 1 day, 20 hours, 47 minutes. Captain Dean loosened her up for the trip by having some of the diagonal braces supporting the sampson posts and hog chaining knocked out. Her boilers were stoked with a combination of choice Pittsburgh bituminous lump coal and Ohio valley beech hardwood. A generous supply of pine knots and resin was also used. The engineer moved the full-stroke cams ahead to give "exhaust lead" and, apparently, full-stroked his engines over the entire course. She carried 200 passengers and no freight. The current was running about four miles-per-hour, however, in some places it was running much more. After 24 hours of running she was above Belpre, Ohio. At the 36-hour mark she was at the foot of Brown's Island above Steubenville, Ohio. She made Pittsburgh in 43 hours. During the trip she lost 15 minutes in the fog at Marietta, wooded three times and coaled once.

FRANCIS SKIDDY: 1851 - 1860

Hudson River Sidewheel Passenger Carrier.
 b. George B. Collyer. Wooden hull. 312'7" x 37'10" x 10'3" Vertical beam engine: 70" x 14-foot stroke by the James Cunningham & Company/Phoenix Foundry. Four iron boilers: 24' x 9' located on her guards; two fore and two aft of the paddle wheels. 70 psi.

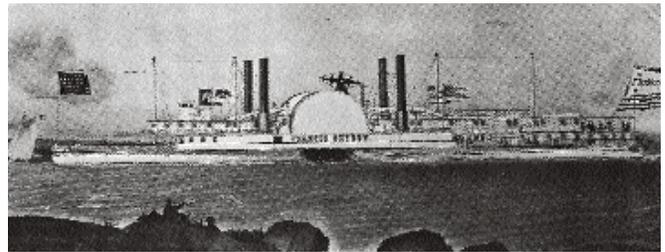
Waterwheels 40' in diameter. Rated 1,235 gross tons. First ran as a day boat, then as a night boat between New York and Albany.

June 30, 1852:

New York City to Hudson, New York.

Distance: 116 3/8 miles. Time: 5 hours, 3 minutes. Average speed: 23.04 miles-per-hour.

The FRANCIS SKIDDY left Chambers Street, New York on her regular run to Albany. She arrived in Hudson in 5 hours and 23 minutes less 5 landings giving her a running time of 5 hours, 3 minutes. Wind and tide conditions unknown.



Francis Skiddy

ECLIPSE: 1852 - 1860

Mississippi River Sidewheel Packet.

Wooden hull. 350' x 37'4" x 8'4"

(365' x 77' x 9' overall). Engines: (2) High-pressure, non-condensing - 36" x 11-foot stroke.

Eight Western-type boilers: 32' x 42", each with two 17" flues. Eight smaller boilers originally placed atop the main battery of eight larger ones, were later removed when they proved ineffective. Waterwheels: 40' x 15' Rated 1,117 tons (o.m.)

May 14, 1853:

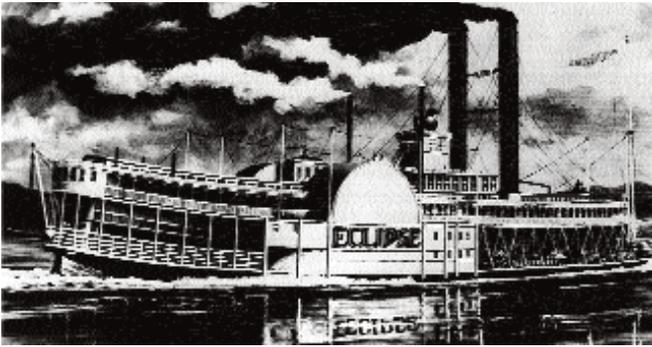
New Orleans, Louisiana to Louisville

(Portland), Kentucky. Distance: 1,455 miles.

Time: 4 days, 9 hours, 30 minutes.

Average speed: 13.79 miles-per-hour.

The giant steamer ECLIPSE left New Orleans at 10:12 a.m. and began her long "shake-down" cruise to Louisville, Kentucky. Her owner insisted that he was not trying to set a speed record. Be that as it may, she arrived at Portland, just below the Louisville Canal in record time. It is not known how many stops she made along the way or the weather conditions she encountered.



Eclipse

GREY EAGLE: 1857 - 1861

Upper Mississippi River Sidewheel Packet.

b. Cincinnati, Ohio. Minnesota Packet Company.

Wooden hull. 250' x 35' x 5' 382 tons. Engines:

22" x 7' stroke. Four boilers. Probably the fastest post-bellum boat on the Upper Mississippi river.

Hit a pier at the Rock Island bridge on May 9, 1861.

Sank in 20 feet of water and was lost.

August 17, 1858.

Dubuque (Dunleith), Iowa to St. Paul, Minnesota.

Distance: 265 miles. Time: 25 hours, 40 minutes.

Average speed: 10.75 miles-per-hour.

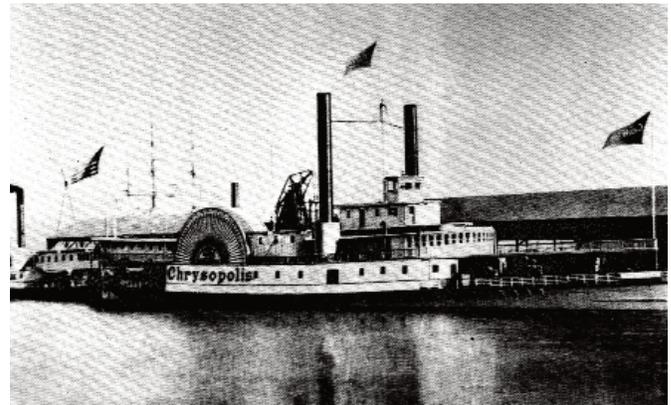
News of the completion of the Atlantic Cable came by telegraph to Dubuque, Iowa, where Captain Daniel Smith Harris was preparing the GREY EAGLE for her run to St. Paul, Minnesota.

The message also reached Prairie du Chien, Wisconsin (61 miles upriver), where Captain David Whitten was readying his steamer ITASCA to make the same run to St. Paul. In an attempt to beat the ITASCA to St. Paul to deliver the news of the cable completion, along with a personal greeting from



Grey Eagle

Queen Victoria to President Buchanan, Captain Harris left Dubuque at 6:00 a.m. with a wide open throttle and boilers fired with the best soft coal and reinforced with barrels of pitch. The ITASCA left Prairie du Chien at exactly the same time. The GREY EAGLE charged upriver at phenomenal speed after the unsuspecting ITASCA. She caught the ITASCA when only a few miles outside St. Paul. The real race began at that point when Captain Whitten realized the GREY EAGLE'S intentions. The two vessels arrived in St. Paul running neck and neck with whistles blowing and cannons booming; the GREY EAGLE winning by a nose. Records indicate that the GREY EAGLE made 23 landings on the trip, but many of these may have been made on the return trip. 35 cords of wood were consumed.



Chrysopolis

CHRYSOPOLIS: 1860 - 1940

Sacramento River Sidewheel Packet. California Steam Navigation Co. Wooden hull. 243'8" x 40'8" x 9'9" Vertical beam engine: 60" x 11-foot stroke. Rated 900 horse-power. Two boilers on the guards just forward of the paddlewheels. Waterwheels: 36' x 8' Rated 1,086.58 tons. Rebuilt as ferry OAKLAND. Dismantled and burned 1940.

December 31, 1861:

Sacramento to San Francisco, California.

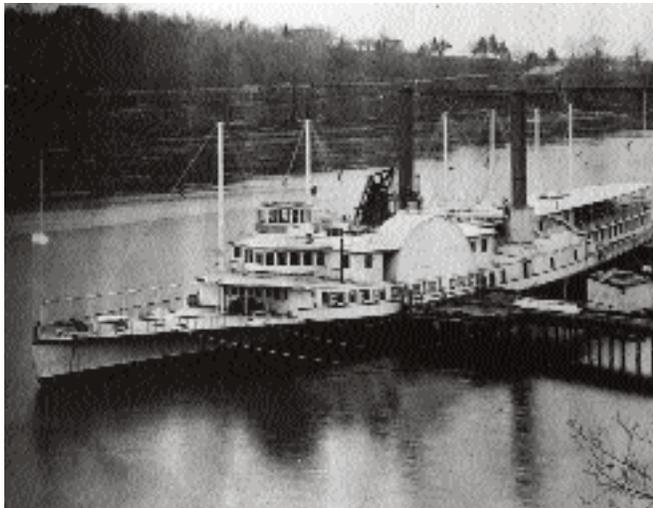
*Distance: 117 miles. Time: 5 hours, 19 minutes.**

Average speed: 22.03 miles-per-hour.

A detailed account of the trip in the CHRYSOPOLIS' log is believed to have been lost in the earthquake of 1906, but most newspaper accounts at that time credit the steamer with a

running time for the 117-mile sprint of 5 hours, 19 minutes. She was undoubtedly aided by a swift river that was at a 3 1/2-foot flood stage during that time. It is not known whether she made any stops during this trip, although it is likely she stopped at Benicia. This trip bettered the 1850 record run by the steamer NEW WORLD by 16 minutes.

**Another account gives her running time for this trip as 5 hours, 10 minutes.*



Daniel Drew

DANIEL DREW: 1860 - 1885
Hudson River Sidewheel Passenger Carrier.
Operated by the Hudson River Day Line
b. Thomas Collyer, New York.
Wooden hull: 244' x 30'6" x 9'3."
Vertical beam engine: 60" x 10-foot stroke. Engine from steam tug TITAN (1852).
(68" cylinder and new boilers installed in 1874).
Rated 475 (nominal) horse-power. Two return flue boilers operated at 35 pounds of pressure.
Waterwheels: 29' x 9.' 670.30 tons. Lengthened in 1864: 260' x 30' x 10' / 930.35 gross tons.
Burned at Kingston Point 1885.

October 13, 1862:
New York City to Hudson, New York.
Distance: 116 1/4 miles. Time: 5 hours, 5 minutes.
Average speed: 22.75 miles-per-hour.

The DANIEL DREW left Jay Street, New York and started her regular run to Albany. The run was made into a strong Northeast headwind.

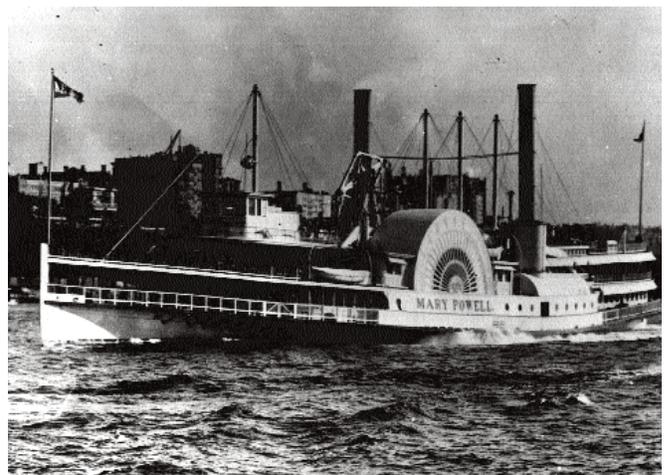
She arrived in Hudson in 5 hours, 30 minutes. Deducting 25 minutes for landings, her running time was 5 hours, 5 minutes. She continued on to Albany, somewhat slowed by the shoal waters, making the 144 mile journey in 7 hours, 20 minutes with a running time of 6 hours, 50 minutes at an average speed of 21.18 miles-per-hour.

Note: On October 28, 1864, the DANIEL DREW made the same run to Albany in 7 hours, 16 minutes. Subtracting 39 minutes for 7 landings, her running time was 6 hours, 37 minutes at an average speed of 21.75 miles-per-hour.

MARY POWELL: 1860 - 1923

Hudson River Sidewheel Passenger Carrier.
Wooden hull. b. Michael S. Allison, Jersey City, New Jersey for Captain Absalom Anderson of Kingston. 267' x 34'6" x 9'2" Vertical beam engine by Fletcher, Harrison & Co.: 62" x 12-foot stroke. Rated 819.83 tons. Lengthened in 1863: 288' x 34'6" x 9'2." Rated 983.57 gross tons. Received a new 72-inch cylinder and two new boilers in 1875. 1,560 horse-power.
Laid-up in 1919. Broken-up in 1923.

August 7, 1874:
Vestry St., New York City to Poughkeepsie, New York. Distance: 74.02 miles.
Time: 3 hours, 19 minutes.
Average speed: 22.30 miles-per-hour.



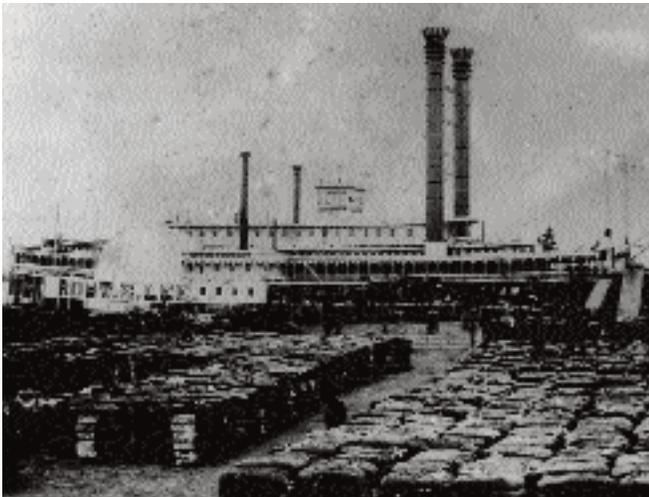
Mary Powell

With boilers operating at 35 pounds of pressure, MARY POWELL left Vestry Street in New York at 3:32 1/2 p.m. and headed north for Poughkeepsie.

With a Southeast tailwind, she arrived there at 7:12 p.m.. The total time for the trip was 3 hours, 39 1/2 minutes (minus 20 1/2 minutes for stops).

On May 26, 1882, the MARY POWELL made another fast run from 22nd St. in New York to Poughkeepsie (72.02 miles) in 3 hours, 13 minutes at an average speed of 22.37 miles-per-hour.

Note: George Murdoch, a member of the POWELL'S engine room staff from 1877 to 1879, told of three remarkable performances: "We came out of Vestry Street and from the time we got the jingle and dropped the hooks, until we were abreast of Piermont (a distance of 23.55 miles), was just 59 minutes. This is the fastest time I ever knew her to make, though to show how consistently she performed, there were two other trips made in 60 and 61 minutes." If Mr. Murdock's statement is correct, her average speed for the 59 minute trip would have been 23.96 miles-per-hour.



R o b t . E . L e e

ROBT. E. LEE: 1866 - 1876

Mississippi River Sidewheel Cotton Packet.

Wooden hull. 285'5" x 46' x 9'

Engines: (2) 40" x 10-foot stroke.

Eight boilers: 42" x 28' operating at 120 pounds of pressure. Waterwheels: 38' x 16'6"

Rated 1,456.31 tons.

June 30, 1870:

New Orleans, Louisiana to Natchez, Mississippi.

Distance: 265 miles.

Time: 17 hours, 11 minutes.

Average speed: 15.42 miles-per-hour.

On the first leg of her famous race with the steamer NATCHEZ, the LEE, with her normal crew complement, no passengers, no freight and just 33 invited guests aboard, made the 265-mile trip leaving New Orleans at 4:58 1/2 p.m. and passed the city of Natchez at 10:11 p.m. The time for the steamer NATCHEZ, running a few minutes behind the LEE, was identical to the minute.

Note: After the famous New Orleans to St. Louis race in July, 1870, the rivalry continued between the racers ROBT. E. LEE and NATCHEZ. On October 16, 1870, the steamer NATCHEZ ran the same 265-mile trip from New Orleans to Natchez in 16 hours, 51 minutes at an average speed of 15.73 miles-per-hour. On October 18, the ROBT. E. LEE tried to better this time and failed by eight minutes. The "horns" were then transferred back to the NATCHEZ, but remained with her only until the LEE won them back on October 27, making the same run in 16 hours, 36 minutes and 47 seconds at an average speed of 15.95 miles-per-hour.

ALBANY: 1880 - 1948

Hudson River Sidewheel Passenger Carrier. Hudson River Day Line. b. Harlan & Hollingsworth Co., Wilmington, Delaware.

Iron hull: 284' x 40' x 10'1"

Vertical beam engine: 73" x 12-foot stroke/
W & A Fletcher Co. Rated 3200 horse-power.

Three boilers located in the hold with three side-by-side chimneys set athwartship.

Radial waterwheels: 32' x 11'10".

Rebuilt 1893 and lengthened to 314' and new feathering paddlewheels installed.

Rated 1415.42 gross tons.

May 12, 1880:

New York City to Poughkeepsie, New York.

Distance: 72 7/8 miles. Time: 3 hours, 8 minutes.

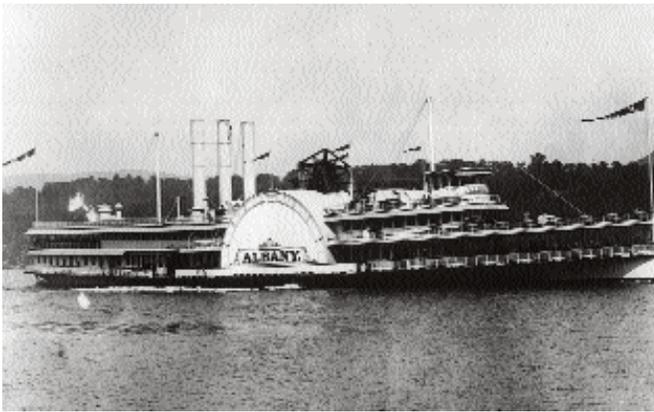
*Average speed: 23.26 miles-per-hour.**

The ALBANY left 22nd Street, New York at 11:01 a.m. and arrived at Poughkeepsie at 2:09 p.m. There was a Southeast wind at 8 miles-per-hour, later shifting to Northwest at 16 miles-per-hour.

**There is still some debate about the ALBANY'S*

actual running time. Andrew Fletcher, the builder of her engine and a passenger during this trip, stated that the running time was actually 3 hours, 13 minutes.

Note: An account exists of the ALBANY leaving the Tarrytown dock at 4:28 p.m. and arriving at the 22nd Street dock in New York at 5:30 p.m. The run was made against a moderately strong headwind. An ebb-tide was also in her favor part of the way. The distance of 24 1/4 miles was made in 62 minutes at an average speed of 23.47 miles-per-hour. No verifiable date could be found for this trip.



A l b a n y

J.M. WHITE III: 1878 - 1886

Mississippi River Sidewheel Cotton Packet.

b. Howard Shipyard, Jeffersonville, Indiana.

Wooden hull. 312'7" x 47'9" x 11'5" Engines: (2)

43" x 11-foot stroke by Ainlee & Cochran & Co.

Rated 3400 horse-power. Ten boilers, each 42" x 34'

(with two 16" flues each) by Joseph Mitchell. 178

psi. Waterwheels: 44' x 19.' Rated 2027 tons.

Destroyed by fire in 1886.

October 23, 1881:

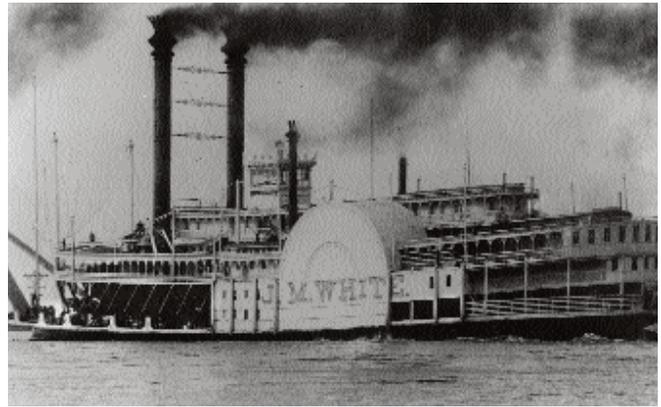
New Orleans to Baton Rouge. Distance: 133.2 miles.

Time: 7 hours, 40 minutes.

Average speed: 17.34 miles-per-hour.

While on a regular business run with a load of freight and passengers, the WHITE ran from New Orleans to Baton Rouge in a time, including all stops and a delay en route, that was about 20 minutes better than that of the ROBT. E LEE when racing the NATCHEZ in the famous race of 1870. It was reported that there were no

special preparations for making more than normal speed on this trip.



J . M . W h i t e I I I

TELEPHONE: 1884 - 1918.

Columbia River Sternwheel Packet. Operated by the Columbia River Transportation Co.

b. Smith & Paquet Yard, Portland, Oregon.

Wooden hull. 172' x 28' x 7'2."

Engines: (2) High-pressure, non-condensing - 22" x 8-foot stroke. Rated 500 (indicated) horse-power.

One locomotive-type boiler: 78" x 25'

Paddlewheel: 25' diameter with 32 buckets. Rated 386.27 gross tons. Rebuilt in 1888 and 1903.

Taken to San Francisco Bay in 1909 to run as a ferry for the Western Pacific Railroad. Advertised by her owners as the "World's Fastest Riverboat." In 33 years of running was never passed by another boat. Dismantled in 1918.

July 2, 1887:

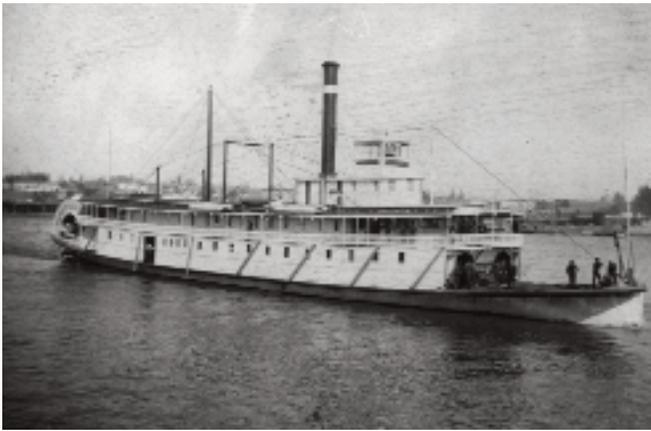
Portland, Oregon to Astoria, Oregon.

Distance: 105 miles. Time: 4 hours, 34 3/4 minutes.

Average speed: 22.93 miles-per-hour.

At exactly 10:05 1/2 a.m. the TELEPHONE left Portland with 200 passengers and freight and headed up the Willamette River for Astoria.

On this morning it was Captain U.B. Scott's intent to attempt to lower the record time between the two cities of 4 hours, 47 minutes set in 1886 by the side-wheeler OLYMPIAN. Once she left the sluggish waters of the Willamette and headed out into the Columbia River, she encountered very strong headwinds. By the time she reached



Telephone

Cathlamet, the winds had increased to nearly gale force. The winds became so strong that they completely negated the ebb-tide that would have surely aided her speed into Astoria. As she entered the bay at Astoria, the winds were so strong and the seas so rough that she snapped one of her hog-chains. Despite these adverse conditions, she flashed past Clatsop Mill landing at 2:40 1/4 p.m., completing the hazardous trip in 4 hours, 34 3/4 minutes. The time and speed are especially noteworthy considering the conditions under which the run was made.

T.J. POTTER: 1888 - 1920.

Columbia River/Puget Sound Sidewheel Packet. Operated by the Oregon Railway & Navigation Co. b. John B. Steffen, Portland, Oregon. Upperworks and machinery out of the sternwheel steamer WIDE WEST. Wooden hull. 230' x 35'1" x 10'6." Engines: (2) High-pressure, non-condensing 28" x 8-foot stroke. Rated 1200 horse-power. One locomotive-type boiler, 32' x 84." 150 psi.. Rated 659.41 gross tons. Completely rebuilt in 1901. 233'7" x 35'6" x 11'4" New engines, 32" x 8-foot stroke. Rated 2100 horse-power. 1,017 tons. Rebuilt again, 1906. Reduced to 826 tons. Retired from service 1916. Abandoned in 1920. Broken-up in 1930.

June 14, 1891:

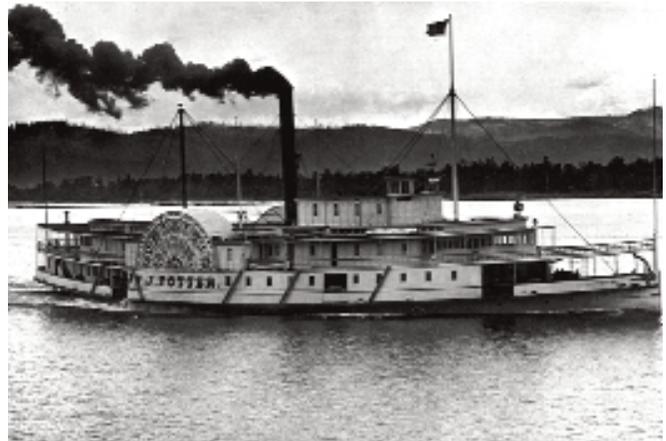
Tacoma to Seattle, Washington.

Distance: 28 miles. Time: 1 hour, 22 1/2 minutes.

Average speed: 20.36 miles-per-hour.

In preparation for her "showdown" race with the steamer BAILEY GATZERT, the T.J. POTTER was taken out of the water at Olympia, had her hull scraped, received a new coat of paint and was carefully trimmed for the contest. Running against the tide, she passed the buoy in Tacoma harbor at 10:45 a.m. with 100 passengers on board. The contest was almost a dead heat until the GATZERT blew out her nozzle about halfway through the race and lost steam pressure. The POTTER steamed past the buoy in Seattle harbor at 12:07 1/2 p.m., winning the contest and establishing a new record time between the two cities of 82 1/2 minutes.

Note: The POTTER'S record was broken on October 30, 1891, when the BAILEY GATZERT, while racing with the GREYHOUND, ran the Seattle-Tacoma course in 1 hour, 21 minutes, at an average speed of 20.77 miles-per-hour.



T. J. Potter

CHAUNCEY VIBBARD: 1864 - 1900

Hudson River Sidewheel Passenger Vessel. Hudson River Day Line. b. Lawrence & Foulks, Brooklyn, N.Y. Wooden hull. 265' x 35' x 9'6."

Vertical beam engine, 55" x 12-foot stroke. Rated 500 (nominal) horse-power. 794.31 tons. 2 boilers located on the guards. Lengthened in 1872: 281' x 35' x 9'6" Rated 1066.98 tons. New 62 1/4" cylinder installed. Received 3 new boilers in 1880 feeding 3 smoke chimneys mounted side-by-side. Sold in 1890 and operated on the Delaware River. Abandoned in 1900 and broken up.

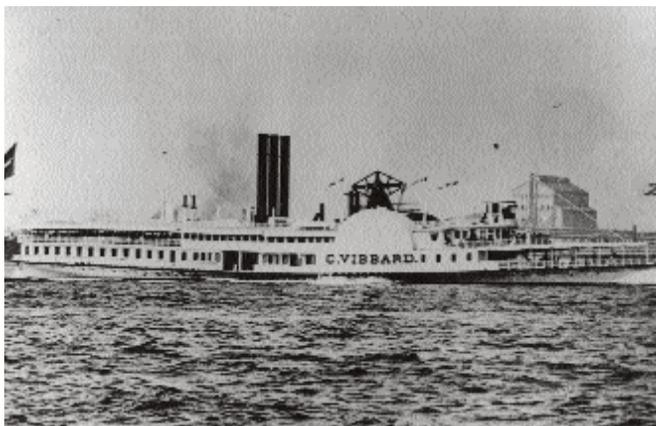
April 18, 1876.

New York City to Albany, New York.

Distance: 144 miles. Time: 6 hours, 20 minutes.

Average speed: 22.75 miles-per-hour.

In the spring of 1876 the Day Line planned to send the CHAUNCEY VIBBARD to Albany to be painted prior to the opening of regular service. Captain Dave Hitchcock took this opportunity to let her out and show her speed. She left New York City at 5:20 a.m. and arrived in Albany at 11:40 a.m. Her non-stop time for the trip was the fastest time ever made by a commercial vessel between those two cities.



C h a u n c e y V i b b a r d

NEW YORK: 1887 - 1908.

Hudson River Sidewheel Passenger Vessel.

Hudson River Day Line.

Steel hull. 301' x 40'2" x 11.'

Vertical beam engine, 75" x 12-foot stroke.

Rated 3,850 horse-power. 3 boilers side-by-side with triple smoke chimneys. Waterwheels were of the "feathering" type with buckets 12'6" x 3'9."

Rated 1552.52 gross tons. Lengthened in 1898;

335' x 40'4" x 11'2" Rated 1,975 gross tons.

Burned 1908, Newburgh, New York.

May 28, 1903.

New York City to Poughkeepsie, New York.

Distance: 72 7/8 miles.

Time: 3 hours, 8 minutes, 20 seconds.

Average speed: 23.21 miles-per-hour.

The NEW YORK left Debrosses Street Pier, New York at 8:42 a.m. and arrived at Poughkeepsie

at 11:57.20. The weather conditions were a Southwest wind during the whole trip, with a wind velocity of 12 miles-per-hour for the first hour, 11 miles for the second hour, and 10 miles-per-hour for the remaining time. The tidal conditions were high water that morning at Governor's Island, and it was generally observed at the time that there was an unusually strong flood tide. This time was within 20 seconds of the time for the 1880 record run of the ALBANY.



N e w Y o r k

CITY OF ERIE: 1898 - 1944

Sidewheel Lake Passenger and Freight Steamer.

Steel hull. Cleveland & Buffalo Transit Co.

b .Wyandotte, Michigan. 314' x 44' x 18'

Compound jet condensing vertical beam engine, 52" x 96", 80" x 144" Rated 4,500 horse-power. Six S.E. Scotch boilers, 12'6" x 11'9" with Howden forced-draft system operating at 120 psi. Feathering paddlewheels, 28'6" x 12.' Rated 2,450 gross tons.

June 4, 1901:

Cleveland, Ohio to Erie, Pennsylvania.

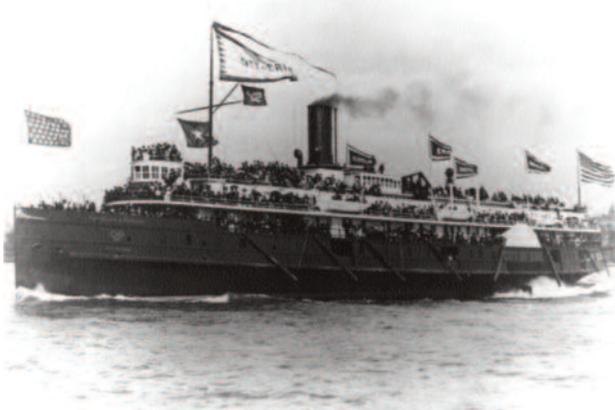
Distance: 94.5 miles.

Time: 4 hours, 19 minutes, 9 seconds.

Average speed: 21.97 miles-per-hour.

On a nearly straight course, the CITY OF ERIE raced with the triple-inclined, sidewheel passenger steamer TASHMOO along the south side of Lake Erie, starting from a line off the Water-works crib, six miles outside of the breakwater at Cleveland, Ohio, to a line 10 miles off Presque Island Light House at Erie, Pennsylvania. The CITY OF ERIE won the race by only 45 seconds.

The speeds of these boats are of particular interest as they are “through-the-water” without benefit of any tidal influences.



City of Erie

CITY OF LOUISVILLE: 1894 - 1918
Sidewheel Ohio River Packet. Wooden hull. 301' x 42'7" x 7' Louisville-Cincinnati Packet Co. Engines: (2) High-pressure: 30" x 10-foot stroke. Eight water-tube boilers, each 42" x 26.' Destroyed by ice in 1918 and dismantled.

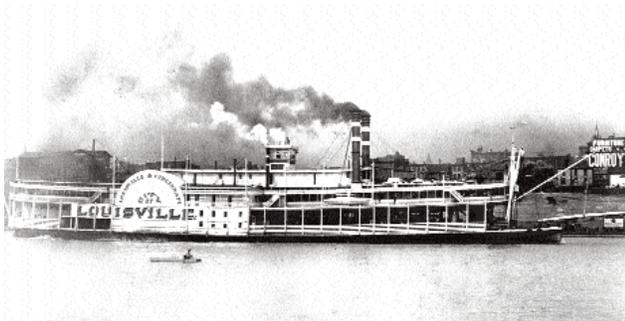
April 18, 1894:

Louisville, Kentucky to Cincinnati, Ohio.

Distance: 133.5 miles. Time: 9 hours, 42 minutes.

Average speed: 13.76 miles-per-hour.

With Captain John Brennan in command, the CITY OF LOUISVILLE departed Louisville at 3:00 p.m. and headed upstream. At 3:57 she passed Charlestown. She made Bethlehem at 5:04, Madison at 6:16, Warsaw at 8:30, and Lawrenceburg at 11:02. She arrived at the foot of Main Street in Cincinnati, with the river at 22 feet, 10 inches, at 12:42 p.m.



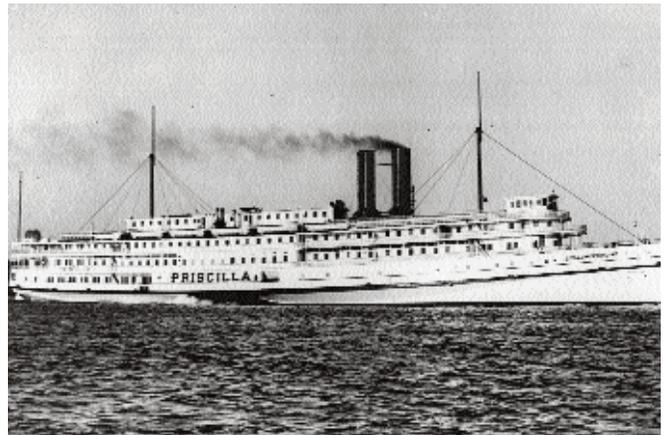
City of Louisville

Note: Two years later, on April 5, 1896, she made the record downstream run in this trade, making the trip in 5 hours, 58 minutes at an average speed of 22.38 miles-per-hour. She returned to Cincinnati later that day in 9 hours, 40 minutes (13.82 miles-per-hour), beating her previous record by two minutes. Her average speed for the two-way trip was 17.08 miles-per-hour. At the time there was 47 feet of water in the Cincinnati gauge.

PRISCILLA: 1894 - 1937

Sidewheel passenger vessel. Operated by the Fall River Line. b. Delaware River I.S.B. & E Works. Steel hull: 425'.8" x 52'3" x 18'3.'

Double-inclined compound engines by the W & A Fletcher Co. Two high-pressure cylinders 51" dia./two low-pressure cylinders 95" dia. 11-foot stroke. 8500 horse-power. Waterwheels 35' dia with 14' (feathering) buckets. The largest river steamer built in the 19th century.



Priscilla

June 20, 1894:

Cornfield Light Ship to Stratford Shoal.

Distance: 69.9 miles.

Time: 2 hours, 58 minutes.

Average speed: 22.55 miles-per-hour.

While on her run from the Newport, Rhode Island Wharf to the Battery at New York, she made the run from Cornfield Light Ship to Watch Hill Light, a distance of 27.6 miles, in 1 hour, 12 minutes at an average speed of 23.00 miles-per-hour. She continued on to Stratford Shoal, with the assistance of a flood tide, making the distance in less than 3 hours.

Note: On July 21, 1924, the PRISCILLA intercepted an S.O.S. from the Eastern Steamship Line's steamer BOSTON, which had just been hit broadside by the tanker SWIFT ARROW. The PRISCILLA was slowly groping toward New York City in a thick fog when Captain Fred Hamlen and engineer Peter Brooks turned her around and headed for the sinking vessel about 40 miles away. She ran through the fog full-out, arriving at the distressed steamer in one hour and 50 minutes, averaging 21.82 miles-per-hour. The BOSTON was saved from sinking through the heroic efforts of the steamers PRISCILLA and COMMONWEALTH.

BAILEY GATZERT: 1890 - 1926

Puget Sound/Columbia River Sternwheel Packet and Excursion Boat. b. John J. Holland Yard, Ballard, Washington. Wooden hull: 177'3" x 32'3" x 8' (2) Simple high-pressure, non-condensing poppet-valve engines, 22" x 7-foot stroke by James Rees & Sons, Pittsburgh, PA. Rated 1300 horse-power. One locomotive-type boiler 78" x 33'3 3/8." 560 gross tons. Operated for a short time on Puget Sound, then taken to the Columbia River in 1892. Extensively remodeled at Astoria, Oregon in 1895. Rebuilt at Portland, Oregon in 1907 by John J. Johnston. 194'3" x 32'8" x 8' Given larger high-pressure engines from the steamer TELEPHONE; 26" x 8-foot stroke. Rated 878 gross tons. Returned to Puget Sound in 1918 as a passenger and automobile ferry. Dismantled 1926.



B a i l e y G a t z e r t

June, 1914:

The Dalles, Oregon to Portland, Oregon.

Distance: 115 miles. Time: (approx.) 5 hours.

Average speed: (approx.) 22.00 miles-per-hour.

The exact day and "official" time are not documented, however, several accounts exist of the BAILEY GATZERT leaving The Dalles, Oregon with a large excursion party at 3:10 p.m. The run was not made to attempt a record of speed, but to deliver passengers to Portland in time to witness a large night parade and celebration. During this dash to Portland, the GATZERT made four stops and lost time locking through at the Cascades. She arrived at Portland at about 9:03 p.m.; the actual running time: a few minutes over five hours. Her average running speed for the 115 miles was slightly more than 22 miles-per-hour.

HASSALO: 1899 - 1927

Columbia River Sternwheel Packet. Oregon Railway & Navigation Co. b. Portland, Oregon by Peter Carstens for the Oregon Railway & Navigation Co. at the direction of A.L. Mohler of the Union Pacific Railroad. Wooden hull. 181'3" x 36'8" x 8'4" Engines: (2) Tandem compound 22.5", 38.75" x 98" stroke. Rated 1,228 horse-power. Dished pistons. One locomotive-type boiler. 187 psi. Rated 679 gross tons.

June 18, 1899:

Portland to Astoria, Oregon. Distance 105 miles.

Time: 4 hours, 22 3/4 minutes.

Average speed: 23.80 miles-per-hour.

In the summer of 1899, the new steamer HASSALO was carefully groomed for a speed run between the cities of Portland and Astoria. The purpose of the trip was to break the 12-year old record held by the steamer TELEPHONE on that run. With picked fuel, her hull stripped of all superfluous weight and taking on no passengers or freight, the HASSALO made the trip in 4 hours, 22 3/4 minutes - setting a new record for that passage. Although her time was 12 minutes faster than the TELEPHONE'S, some felt that the conditions under which the two vessels ran were so different, that a direct comparison would be difficult to make..

The TELEPHONE left on her regular schedule at around 10:00 a.m., encountering morning headwinds; the HASSALO left at 7:35 a.m. to avoid the headwinds. The TELEPHONE carried a full load of passengers and freight; the HASSALO took no passengers or freight. The HASSALO used special fuels; the TELEPHONE did not. The TELEPHONE ran against nearly gale-force winds for part of the trip; the HASSALO also encountered winds, but of less force. Many rivermen believe that had the TELEPHONE made the trip with the same preparations and under the same conditions, her time would have been equal to or better than the HASSALO'S. Even though the HASSALO'S time was quicker, the question of which boat was faster is still debated.



H a s s a l o

ROYAL: 1891 - 1896.

Ohio River Sternwheel Packet. Wooden hull. 163'6" x 30'6" x 6'6." Engines: (2) High-pressure, 15 1/2" x 5 1/2-foot stroke. Three boilers, each 40" x 24' with 5 eight-inch flues.

Allowed 169 pounds of pressure. Iron cylinder beams, iron rudders and a staggered paddlewheel. Burned above the Evansville wharf in 1896.

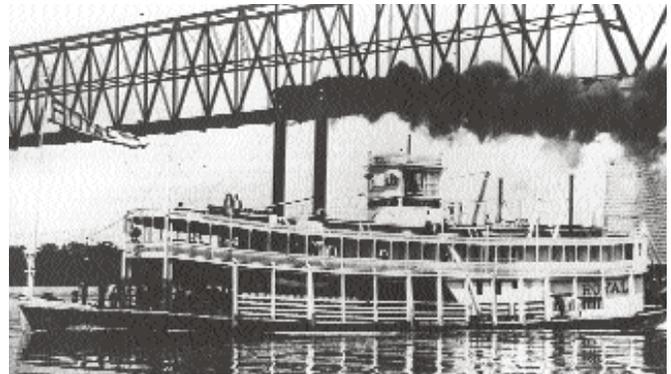
May 16, 1891.

Henderson, Kentucky to Evansville, Indiana.

Distance: 13 miles. Time: 52 minutes.

Average speed: 15.00 miles-per-hour.

The ROYAL was a truly exceptional boat, owing much of her speed to her marvelous hull lines. Her performance becomes particularly special when compared to other notable vessels. The ECLIPSE (1852) took 57 minutes to cover the same distance. The "racer" ROBT. E. LEE once ran the course in 49 1/2 minutes, but took a short-cut that saved an estimated 3 minutes - so it's difficult to say that the LEE'S time was any greater than the ROYAL'S.



R o y a l

This completes the list of steam-powered paddlewheel vessels that I believe are probably the fastest to ever run on the waters of the United States. They were all made by very fast boats - and one of them probably deserves the title of being the fastest. Which one is actually the quickest is, I still believe, a question without an answer. The question, however, does solicit an opinion - and that is exactly where all this began.

Most of the information presented here is supported by several sources. Where there were contradictions or disagreement (and there were many), I chose to report the information favored by general consensus. The information is, as far as I can know, accurate.

There are undoubtedly boats that others will feel should be included here and probably deserve mention - so here in the following list are a few other vessels that would certainly qualify among the elite of the swift. Hopefully your favorite boat is here somewhere.

THE LIST CONTINUED

SOUTH AMERICA (1843)	Hudson River
J.M. WHITE II (1844)	Mississippi/Ohio R
THOMAS POWELL (1846)	Hudson River
MESSENGER NO.2 (1848)	Ohio River
NEW WORLD (1850)	Sacramento River
PRINCESS (1855)	Mississippi River
METROPOLIS (1855)	Long Island Snd.
JAMES A. LUCAS (1856)	Missouri River
CITY OF LOUISIANA (1859)	Mississippi River
ALIDA ((1860)	Hudson River
CITY OF BOSTON (1865)	Long Island Snd.
HAWKEYE STATE (1868)	Upper Mississippi
PHIL SHERIDAN (1868)	Upper Mississippi
NATCHEZ VI (1869)	Mississippi River
SYLVAN DELL (1872)	Hudson River
PURITAN (1889)	Long Island Snd.
GREYHOUND (1890)	Puget Sound
ROSSLAND (1897)	Upper Columbia R
HENDRICK HUDSON (1906)	Hudson River

B I B L I O G R A P H Y

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