

Did The LIRR's Brooklyn To Boston Route (Ca. 1844- 1847) Fall Victim To Wall Street Stock Manipulation, Unfair Competition From Its "Partner Railroad", The Untimely Inaction Of Its Own Board, And Finally, A Coup-De-Grace Delivered By The Builder Of The Atlantic Avenue Tunnel- Or Was Its Failure Purely The Result Of Darwinian Market Forces?

By Bob Diamond

**Notes:** The very low financial figures cited below need to be put into their proper perspective, in terms of relative value. The total original capitalization of the LIRR, to build from Brooklyn to Greenport (a distance of 95 miles), was, as of the year 1836, \$1.5 million. Its construction cost, as estimated by its original Chief Engineer, Maj. D.B. Douglass, was \$1.557 million (includes \$300,000 to complete the Brooklyn & Jamaica RR). This figure did not include the capital costs of the LIRR's subsequent steamboat operations (*New-York Annual Register For The Year 1836*, Published by Edwin Williams, 1836, pg 191- 192).

The opinions and conclusions cited below are strictly my own, and do not necessarily reflect the opinion of any other person. Special thanks go to Richard A. Fleischer for his invaluable comments and advice.

Back in 1980, in the course of researching the history of the Atlantic Avenue tunnel in order to locate its entrance, I was fascinated to learn the original purpose of the LIRR was to connect New York harbor with Boston and other points in New England, beginning in August 1844, and ending in March, 1847. I was left wondering why this route was abandoned after less than three years of use.

Apparently, the LIRR's Brooklyn to Boston route was at first a great success. According to the *History Of American Steam Navigation*, By John H. Morrison, W.F. Sametz & Co, 1903, pg 290, the LIRR's Brooklyn to Boston route carried, what was then, a very robust 150,000 passengers in the first year of its operation. For the year of 1844, the LIRR made a net income of \$70,046.94. The LIRR's gross receipts for 1844 were \$153,458.83, with \$78,294.99 coming from its Boston and New England traffic (note, this figure only reflects the period of Aug- Dec, 1844), and its expenditures were \$83,412.89 (*The Merchant's Magazine And Commercial Review*, conducted by Freeman Hunt, Vol 13, July- December 1845 pg 490).

At that time, in terms of operating speed, the LIRR was the fastest railroad in the United States (*The Merchant's Magazine And Commercial Review*, conducted by Freeman Hunt, Vol 13, July- December 1845 pg 490).

Morrison goes on to say (pg 290) "The United States government patronized this route to a large extent in the carrying of the eastern mail, express matter, etc" and "This was the longest rail route between the two cities [New York harbor and Boston], and the shortest water route at the time: one of the reasons why Providence lost so much travel in favor of Stonington at this period".

According to the *Ocean Carrier*, By Dr. J. Russel Smith, PhD., 1908, pg 168, "This Long Island route, having the longest rail line, and the shortest water line, had the advantage over all others in point of time required...This Long Island line was very popular, was much used for three years, and carried the United States mail to Boston...".

According to *Commodore The Life Of Cornelius Vanderbilt*, By Edward J. Renehan, Basic Books, 2007, pg 148, "The new LIRR/N&W route between Boston and New York offered early morning departures which assured arrival in one's destination city by evening. Thus, for the first time, travelers passing between the two towns could avoid having to spend a night abroad".

Recently, a new book on the life of “Commodore” Cornelius Vanderbilt has been published, and the author of this book, T.J. Stiles, has graciously made available to me an extremely rare find- extracts of the *LIRR Board of Director's Minutes Books* from early 1843 through mid 1847. This document sheds new light on the LIRR's Brooklyn to Boston route, and affords the opportunity to re-evaluate the early history of the LIRR.

Cornelius Vanderbilt dumped all his LIRR stock and left the LIRR's board of directors (after serving about 2 years) at the beginning of 1846. The LIRR dropped its Brooklyn to Boston route in mid March, 1847. According to the LIRR's Annual Report to the State of New York, dated February 4, 1847, the LIRR had already become unprofitable sometime during 1846, with a reported loss of \$55,776.99 by December 31, 1846 (*New York Secretary Of State Report Relative To Railroad Statistics*, 1846, pg 37-38). Why?

According to conventional thought, the LIRR dropped its Brooklyn to Boston route for two major reasons. First, competition from the Fall River Line, and secondly, competition from the all rail route to Boston, via the New York & New Haven RR (this route was dependent on trackage rights over the New York & Harlem, the New York & New Haven, the Hartford and New Haven, the Western RR and the Boston & Worcester RR). However, an examination of the dates of operation for these routes tells a different story.

The Fall River Line between Manhattan and Boston didn't start operations until May, 1847. The inland all rail route of the New York & New Haven between Manhattan and Boston didn't begin operations until January, 1849. Construction of this rail line didn't even start until September, 1847- six months after the LIRR abandoned its Brooklyn to Boston route. It should be noted that the boat/rail route of the Fall River Line operated highly successfully until the 1930's.

The LIRR dropped its Brooklyn to Boston route almost three months before competition attributed to the Fall River Line even existed (May, 1847). Competition to the LIRR couldnt have come from the NY&NH & etc. all rail route, until almost a year (Jan 1849) after the LIRR dropped its Boston “through route“ service. Vanderbilt ran the other way from the LIRR in early 1846, before the LIRR's competition attributed to the Fall River Line and the NY&NH RR even existed. On the surface, this could merely be an example of Vanderbilt and the LIRR's board wisely anticipating market trends, and bailing out while the getting was good.

However, this could also suggest other forces were at work. According to T. J. Stiles book, *The First Tycoon The Epic Life Of Cornelius Vanderbilt*, (Knopf, 2009), the relationship between Cornelius Vanderbilt and the LIRR was apparently a “shot gun wedding”.

In the spring of 1844, as the LIRR neared completion, the railroad sent out its emissaries to make routing arrangements with the railroads on the other side of Long Island Sound. The LIRR was flatly told that no rail connections could be made, without the consent of the Sound steamboat operators already connecting with these roads (Stiles pg 142, and *LIRR's Shareholder's Report*, Jan 1, 1845, pg 9). Today, this restraint of trade would no doubt violate a myriad of Federal laws, but for most of the 19th century, interstate trade was virtually unregulated.

The LIRR began making overtures to Vanderbilt during the spring and summer of 1844, including hosting a tremendous party on July 29th and 30th, 1844, to celebrate the completion of its line to Greenport. On August 1, 1844, the LIRR began negotiating with Vanderbilt for the provision of his steamboats for the crossing of Long Island Sound, between Greenport, NY and Stonington, CT and

between Greenport, NY and Norwich, CT (Allyn's Point). By August 8, 1844, the LIRR had purchased Vanderbilt's steamboats.

On Friday, August 9, 1844, the LIRR inaugurated its Brooklyn to Boston "Through By Daylight" service. The "through" fare was \$4.50, excluding meals. The steamboat *Narragansett* (owned by Vanderbilt's enemy, the NJ Steam Navigation Co, formerly the "Transportation Co.") plied the water section of route eastbound between Greenport, L.I. and Stonington, CT. It is assumed the LIRR's own steamboat, the *Worcester*, made the westbound leg of the journey between Stonington and Greenport.

The LIRR's steamboat *New Haven*, made the eastbound trip between Greenport and Norwich. It is assumed the LIRR's steamboat *Cleopatra* made the westbound trip between Norwich and Greenport (LIRR Notice, *Brooklyn Eagle*, Aug 8, 1844, pg 2 and *The Connecticut Magazine*, Vol 10, 1906, pg 452).

Later in 1844, Vanderbilt agreed to serve on the LIRR's board of directors, and its operations sub Committee. The cooperation and support of Vanderbilt came at a hefty price. The LIRR had to give Vanderbilt a large block of its stock, and the railroad had to buy Vanderbilt's existing Long Island Sound steamboats, the *Cleopatra*, the *Worcester* and the *New Haven*. In total, the LIRR paid Vanderbilt \$120,000 in unissued stock and \$112,500 in company bonds. These bonds were at a rate of 6% for periods of 6, 12 and 18 months (*LIRR Minute Books* Aug 8, 1844).

Vanderbilt had been previously using these steamboats, since 1842, to operate the run between Manhattan and the Allyn's Point Norwich and Worcester RR, Boston & Worcester RR water/rail route from Manhattan to Boston (Stiles pg 142). These steamboats would leave Manhattan at 5PM. Eleven hours later (4AM), and 127.7 miles by water distant (distance per *NOAA Distances Between U.S. Ports*, pg 12 and the *NYNH&H Employee Timetable*), the steamboat would arrive at Allyn's Point (an average speed of 11.5 mph). There, the sleeping passengers would be awakened, and tumbled onto the waiting train to Boston (Renehan, pg 144), a journey of an additional 110 miles in about 2 hours, making an overall travel time between NY harbor and Boston of 13 hours. It should be noted though, that according to *The Connecticut Magazine*, Vol 10, 1906, pg 311, the *Cleopatra* was capable of making 20 mph, or 17.4 knots, under favorable conditions.

These vessels were then put to work by the LIRR, but under Vanderbilt's direction, forming the cross Long Island Sound steamboat portion of the LIRR's operation, shuttling between Greenport and the N&W's terminal at Norwich (Allyn's Point) as well as between Greenport and the New York, Providence and Boston terminal at Stonington, on alternate days.

After a short time, the Stonington connection was abandoned in favor of Norwich at Allyn's Point. It is said the LIRR made this move at the behest of Vanderbilt, as he held a long standing grudge against the rival transportation interests of Stonington and Providence- the B&P, the Stonington railroad (NYP&B) and the Boston & New York Transportation Company (Stiles pg 143).

The LIRR in effect paid Vanderbilt a total of \$232,500 for the privilege of making rail connections on the Connecticut side of Long Island Sound. In total, the LIRR spent \$400,000 in capital costs on the waterborne portion of their operation, including vessels, docks and other nautical necessities (*Commodore Vanderbilt, An Epic of the Steam Age* By Wheaton J. Lane, Alfred A. Knopf, 1942 pg 73). The LIRR had to amend its corporate charter in order to raise these additional funds, and operate the steamboats.

It should be noted, that Vanderbilt was not the LIRR's first choice as a partner in its cross L.I. Sound steamboat operation. The LIRR's first choice was Vanderbilt's arch rival in the L.I. Sound steamboat business, the New Jersey Steam Navigation Company (*LIRR Minute Books*, August, 1844) formerly the Boston & NY Transportation Co, aka "The Transportation Company". This firm operated steamboat lines connecting Manhattan with the Stonington road (NY, Providence and Boston RR) at Stonington, CT and with the Boston and Providence Railroad at Providence, RI. The "Transportation Company" was wholly owned by the board members of the Boston & Providence RR.

The B&P and the Transportation Company became mortal enemies of Vanderbilt, when in 1835, they barred him from utilizing their company dock at Providence (India Point), and from having through fares and scheduling with their trains to Boston. Vanderbilt lodged a complaint with the Rhode Island legislature. In 1837, the B&P was found in violation of fair trade provisions of its charter, and had to allow Vanderbilt access to its Providence dock, and make direct connections with their Boston trains. Vanderbilt was hailed by the press as an "anti-monopolist" (Stiles pg 106- 110). Little did they know...

In March of 1845, the LIRR essentially "partnered" with the N&W (Renehan, p.147), by making a through fare agreement with the Norwich & Worcester RR and the Boston and Worcester RR. The provisions included the railroads pooling their collective revenue from the Brooklyn to Boston route, and dividing it in the following way: To the LIRR went 45% and to the N&W and B&W collectively 55% (*LIRR Minute Books*, March 6, 1845). While the Stonington road connection was used by the LIRR, it is assumed that similarly, to the LIRR went 45% and to the Stonington road and the B&P collectively 55%.

Since the steamboats connecting these roads were owned and operated by the LIRR, in effect, the LIRR was paid only 45% to do 60% of the work (from Ruggles speech, *LIRR Minute Books*, Sept 5, 1845).

The original business plan of the LIRR called for two connecting feeder routes (the NYP&B and the N&W) to Boston and other points in New England (*LIRR Shareholder's Report*, Jan 1, 1845, pg 1). The LIRR was to fed upon the population and industry situated within the territories of those two routes.

It was estimated by the LIRR in its business plan, that all of its operating costs would be paid for by its local service on Long Island itself, and the "through traffic" provided by the NYP&B and the B&W, would be purely profit to the LIRR (*LIRR Shareholder's Report*, Jan 1, 1845, pg 4).

However, at the behest of Vanderbilt (Stiles pg 143), as of April 10, 1845, the LIRR terminated its Stonington road to Boston route, and the LIRR's one remaining Boston route via the N&W at Allyn's Point then only operated three days a week (LIRR Schedule, *Brooklyn Eagle*, Apr 10, 1845, pg 2). On April 24, 1845, the LIRR began operating six days a week to Boston via the N&W (LIRR Schedule, *Brooklyn Eagle*, Apr 24, 1845, pg 2). The inherent problem though, would have been that of demand.

The N&W route had previously been adequately serviced by the LIRR at three days a week. Simply adding on three additional service days, would not create the additional demand to warrant this new level of service, which had been doubled without justification, purely to satiate Vanderbilt in his quest against the Stonington road and the Transportation Co (Stiles pg 143). The LIRR's six day a week N&W route probably ran half empty.

By severing its connection with the Stonington road, the LIRR had effectively cut off over half of its own profitable market, as per the revenue source estimates cited on page 4 of the *LIRR Shareholder's Report* of Jan 1, 1845, thereby placing it in a highly precarious position.

In June, 1845, the LIRR whole heartedly cooperated with Vanderbilt in his fare wars against his rivals in the Long Island Sound transportation business . The through passenger fare between Brooklyn and Boston had been slashed from \$5 (base fare of \$4.50, and probably included meals) down to only \$2 (*LIRR Minute Books*, August 20, 1845 and Stiles pg 144), effective June 23, 1845 (LIRR Notice, *Brooklyn Eagle*, June 21, 1845, pg 3). The LIRR also reduced its local (accommodation train) fare between Brooklyn and Greenport from \$2.25 to \$1.75 (LIRR Schedule, *Brooklyn Eagle*, June 10, 1845, pg 2). According to Lane (pg 73), the LIRR further reduced its local fare on the accommodation train between Brooklyn and Greenport, to only 50 cents.

Beginning July 3, 1845, the LIRR started running its steamboat *Worcester*, and later its steamboat *New Haven*, from Greenport to Newport and Providence, RI., for a fare of only \$1 (LIRR Schedule *Brooklyn Eagle*, July 1, 1845 pg 2). Clearly, the creation of this new “outside line” was made to assist Vanderbilt in his fare wars against the Stonington road, the B&P and the New Jersey Steam Navigation Company (formerly the Transportation Co.). The fare on this new route was then slashed to only 50 cents, and the route disappeared after Oct 20, 1845 (LIRR Schedule, *Brooklyn Eagle*, Oct 20, 1845, pg 1).

The terms “inside line” referring to the route being situated west of Point Judith, RI., sheltered by Long Island Sound, and the term “outside line” referred to the route being situated east of Point Judith in open ocean. The Stonington road was now completely boxed in, with the LIRR's new outside line to its east, and the inland route of the LIRR/N&W route to its west.

Vanderbilt's fare wars were having their effect on the stock of his enemies (Stiles pg 144-145). In July, 1845, Vanderbilt and his sometimes business ally Daniel Drew, took control of the Stonington road, by cornering 20% of its stock (Renehan, pg 149).

On June 1, 1846, Vanderbilt's sale of three modest steamboats to the Hartford and New Haven RR (to operate between Manhattan and New Haven) for \$180,000 in that company's stock, made Vanderbilt a major shareholder and Director in that road (Stiles pg 145).

In August, 1846, with Vanderbilt's help, Drew cornered controlling stock in the New Jersey Steam Navigation Company (formerly the Boston & NY Transportation Company, one of Vanderbilt's original foes) and he then managed the line in the interest of Vanderbilt (Stiles pg 146, 166).

As for the concept of competition to the LIRR arising from the Fall River Line, we must realize the LIRR was supposed to be a major part of that very route (*LIRR Minutes Books* Sept 5, 1845, and *LIRR Shareholder's Report* Jan 1, 1845 pg 1). I believe this plan was in fact devised by Vanderbilt to help suppress his enemies in the Long Island Sound transportation business, and was then put forth on his behalf, by his fellow LIRR board member Henry Ruggles, at the LIRR board meeting of September 5, 1844.

Vanderbilt would have controlled both of the “inland routes” through the LIRR/N&W as well as via the H&NH, the “inside line” via the Stonington road and the “outside line” via Fall River.

Together, these moves would have given Vanderbilt and Drew control over all the major rail and water routes from New York harbor to Boston and points in New England.

In terms of passenger and freight traffic on an LIRR/Fall River route, Mr. Henry Ruggles, in his great speech to the LIRR board Of directors ( *LIRR Minute Books*, Sept 5, 1845), cites much data from the

U.S. Census Tracts of 1840. Along the Fall River route, the LIRR would have received a large number of passengers in their territory, as well as tapping into the heavily industrialized area south of Boston. At the same LIRR board meeting, it was resolved to send a delegation to meet with representatives of the Fall River Railroad, as well as with the New Bedford and Old Colony railroads for the establishment of a new rail/boat/rail route between Brooklyn and Boston (*LIRR Minute Books*, Sept 5, 1845).

To run a successful steamboat connection between Greenport and Fall River, a distance of 81.65 miles, required an entirely new breed of high speed, luxurious steamboat, capable of taking on George Law's new steamboat, the *Oregon*. At the time, the *Oregon* was touted as the fastest steamboat in America (Renehan pg 149-150). To this end, the LIRR board at their Nov 22, 1845 meeting, voted to build a new "first class steamer" (*LIRR Minute Book*, Nov 22, 1845).

Based upon the circumstantial facts, I submit the un-named vessel commissioned by the LIRR was in actuality, the steamboat *Atlantic*. It was built by the same firm, Bishop & Simonson. Work on this vessel began in November 1845 (Renehan pg 148), directly corresponding to the *LIRR Minute Book*, and it was completed in mid May 1846, prior to June 1, 1846, as called for in the *LIRR Minute Book*. Vanderbilt custom designed this vessel for the specific purpose of making the run between Greenport, NY and Fall River, Mass. in luxury, at what was then a great speed for a steamboat. The *Atlantic* was likely the first steamboat to be lit by gaslight, manufacturing gas on board (Renehan pg 149).

The LIRR's board of directors may have lost their nerve for Vanderbilt's highly aggressive and "fight to the death" brand of high finance (or perhaps simply found they had exhausted the LIRR's credit, as the *Atlantic* would cost \$150,000).

According to the *LIRR Minute Books*, at the LIRR board meeting of Jan 13, 1846, the board resolved to sell their unfinished steamboat *Atlantic* to the N&W. Vanderbilt was not present for this, or any subsequent LIRR board meetings.

It should also be noted, that Vanderbilt was present only the day before, at the Jan 12, 1846 LIRR board meeting, when Mr. Ruggles first brought up the idea of selling the *Atlantic* to "another road" (*LIRR Minute Books*, Jan 12 and 13, 1846).

There appears to be a direct circumstantial connection between the sale of the *Atlantic* to the N&W and the LIRR's failure to quickly establish a new Boston route via the Fall River RR, with Vanderbilt selling off all his LIRR stock, and walking away from the LIRR's board.

I would imagine Vanderbilt was somewhat "disappointed" with the board of the LIRR- after all, he personally designed and contracted for the largest, fastest, most luxurious steamboat ever built in the U.S. - the *Atlantic*. The LIRR board literally left him "holding the bag" for it, and effectively threw a wrench into his master plan to eliminate his enemies and gain his own monopoly in Long Island Sound.

Instead, the N&W bought the unfinished *Atlantic* from the LIRR in January, 1846 (*LIRR Minute Books* January 13, 1846)- and along with it went Vanderbilt and his brother, "Captain Jake" Vanderbilt, to build and operate it for them (Renehan, pg 148 ).

At the LIRR board meeting of Feb 3, 1846, it was resolved to put up for sale two of the LIRR's steamboats, the *Cleopatra* and the *Worcester*.

On May 8, 1846, these two vessels were sold to the N&W (LIRR *Minute Books*, May 8, 1846). It is reported at the Aug 5, 1846 LIRR board meeting (*LIRR Minute Books* Aug 5, 1846), that the LIRR steamboats *Cleopatra* and *Worcester* were sold to the N&W for \$40,000 cash and \$100,000 in N&W bonds at 7% for periods of 2, 3 and 5 years.

The LIRR's board erroneously assumed the N&W would continue to operate these two steamboats between Greenport and Allyn's Point. In effect, the cost of operating the steamboats on the LIRR's Brooklyn to Boston route, would be shifted onto the N&W, with the LIRR continuing to derive the economic benefit of the steamboats, but at no cost to itself. The LIRR's board was dead wrong.

As of August 1, 1846, the N&W ceased operating the *Cleopatra* and *Worcester* "on charter" to the LIRR (*The Quickest Route*, By Elmer F. Farnham, 1973, pg 113). In order for the LIRR to continue its one remaining Boston "through route" via the N&W, it would have to operate its one remaining steamboat, the *New Haven* in shuttle service between Greenport and Allyn's Point, and vice-versa.

Starting on August 19, 1846, the N&W's *Atlantic* began operating between Manhattan and the Allyn's Point N&W rail route to Boston- this in direct competition with the N&W's "partner", the LIRR. It appears from the records, that the *Atlantic* was capable of holding an average speed of about 18.42 mph, giving the LIRR's slower Boston express trains (on a 3 hour and 40 minute Brooklyn to Greenport schedule, rather than the faster 2-1/2 hour schedule) a run for their money.

According to Farnham, pg 113- 114, on its maiden voyage from Manhattan To Allyn's Point, the *Atlantic* performed the 127.7 mile run in the record breaking time of 6 hours and 54 minutes. The arithmetic gives us an average speed for the *Atlantic* of 18.42 mph. That same evening, George Law's *Oregon* was running the Stonington route, and had left Manhattan at 5:10pm, at the same time as the *Atlantic*. An unofficial race ensued. Once on Long Island Sound, The *Oregon* was defeated, appearing as "distant lights" from the stern of the *Atlantic*.

The N&W's rail link to Boston was now fed by two routes, the LIRR from Greenport, and N&W's own steamboat route from Manhattan to Allyn's Point, which utilized three of the LIRR's own former steamboats- now in direct competition with the LIRR, the purported "partner" of the N&W.

It seems the LIRR's board of directors made a tremendous business error by selling the *Atlantic* to the N&W. According to Farnham, pg 114, regarding the N&W's new Manhattan to Boston route via Allyn's Point, utilizing the steamboat *Atlantic*, instead of the LIRR, "Said the [Norwich] Courier, we are officially informed the net profits average \$1,000 per night" and that "from five hundred to one thousand passengers are conveyed from this city [Norwich] every trip".

However, the *Atlantic* was destroyed a few months later. Shortly after leaving Allyn's Point, its boiler had exploded, leaving it dead in the water. After its multiple anchor chains broke, it was smashed to bits on the rocks of Fisher's Island, by a "perfect gale" on November 27, 1846. Forty two lives were lost (Renehan pg 149). The N&W still had the slower steamboat *Worcester*; and the somewhat faster steamboat *Cleopatra*, to make the Manhattan to Allyn's Point run. As an aside, a formal race between the *Atlantic* and the *Oregon* was arranged for December, 1846, with \$5,000 at stake. However, the *Atlantic* was destroyed before this could happen (Morrison, pg 328-330).

Some analysts feel that in light of the destruction of the *Atlantic*, the LIRR's board was wise in selling it to the N&W beforehand, thereby avoiding any liability resulting from the disaster. I disagree with this position. First, the LIRR's board had no way of knowing this disaster would occur. Second, the *Atlantic*,

as the LIRR's other steamboats, would have been insured (*LIRR Minute Books*, August 8, 1844).

Strangely enough, the coup-de-grace to the one remaining LIRR Brooklyn to Boston route, may have come at the hands of the builder of the LIRR's own Atlantic Avenue tunnel, William Beard.

As per Farnham, pg 113, "In February, 1847, the *New Haven* [the LIRR's one remaining steamboat] was seized for non payment of a debt to the contractor who built the Brooklyn tunnel for the Long Island Railroad. Its seizure disrupted traffic between New York and Boston, the situation being duly reported in the *Norwich Courier*".

The LIRR abandoned its last Brooklyn to Boston route a couple of weeks later, on Friday, March 19, 1847. This is probably not a coincidence. It is assumed the N&W might have temporarily provided one of its steamboats to fill the gap in the LIRR's Boston route via Allyn's Point, between the seizure of the *New Haven*, and the end of the LIRR's Brooklyn to Boston operation.

According to Foster and Weiglin, "The Long Island rail-boat-rail link ended only because Law and Vanderbilt desired it to", *Splendor Sailed the Sound* page 97.

Apparently, the LIRR's board didn't see eye to eye with George Law either. When he and three other board members retired in early 1844, they were given a "vote of thanks" by the board- with the exception of George Law- he received no thanks, as per *LIRR Minute Books* of February 20, 1844.

We have seen some of the mistakes that were possibly made by the LIRR, but let's look at a model of what they could have done differently, if they had followed Vanderbilt's plan for an LIRR/Fall River route between Brooklyn and Boston:

First, let's take travel time. According to *The Quickest Route* and other sources, the common travel time for the LIRR's rail/boat/rail route to Boston was 10 hours. However, we know from contemporary sources that the LIRR was built for what was then very high speed, and had some fast locomotives that could do the 95 mile Brooklyn to Greenport run in only 2-1/2 hours, stopping only twice to take on fuel and water. The passenger transfers between the rail cars and the steamboats were said to be exceptionally fast (*The Merchant's Magazine and Commercial Review*, conducted by Freeman Hunt, Volume 15, July- December 1845, page 489 and *A History of Long Island From Its Settlement By Europeans To The Year 1845*, By Nathaniel Prime, published by Robert Carter, New York, 1845 pg 57).

The steamboat *Atlantic* could probably hold a maximum average speed of about 18.42 mph. As an aside, the *Atlantic* is known to have beaten the *Oregon*, the latter of which, under favorable conditions, could hold an average speed of 20.5 mph, or about 17.9 knots (*The Connecticut Magazine*, Vol 10, 1906, pg 457).

This translates to a steamboat journey on the *Atlantic* of about 81.65 miles (NOAA), between Greenport, L.I. and Fall River, Mass., in about 4 hours and 26 minutes, under optimal conditions. However, to account for acceleration, deceleration and course changes, let us round this off to 5 hours.

The railway from Fall River to Boston, was a run of 53 miles. According to the *Old Colony RR Schedule of 1857*, the running time was 2 hours and 5 minutes. Let's round off this leg of the journey to 2 hours.

This gives us a total travel time of 9-1/2 hours from Brooklyn to Boston via the LIRR and the Fall River route.

To be fair though, let us add one hour (which allows 20 minutes for each operation) to account for rail to steamboat passenger transfer time, and the ferry passage from Manhattan to Brooklyn. This brings us to a total Manhattan to Boston travel time of **10-1/2 hours** via the LIRR and its proposed Fall River rail/water/rail route, under optimal conditions.

However, if the Fall River RR could have improved its average speed to match that of the LIRR (38 mph), then about 49 minutes would be saved, making this new LIRR/Fall River RR route roughly competitive in terms of time, with the ca. 1849 all rail inland route of the New York & New Haven, etc., with its west bound travel time of 8-1/2 hours, and its eastward travel time of 9 hours (from the February 1857 *Pathfinder Railway Guide*). Of course, these estimated travel times are dependent on favorable weather conditions.

We must also consider if Col. Richard Borden and his brother, Jefferson Borden, would have even attempted the creation of their (the historical) Fall River Line, in May, 1847. If the LIRR had already gone ahead and made the Boston “through route” connection with the Fall River RR two years before, in 1845, could the Bordens have found financing (\$300,000) in 1847, if the LIRR was already established in Fall River? Would the Bordens want to enter a bitter and ruinous fare war with the LIRR? Probably not.

But we don't need to speculate. The book *History of Bristol County, Massachusetts*, By D. Hamilton Hurd, 1883, pg 375 states “...being the second year (1847) of the Fall River Railroad, observing the success of the two steamboat lines running between Stonington and Norwich (Conn.) and New York, Col. Borden determined to inaugurate a similar water connection to Fall River. The capital appropriated was \$300,000...”.

The “two steamboat lines” referred to, are none other than the N&W's new (August, 1846) steamboat route between Allyn's Point and Manhattan, which was competing against the LIRR with the LIRR's own steamboats, and the N.J. Steam Navigation Company's route from Stonington to Manhattan. The Navigation Co. no doubt “picked up the slack” on the Stonington route, after Vanderbilt ended the LIRR's Stonington “through route” to Boston in 1845.

The only reason the aforementioned “two steamboat lines” were doing well in 1846 and 1847, is because the LIRR sold its steamboats to the N&W in 1846, and Vanderbilt ended the LIRR's “through route” via Stonington in 1845.

The historical Fall River Line might never of happened, and in its place could have been an LIRR/boat/Fall River RR route. However, the LIRR's board failed to follow their plan, and connect with the Fall River RR in 1845 or 1846. They had the chance, and through apparent inaction, let it slip through their fingers.

As far as the proposed LIRR/Fall River RR route from NY Harbor to Boston improving on the running time of the historical Fall River Line, circa May, 1847, Let's look at some numbers.

The waterborne portion of the historical Fall River Line route was 177 miles (NOAA). We know the Fall River Line's first steamboat, the *Bay State*, also beat the *Oregon* (*The Connecticut Magazine*, Vol 10, 1906, pg 456- 457). Let's assume the maximum average speed of the *Bay State* was also 18.42 mph, the same as the *Atlantic*.

It should be noted, that when the tides were unfavorable in Long Island Sound, the speed of these

steamboats diminished to about 17 mph. For example, the *Bay State* did the 160 mile run from NY Harbor to Newport in 9 hours and 15 minutes, with the *Oregon* trailing (*The Connecticut Magazine*, Vol 10, 1906, pg 457 and NOAA). This makes an average speed of 17.3 mph for the *Bay State* with an adverse tide.

This would give us a waterborne travel time from NY harbor to Fall River of 10.27 hours, or covering the 177 miles in about 10 hours and 16 minutes. Adding 30 minutes to account for acceleration, deceleration and course changes, we have a total waterborne travel time of 10 hours and 46 minutes, say 11 hours, if the tides were adverse.

Let us now add 2 hours to account for the rail journey from Fall River to Boston, and add an additional ½ hour to account for the boat to rail transfer

This gives us an estimated total travel time from Manhattan to Boston of **13-1/2 hours**, if tidal conditions were adverse.

If the tides were favorable, the waterborne travel time from Fall River to NY harbor for the *Bay State*, would be about 9 hours and 15 minutes. The *Bay State* had made the 177 mile run between Fall River and Manhattan, including a stop at Newport, in 9.25 hours, an average speed of 19.4 mph in favorable tide conditions (*Fall River Line Journal*, Vol 34, No 14, July 8, 1912, pg 8).

By doing the arithmetic, we get a travel time of 9 hours and 25 minutes between NY harbor and Fall River, in optimal conditions. However, let us add a half hour to account for acceleration, deceleration and course changes. This gives us a waterborne route time of about 10 hours, in optimal conditions.

Adding an additional 2 hours to include the approximately 50 miles of rail line between Fall River and Boston, at an average speed of 25 mph, gives us a total raw Manhattan to Boston travel time of 12 hours.

However, adding 1/2 hour to account for the boat to rail transfer, we have a total estimated travel time of **12 hours and 30 minutes** on the “as built” Fall River Line boat/rail route, under optimal conditions, with favorable tides.

As originally proposed, a Fall River Line using the LIRR, would have been between 2 and 3 hours faster than the historical Fall River Line.

Since all three routes (the projected LIRR/Fall River RR, the actual Fall River Line, and the NY&NH, etc. all rail route) have similar travel times (dependent upon good weather conditions and tides), the choice between routes becomes a function of other factors, such as:

1. Destination cities (New York City vs. Brooklyn, the latter, not part of New York City until 1898, was the 3rd largest city in the U.S. at the time, and highly competitive with New York City (Manhattan));
2. Aside from the LIRR's Boston express trains, which were non stop, the local traffic generation potential in between NY harbor and Allyn's Point or Stonington (the open waters of Long Island Sound vs. the very considerable agricultural/natural resource output of Long Island). For example, it is said that all of southern Connecticut was fed by farm produce grown on Long Island, and transported across the Sound by water. The farmers of Long Island could have opened up an entire new market for their vegetables and other products in the populated areas south of Boston, via a connection with the Fall

River RR;

3. Fare structures, market niche, ie. a lower fare on the less desirable route, and a higher fare on the most desirable;
4. More waterborne time vs less waterborne time, or no waterborne time.

In practical terms, the LIRR's regular operation of what was then a very high speed rail line (up to 50+ mph), must have presented a great mechanical strain on the primitive locomotives, rolling stock and track of the period. In fact, it is reported (*New York Secretary Of State Report Relative To Railroad Statistics*, 1846, pg 37) that in 1846, the LIRR spent \$23,336.55 on "repairing the road".

From the early 1850's through 1861, several of the locomotives used by the LIRR on the "Boston Express" were described as being "all worn out" and consequently withdrawn from service. In fact, it is documented that two of these engines, the *Brooks* and the *Fiske* had to be overhauled as early as 1848. It should be noted, the world's first locomotive to run over 60 mph, was the British *North Star*, built in 1837 by Robert Stephenson, for England's Great Western Railway.

Why do I think the LIRR's route to Boston ended so quickly? I think Morrison said it well "It had served their [Vanderbilt & associates] purpose" (Morrison, pg 290). The *New York Herald* of July 4, 1845 adds "The support of the opposition [Vanderbilt] is purely a Wall Street stock operation, and so long as it suits the interests of these brokers cornering Long Island, Norwich and Worcester, and Stonington Railroad stock, the boats will be regularly employed on the route" (Stiles, pg 145).

The LIRR was originally designed to provide "through route" service between NY harbor and Boston, as well as points in New England, via two connecting routes: a westerly inland route, via the N&W and B&W, and also through a southerly route, via the Stonington road and the B&P. The LIRR would benefit from the passenger and freight traffic generated to and from the territories along these two routes. The LIRR estimated that all their profit/dividends would emanate from this source, and all their operating costs would be met by the local traffic of Long Island and Brooklyn.

In addition to Vanderbilt's ruinous fare wars and route manipulations starting in 1845, I believe the LIRR failed during 1846, because much of their original through traffic was to and from other places in New England, in addition to Boston, via their connection with the Stonington road. Through its own ferry routes, the LIRR also serviced other New England cities and areas (LIRR Notice, *Brooklyn Eagle*, July 1, 1845, pg 2).

The LIRR's original "through route" revenue was coming not only from Boston, but from Providence, Newport, Stonington, New London, Norwich and Worcester (*The Merchant's Magazine And Commercial Review*, conducted By Freeman Hunt, Vol 13, July- Dec 1845, pg 490).

Once the LIRR cut their connection with the Stonington road in April, 1845 (at Vanderbilt's behest), they were supposed to immediately follow through with their original business plan, which dated at least as far back as January 1, 1845 (*LIRR Report To Shareholders*, Jan 1, 1845, pg 2), and replace this severed southerly route with the new southerly route- via the Fall River RR.

At this crucial moment, the LIRR's board had failed to, or was otherwise unable to, follow through on their business plan, and connect with the Fall River RR.

When the LIRR sold its steamboats to the N&W in 1846, the LIRR consequently lost much of its New

England traffic- which had previously emanated from Providence, Newport, Stonington and New London. The LIRR was left with only one route to Boston, via the N&W and B&W.

To make matters worse, the LIRR, as of August, 1846, faced direct competition of its own creation. This new competition was emanating from the LIRR's so called "partner" in its Boston route, the N&W. The N&W and Vanderbilt, the LIRR's former board member, and the N&W's new found mentor, were now aligned against the LIRR.

Ironically, the LIRR's new opposition were armed with the LIRR's own former steamboat fleet, including the new steamboat *Atlantic*. Starting in August, 1846, the N&W was now fed by two "through routes", and directly competing with the LIRR. First, through the N&W's new boat/rail line, via its own new Manhattan to Allyn's Point steamboat service (in collaboration with Cornelius and Jacob Vanderbilt), and secondly, via the LIRR's existing Brooklyn to Greenport rail line.

The LIRR was left with only one "through route" connection: via its former "partner" turned competitor, the N&W.

It seems that the LIRR's Atlantic Avenue tunnel contractor William Beard, delivered the final blow to the LIRR's Brooklyn to Boston route, when he had the LIRR's one remaining steamboat the *New Haven* seized in February, 1847.

As for Vanderbilt, as long as he could continue using the LIRR to injure his enemies and promote his own monopoly, he would continue to give it his support. As soon as the LIRR could not, or would not, continue to serve his ends, Vanderbilt quickly disposed of it, and moved on to other railroads that would, such as the Norwich & Worcester and the Hartford & New Haven.

Not long after, Vanderbilt abdicated his position as "Prince of Long Island Sound" (Stiles pg 146) in favor of joining the California Gold Rush. Not by carrying a pan and a shovel, but by creating an opposing steamship/land/steamship route between New York harbor and San Francisco, via a shortcut across Nicaragua.

Finally, could the LIRR's "through route" function have survived beyond the year 1847, if it had made the connection with the Fall River Railroad?

I believe if the LIRR made the Fall River connection when it was supposed to, it would have at least had a continuing fighting chance in the market place, but the LIRR would have faced heavy competition from the all rail route of the New York & New Haven, etc., starting in January, 1849.

Its certainly within the realm of possibility, that the LIRR's planned "through route" function via the Fall River RR, could have lasted well beyond March, 1847.

On the other hand, a timely connection with the Fall River RR in 1845, could have merely postponed for a few years, certain inevitable Darwinian market forces acting against the LIRR, such as loss of profit through ruthless fare wars, and an overcrowded NY Harbor to Boston/New England transportation market.

I believe the best outcome for the LIRR, would have been to maintain its "through route" via the N&W, keep the steamboat *Atlantic*, and also institute a new "through route" to Boston, via the Fall River RR. In this way, the LIRR could have maintained as profit sources, two "through routes" rather than one, and later none.

Bear in mind, that according to the *LIRR Shareholder's Report* of Jan 1, 1845, all the LIRR's operating costs were to be covered by the local traffic generated on Long Island and in Brooklyn.

However, since from mid 1845 through early 1847, the LIRR fell victim to Wall Street stock manipulations with its attendant fare wars, unforeseen competition from its “partner” the N&W acting with its former board member Vanderbilt, some possibly bad decisions by its board of directors, and last but not least, the seizure of its one remaining steamboat, we will never know.

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