Robinson Lalin was killed by a faulty Red Line car. It should have been off the tracks decades ago.

Experts warned that the MBTA's oldest cars were increasingly unsafe — just one mechanical failure away from tragedy.

By Taylor Dolven and Sarah L. Ryley Globe Staff, Updated December 17, 2022, 4:54 p.m.



Robinson Lalin's nephew, Kelvin Lalin (pictured), said the MBTA has not reached out to his family since the day Robinson was killed while riding a Red Line train. "I'm desperate for answers," he said. ERIN CLARK (CLORE STAFF

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ahomi Santana stepped off the Red Line at Broadway Station just after midnight on April 10 thinking of home and bed after a night out with friends.

As she walked along the length of the train toward the exit, she recalls catching a glimpse of a man wearing a puffy coat standing inside the train, staring through the doors as though he'd meant to get off but realized it too late. A flicker of pity flashed through her mind as she passed. "That sucks," she thought.

Then, Santana heard the train doors snap open and almost as quickly snap shut again. She looked up and saw the man had stepped out of the train and now stood on the platform. His arm was caught in the door, and he was struggling to pull it free.

She rushed to his side, grabbed his arm and tried to yank it out. A student at University of Massachusetts Boston, Santana, at 18, was already an inveterate T rider who had experienced all kinds of mishaps: trains inexplicably going dark, a Red Line derailment that sent a train crashing into the platform where she was waiting. She had freed limbs and backpacks from subway doors, and had even been stuck herself. Sometimes it took a few seconds, but the doors always opened with a little tugging. Now they wouldn't budge.

She heard the hiss of the train's brakes releasing.



To her horror, it then began to move.

"Hey!" the man yelled and banged the side of the train with his free hand. "Hey!"

Santana screamed, too. She moved alongside him, both of them frantically shouting and pounding on the train to get the attention of the driver, or anyone who could help stop the train.

But the train accelerated. Santana, fearing the gap between the platform and moving train, stepped back. The man jogged awkwardly alongside the train, shouting again and again. Then he ran and stumbled as the train gained speed. Santana stood frozen. The train whooshed into the dark tunnel, and she could see him no more.



Sahomi Santana takes two MBTA buses home from UMass Boston to avoid taking the Red Line after witnessing Robinson Lalin get dragged to his death by a faulty car door on April 10, 2022. CRAIG F. WALKER/GLOBE STAFF

Authorities later found the man's grotesquely twisted body near the tracks 75 feet inside the tunnel, his hand severed. They found his name on an ID card in his wallet: 39-year-old Robinson Lalin. He lived with his sister in Roxbury.

As news of the horror he suffered quickly spread, many T riders were struck by the thought that it could have been anyone, any of the hundreds of thousands of riders who board and disembark the T every day.

Just as disturbing was the number of things that had to go wrong, and did, for such a tragedy to happen. Red Line car doors are designed to reopen if they are obstructed. A fail-safe mechanism is supposed to prevent the train from moving unless all doors are completely closed. Train operators are required to visually confirm that passengers are clear by looking down the length of the train and at a video monitor on the station wall. And even beyond all that, maintenance workers are supposed to regularly scour each train car for mechanical failures that might endanger passengers.

None of those things appears to have worked as they should have.

Federal investigators with the National Transportation Safety Board, who continue to piece together what went wrong, have so far
revealed
that the door mechanism meant to prevent the train from moving failed. But many questions remain. One in particular looms over the incident: Why were these Red Line cars still on the tracks?

The car Lalin was riding, No. 1510, was among 68 Red Line cars—about a third of the entire Red Line fleet—that are now more than half a century old. Their expected retirement date, 1994, has been pushed back at least nine times, and they are the second-oldest heavy rail cars the Globe could find still in use by any transit system in the United States.

The Massachusetts Bay Transportation Authority maintains that its Red Line cars and all of their components, including the doors, are safe.

In a statement, agency spokesperson Joe Pesaturo said that the Red Line's cars "make hundreds of daily trips, carrying tens of thousands of riders every day without incident," and that the agency's maintenance personnel "work around the clock" to keep the fleet operating in a state-of-good-repair, while regular inspections "include the testing and maintaining of door components."

Red Line 'Silverbirds' are nation's second-oldest heavy rail cars still in use

The MBTA started rolling out its Red Line No. 1 cars, nicknamed "Silverbirds," in 1969. Back then, they were state-of-the-art. But now they are among the oldest heavy rail cars still in use in the nation, second only to the PATCO Speedline trains that run between Philadelphia and Camden County, N.J. — but those trains were fully rebuilt in 2015.

Agency	Year Built	Active Cars	Average Lifetime Miles	
Port Authority Transit Corp.	1968		74 1.9 M	
Massachusetts Bay Transportation Authority	1969		68 2.6 M	
Bay Area Rapid Transit District	1971		1 2.3 M	
	1 /4 >			

Source: Globe analysis of "2021 Revenue Vehicle Inventory" data from Federal Transit Administration • Note: Rank includes only "heavy rail" fleets. JOHN HANCOCK/GLOBE STAFF

* A Flourish table

Pesaturo said the car Lalin was riding in had a complete inspection just two weeks before the April 10 tragedy. "The door systems were tested at the time, and the test did not identify the short circuit issue which contributed to the incident," he said. "Mr. Lalin's death was a terrible tragedy."

But experts said the risk of failures escalates as cars age. For decades, agency reports repeatedly warned that the aging Red Line fleet was increasingly vulnerable to breakdowns and malfunctions, a Globe review found. And yet, through six governors, 10 iterations of Legislative leadership, and 11 T general managers, the T repeatedly postponed replacing the cars, delayed necessary upgrades, or failed

to prioritize day-to-day maintenance. When political will to approve funding for a new fleet finally jelled in 2014, the bid process appeared more designed to score political points than to ensure fastest delivery of new train cars.

"It's a failed public policy, a failure to understand the financial responsibility of maintaining and operating a safe system," said Larry Salci, a former executive at rail car manufacturing companies and transit agency head. "It's a recipe for disaster."



The Red Line "Silverbird" cars got a midlife rebuild in 1985. The project ran over six months late. The cars in the South Boston warehouse (pictured) were fitted with new parts in order for them to last another 10 years. DAVID L. RYAN/GLOBE STAFF

Car No. 1510 has at last been taken out of service, at least for now. But for perspective on the car's age, consider that when it debuted, in 1969, the world was transfixed by black and white television coverage of the first moon landing, and a brand new Brutalist Boston City Hall had just opened.

The gleaming new cars, dubbed "Silverbirds," were billed as state of the art. A news release heralded the marvel of air conditioning and the fail-safe feature to protect passengers that prevented the train from moving when doors remained ajar.

The industry standard for the life of such cars is 25 years — a span that reached until what must have then seemed the far-off year of 1994.

The T seemed mindful of the abuse and repetitive wear its Red Line cars endured, eventually traversing as many as 30,000 miles per year, doors opening and closing tens of thousands of times. And as the cars approached what was then presumed to be the halfway point of their lives in the mid 1980s, they were given a complete overhaul, with all new parts intended to keep them safe until their retirement.

But 1994 came and went. In theory, experts said, the cars could be safely used beyond that time, as long as they were meticulously maintained and upgraded.

But another overhaul on the scale of the 1980s renovation would never come. And the T didn't get around to the detailed design preparations needed for a replacement fleet for another 14 years.

Meanwhile, the T replaced parts on the aging cars, but even some of those projects were consistently delayed due to staffing shortages, according to the Boston Street Railway Association's RollSign magazine, an industry publication that tracks changes to T vehicles. A 1999 project to install sensitive door edges on the Silverbirds that would automatically reopen the doors if anything was stuck between them took until 2007 to complete, the magazine noted. Until the new edges were installed, the T put stickers on Red Line windows that cryptically read: "THESE DOORS DO NOT RECYCLE."

When the MBTA finally started working on its request for bids to replace the cars, in 2008, it took more than five years to finally release. Amid a worldwide financial crisis, other needs took priority, said former secretary of transportation Jim Aloisi.

"Buying new Red Line trains was not top of the agenda," said Aloisi, who served under Governor Deval Patrick in 2009. "There was a lot on the plate and having a fiscal crisis crowded out any meaningful action on Red Line trains."



The MBTA's Red Line saw an average of 134,000 weekday trips in October 2022, the busiest of the T's four subway lines. One-third of the Red Line's cars were built in 1969 and 1970, making them the second-oldest heavy rail cars still in use in the nation. CRAIG F. WALKER/GLOBE STAFF

Mechanical breakdowns and warnings about the dire condition of the oldest Red and Orange Line cars piled up, and the cost to maintain and replace them increased. The Red Line Silverbird cars' retirement date kept getting pushed back, to 2011, 2015, 2017, 2019, 2020, and finally — when the winning bidder for their replacement was announced — the spring of 2021.

The T was so concerned about the ramshackle condition of the two lines that it hired an outside consulting firm, STV, around 2011 to identify the most critical maintenance and repairs necessary to keep the cars safely running until they could be fully replaced.

By then, the Red Line's Silverbird cars had traveled an average of 2.1 million miles per car, and carried 242,000 riders on a typical work day.

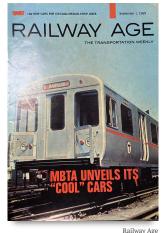
"It is STV's opinion and strong recommendation that the fleet replacement should occur without delay," it wrote in its report to the T obtained by the Globe. "Due to the age and current condition of the [cars], this fleet should be decommissioned and replaced as soon as possible."

The MBTA proposed a \$101 million rehab that would get seven to 10 more years of service out of the cars while replacements were being built, but the T didn't start on those repairs for several years. The Orange Line cars, though newer, were in more dire condition, so STV recommended they be replaced first.

As T officials put it in a report presented at public meetings that year, the subway cars were "suffering from a combination of life expired components, deferred maintenance and obsolete parts, and the situation is worsening each year these cars remain in service."

Action, however, did not keep up with the urgency of those words.

Consistently facing pressure to cut operating costs, the T made a move that might now be considered fateful. In 2012, the agency eliminated train attendants on the Red Line, whose job had been to monitor the doors. The T had already eliminated the positions on the Orange and Blue Lines in previous years following a national trend, and touted that using just one operator on Red Line trains would save the agency about \$1.6 million each year.



1969 - 1970

MBTA DEBUTS RED LINE 'SILVERBIRDS'

The Massachusetts Bay Transportation Authority begins debuting 76 new cars for the Red Line. Built by Pullman-Standard, the No. 1 fleet, nicknamed "Silverbirds," are considered state-of-the-art for their aluminum frames, air conditioning and modern safety features.



A 1969 cover of "Railway Age" featured the MBTA's "cool" new Red Line cars.



At long last, in 2014, the stars looked to be aligned to fund replacement cars. The T had finished design specification work for 152 new Orange Line cars and 132 new Red Line cars. And both the Legislature and the Patrick administration appeared committed. But there was a catch.

Patrick and the Legislature decided to include a requirement that the trains be assembled in Massachusetts.

The new requirement was politically irresistible. It would create MBTA-related jobs, likely in economically downtrodden Springfield, softening a long hardened grudge about a statewide sales tax funding the T with no tangible benefit to subway-less areas beyond Boston.

But the requirement guaranteed more delays in replacing the old cars. Instead of allowing the production of new cars at an existing factory, it forced the winning bidder to first build a new factory and train a new workforce in Massachusetts before production could even begin.

"Using a gimmick like 'We're going to build it in Springfield' prevents you from getting the things online as quickly as possible," Aloisi said. "It all politically looks great, but that's when you have to take the politics out of the equation. We're suffering because that didn't happen."

When it came time to choose the winning company later that year, the MBTA went with the riskiest option: the cheapest bidder — one that had never built a factory, trained a workforce, or assembled a train car in the United States.

The bidder, a Chinese company now-called CRRC, is among the largest rail manufacturers in the world and has built subway cars for operators in Latin America and Asia, among other places. The company vowed to do the job for \$567 million — nearly \$200 million less than the minimum independent cost estimate for the project — and to make Springfield its US headquarters, creating 250 new manufacturing and construction jobs.

Despite the risks, in 2016 the new Baker administration doubled down, ordering 120 more Red Line cars from the company, calculating that it would take less time than starting another procurement from scratch.

MBTA bets on least expensive, but least tested, company for new Red and Orange Line cars

The MBTA took a risk in 2014 when it picked CNR Corp. Ltd. to build 284 desperately needed new Red and Orange Line cars. The company had never built a rail car for a North American transit agency before. But CNR bid nearly \$200 million below the MBTA's own estimate for the project, and \$514 million below the most expensive bidder, Canadian-German company, Bombardier, which had already built at least 5,844 cars for US agencies, including 232 for the MBTA.

Company	Founding	Rail cars produced in US before 2015	Rail cars produced for MBTA before 2015	Bid for Red and Orange Line cars (millions)
Bombardier Transportation	Canada, 1942	5,844.00	232.00	\$1,080.1
Kawasaki Rail Car, Inc.	Japan, 1906	2,783.00	139.00	\$904.9
MBTA Upper Range Estimate				\$845.5
MBTA Lower Range Estimate				\$765
Hyundai Rotem	South Korea, 1977	368.00	75.00	\$720.6
China CNR Corp. Ltd. (Now CRRC)	China, 1954	0.00	0.00	\$566.6

Source: MBTA's Staff Summary for Red and Orange Line Procurement, Globe analysis of Federal Transit Administration "2021 Revenue Vehicle Inventory" data. JOHN HANCOCK/GLOBE STAFF

* A Flourish table

By the time the COVID-19 pandemic hit China in late 2019, CRRC was already months behind on its delivery schedule. The restrictions that swept the globe in the months that followed only made it harder to catch up.

After years constructing the factory and gearing up for production, the first six Red Line cars didn't go into service until December 2020, months behind schedule. CRRC was supposed to deliver four cars per month after that, according to its contract, but the T said in September that it had received just 12.

Had cars been delivered on schedule, Red Line car No. 1510 that Lalin was riding in would have likely already been replaced by the time he was killed.

Now, CRRC is expected to deliver the final new Red Line car "around the summer of 2025," spokesperson Pesaturo said.

To keep its half-century old subway cars in service in the meantime, thorough maintenance is key. The record on car No. 1510 is unclear; the MBTA declined to provide the Globe with maintenance and inspection documents.

The agency's fleet management plans say Red Line Silverbirds are brought in for preventative maintenance every 8,500 miles — but this is the same maintenance schedule the cars have been on since at least 2010. Some experts question whether that's frequent enough for cars that are now significantly older.



Governor Charlie Baker (left) and CRRC Chairman and President Chuanhe Zhou (center) unveiled a model of the Chinese company's new Red Line trains at City Hall in 2018. They were expected to hit the tracks starting in 2019, but the first cars didn't debut until December of 2020. LANE TURNER/GLOBE STAFF

"Your maintenance schedule has to be accelerated," said Carl Berkowitz, a transportation safety expert. "When I was 18 I didn't go to the doctor, now I go several times a year."

RollSign noted that car No. 1510 was taken out of service for most of 2021, apparently so worn out that it needed extensive repairs to its propulsion system. The notes give no indication of other work that might have been done to the car, including to the doors and their safety mechanisms.

The only clue to the role insufficient maintenance may have played in the incident is <u>a notice</u> the Federal Transit Administration issued to transit agencies across the country six months after Lalin's death. The notice cited a recent incident in an unspecified city involving faulty wiring in a train door that "allowed propulsion power to be applied to the train while the doors were not fully closed." Inspections had failed to spot the problem, the FTA said, admonishing agencies to perform thorough maintenance inspections of doors.

After Lalin's death, the MBTA said it inspected all Red Line cars. "MBTA personnel found all components performed as designed and did not identify any additional instances of the circuitry problem the incident car experienced," Pesaturo said via e-mail.

The MBTA suspended the driver of the train after the incident and put her on unpaid leave in June "pending final disciplinary action," Pesaturo said at the time. She did not respond to Globe attempts to reach her.



Kelvin Lalin set up a memorial for his uncle Robinson Lalin outside the MBTA's Broadway Station where he died. ERIN CLARK/GLOBE STAFF

Kenia Lalin swears she sometimes still hears the sound of her brother's footsteps on the floor of his bedroom above her living room in Roxbury. On the 10th of November, as she has on the 10th of every month since his death, she lit a candle on a table where a framed photo of Robinson rests along with a glass of water, a tradition from Honduras, where they were both born.

"For his spirit," she said in Spanish, wiping away tears.

The night he was killed, Kenia Lalin said, he called her around 10 p.m. to say he was going to see his girlfriend in Cambridge and would be home late. She left food on the counter for him. But he didn't come home.

The next day, at about 2 p.m., came a knock at the door. Two transit police officers wanted to know if she had a husband or a son with the last name "Lalin."

What the officers told her next tore her world apart.

Family flocked to Boston. Lalin's son and daughter came from New York. Robinson's nephew, Kelvin Lalin, who lives in Medford, has begun wearing a small framed photo of his uncle around his neck. He is haunted by questions:

Where was he going? How was he feeling? What could have prevented this?

"I'm desperate for answers," he said.

An evidence bag with the contents of Robinson's pockets at the time of his death - a few dollars, broken white headphones, a rosary, a homeless shelter bed ticket, and a small rock with a Bible verse painted on it - offers little help.

Kelvin wanted to see Robinson's body. He thought that might give him answers about how the uncle he'd seen just days earlier was suddenly gone. But the medical examiner warned against it; Robinson was unrecognizable.

He and Kenia remember the gregarious man Robinson was, coordinating gatherings at his sister's house to watch football on Sundays, when Kenia made his favorite machuca fish soup. Before saying goodbye to family, they said, he wrapped each in an embrace and said "te quiero" — "I love you," as if it were the last time he would see them.

All that remains is the box of ashes Kelvin picked up from the funeral home.

"I just get a box," he said. "I loved this man so much."



Sahomi Santana waited for the first of two MBTA buses during her evening commute home from UMass Boston. She no longer takes the Red Line. CRAIG F. WALKER/GLOBE STAFF

That night on the platform, Santana screamed as she watched the train disappear into the tunnel and shakily dialed 911.

Her mind rebelled; she suddenly couldn't hear anything, her sense of sound simply gone.

She wandered the platform, confused. She looked for anyone who had seen what she had seen. She peered into the tunnel, but saw only darkness.

She imagined the man had somehow survived. Maybe he had been able to free his arm and land in one of the nooks in the tunnel walls that maintenance workers use.

A police officer walking by dashed her hopes. No, she recalls the officer saying: "He's definitely dead."

The police drove her to a nearby station and she did her best to recount exactly what had happened. Even as she spoke, she fought a feeling that washed over her, that none of it was real. She stared at her hands, covered in soot from pounding on the train, proof of what she'd seen that jolted her back to reality.

She said she never heard from the T again. No phone call or e-mail or word of sympathy. The T never held a press conference about the incident and did not answer questions from the public.

1/21/24, 6:15 PM Robinson Lalin was killed by a faulty Red Line car. It should have been off the tracks decades ago. - The Boston Globe

Santana missed two weeks of college classes. Even after returning, she was so distracted she failed two classes, forcing her to change to a simpler major. She stopped riding the Red Line, racking up Lyft and Uber bills and spending hours waiting for buses instead.

She obsessively reads news of the MBTA, searching for clues about how this tragedy happened. She says she sees a long pattern of preventable T failures over the course of her life, and she asks why nothing was ever done to stop them.

And she wonders: "Why do we have to wait for someone to die to investigate?"

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