Mexico City Public Transport Resilience:

Responding to the Pandemic and Other Challenges

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In the past half a year, Mexico City's public transportation system has encountered two major crises: an explosion, causing a fire in the subway control system, and the collapse of an overpass bridge carrying a subway car filled with passengers. These two events are tragedies in their own right, but they have offered Mexico City's transit system an opportunity to respond in innovative ways and increase overall resilience.

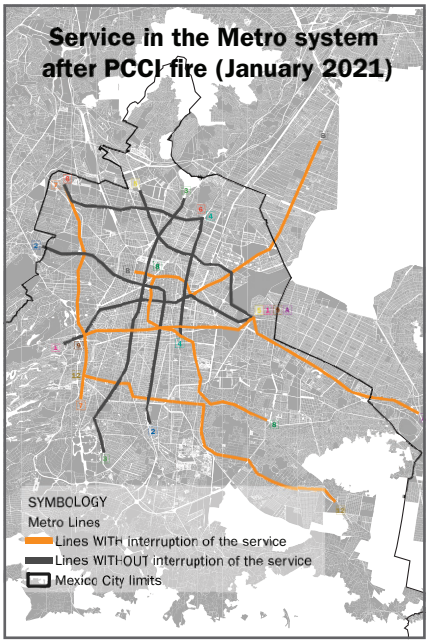
Above: A double-decker tourist bus as emergency public transport service.
Photo: Secretary of Mobility, Mexico City

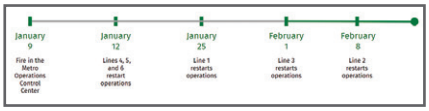
The Valley of Mexico includes most of the Mexico City Metropolitan Area, with a population of 22 million across 76 municipalities and three states. The Mexico City administered public transport system includes 12 metro lines, 7 bus rapid transit (BRT) lines, 1 light rail corridor, 2 cable car lines, 9 dedicated lane trolleybuses, and a fleet of buses. This past year brought unprecedented challenges to public transit in the Valley of Mexico. During the pandemic, private car use surged as people became wary of public transit. This left city streets clogged with cars and pollution and put pressure on transit operators to stay safe and distanced while continuing to work despite decreased ridership. In response to the pandemic and its traffic challenges, Mexico City implemented a permanent bike lane on Avenida de los Insurgentes, created more pedestrian spaces in its city center, and managed parking to provide more open space for restaurants.

NEW CHALLENGES

On January 9, 2021, an explosion and ensuing fire at the Operations Control Center of the Metro caused service suspension on six of the twelve lines. As the Metro is fundamental to city transport, several emerging services were deployed to cover the needs of passengers. These included public and privately operated buses, school buses, and double-decker tourist buses. In an interview with ITDP Mexico, Andrés Lajous, the Secretary of Mobility of Mexico City, discussed the unique challenges public transit faced this year. He explained, "The main success factor is that now there is an institutional framework that didn't exist in the past. Need might be the mother of invention, but for us, the invention led to all of these new functions: we created an integrated transport system [that had not existed before]." Some of the new suspension-induced inventions included:

- The creation of a BRT network of corridors that extended Mexibús 4 service into the Metrobús 1 lanes and stations.
- The extension of trolleybus lines, using new units that charge their batteries while connected to the wires, and operating articulated new buses for the first time.





Top: Express BRT Service in Tlahuac, Mexico City.

Photo: Secretary of the Mobility, Mexico City

Middle: Metro system map and lines affected by the control center explosion.

Photo: ITDP Mexico

Bottom: Timeline of the reestablishment of operations of the Metro System.

Photo: ITDP Mexico

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Since February 25, 2021, when the service was restored to all of the lines, Metrobús reported a 12% increase in travel compared to before the emergency; the trolleybuses reported a 20% increase in ridership. As a result of this success, some services became permanent. Lajous explained that a large part of this success was the coordination at various levels. He said, "Coordination escalated from planning to operational, bringing people from different agencies and systems together to work. A control center was established for all of the services." This lesson would be applied again later in the year.

MORE CHALLENGES MEANT BIGGER SOLUTIONS

On May 3, 2021, the elevated track of Metro line 12, in the southeast of the city, collapsed while a train was running; 26 people were killed and nearly 100 were injured and as a result. The entire line was shuttered. While the line remains inoperable, the response from the operations has been a largely positive outcome. Quickly after the collapse, the city government responded with services to keep the passengers moving—using a mix of public and private bus operators, including even tourist buses and trolleybuses. Lajous explained that the lessons learned from the explosion earlier in the year were applied to this crisis, "since it was the same actors, [that helped] but the route was more difficult to manage particularly as the corridor ran along a street with limited capacity." The existing car traffic was so bad that adding more vehicles led to increased congestion. To manage this, the city proposed an express BRT service, connecting to another busy metro route. By May 26th, less than a month after the collapse, this special BRT service began running for free with articulated buses, provisional platform stops, dedicated lanes, and real-time passenger information. By creating a dedicated BRT lane, the project was successful and expedient. Using a tactical urbanism approach, the city acted quickly. Lajous said, "The segregation of dedicated lanes was made with recycled materials existing in storage, similar to the implementation of the emerging bike lanes."

A key lesson from Mexico City is that integrated systems allow for resilience and faster responses in times of crisis. The city's ability to react quickly was thanks to its strong institutional framework encompassing many operations, which allowed it to pull from various resources quickly and without interference. The pandemic remains an ongoing crisis in the world and very much in Mexico City. While this past year has been a challenge for the city's public transport system, its adaptability, innovation, and responsiveness to new crises have demonstrated its robust resilience and solidified its ability to serve its many passengers as an essential service.