

Latin America's busiest airport needs new home

by Ken Donohue



ANDRÉ DUFOUR

Aeropuerto Internacional de la Ciudad de México, also known as Licenciado Benito Juárez International Airport (IATA: MEX/ICAO: MMMX), is conveniently located a mere 13km (8mi) from the center of Mexico City with its population of more than 19 million. Yet, hemmed in by dense residential neighborhoods, MEX has long outgrown its ability to expand beyond its current boundaries.

The original site, known as Llanos de Balbuena, had been used for aeronautical activities since 1910, when Alberto Braniff became the first to fly an aeroplane in México, and in Latin America. In 1915, Balbuena became the home of the Military School of Aviation and the National Workshop of Aeronautic Constructions, founded by the Mexican Air Force.

Construction of a small civilian airport began in 1928 and commercial operations began in 1929. Compañía Mexicana de Aviación, Aerovías Centrales, Líneas Aéreas Occidentales, and Pickwick Latinoamericana were the first users. The latter operated a 33-hour, 11-stop service from Los Angeles, which in 1929 cost \$238 (equivalent to \$3,000 today) for a one-way ticket. They were joined by Corporación Aeronáutica de Transportes, and in 1934 by Aeronaves de México (today Aerovías de México, marketed as Aeromexico).

Following much improvement, by 1939 Puerto Aéreo Central de la Ciudad de México (Central Airport of Mexico City) had been formally inaugurated.



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The Aeromexico maintenance area and T2.

Worldwide air travel took off after World War II, and in Mexico City this necessitated the building of a new passenger building in 1952. The terminal was built on the site of the original military airfield, and is still in use today as Terminal 1.

In 1956, MEX boasted four runways: 13/31 and 14/32, since swallowed up by development, and 05L/23R and 05R/23L, still in use today.

Mexicana was the first to operate turbojet service from the airport, in 1960 when it began flying the de Havilland D.H.106 Comet 4C between Mexico City and Los Angeles.

Originally known as Mexican Central Airport, it was renamed Mexico City International Airport in 1963; in 2006 the airport was named after the late 19th century Mexican president who served five terms and was the country's first indigenous leader.

While continued growth has fuelled the local economy, it has also been a curse. For 30 years, the Mexican government has considered building a new international airport for Mexico City. Instead, it kept expanding the existing terminal. Much-needed relief for MEX, which currently serves some 26 million passengers per year, was thought to have come in 2001 when the government, under the presidency of Vicente Fox Quesada, announced the location for a new airport. Decades of talk was finally being put into action.



PHOTOS: KEN DONOHUE

The new aerial gateway would be located in Texcoco [Tezcoco], 25km (16mi) from downtown, and would have a lifespan of 50 years. Compared to the existing site, it would allow three simultaneous landings and takeoffs, increasing the number of operations per hour from 54 to 138. The project, covering more than 67km² (26sq mi), was estimated at \$2 billion, including significant investment in road access infrastructure.

One positive for the authorities was that more than two-thirds of the land needed was owned by the federal government. The remaining 5,000ha (12,350ac) required was held by local peasants—community land that the government intended to expropriate as a public utility. But the groundswell of opposition was underestimated. Farmers took to the streets in protest, their actions sometimes turning violent. Faced with this hostility, the government backed down, grounding any hope that the new airport would be built.

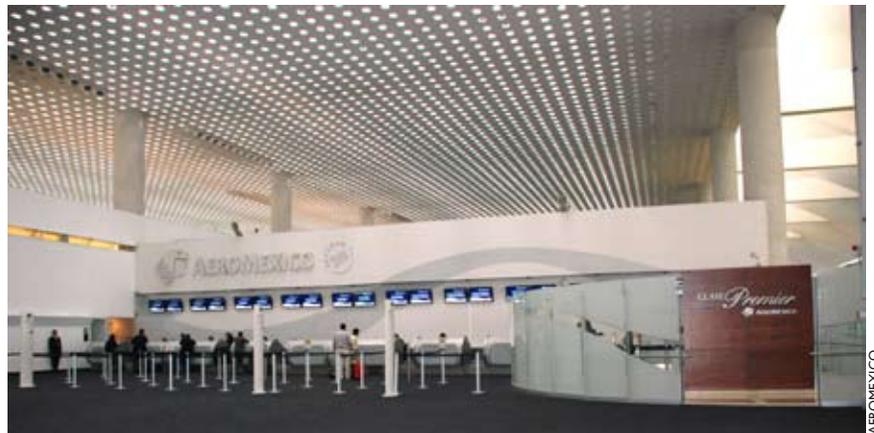
In their article ‘Social Movements in the Mexico City Airport Controversy: Globalization, Democracy, and the Power of Distance’ (published in October 2004), Diane E Davis and Christina D Rosan conclude that most villagers saw the project as serving the interests of international capital, for whom the globalization of the Mexican economy was more important than rural development. One resident who was interviewed said, “Zero percent of the residents of San Salvador Atenco [at the heart of the project] will ever fly because they are too poor; and only three percent of the people in México can afford to fly... The majority of the people in the country will never set foot in an airport, let alone a ‘plane.’”

Given this sentiment and widespread resistance it is not surprising that the scheme was shelved.

“I still have the napkin with the plans and shapes of buildings,” says Fernando Ceballos, senior vice president airport services for Aeromexico (*Airways*, April 2010), who was part of a small group that originally met over dinner to sketch ideas for the new airport.

With any new airport on hold, the immediate solution would lie in expanding the existing infrastructure, but the area was limited by the cargo area, maintenance hangars, car rental parking lots, and other airport services. Given these considerations, the Master Plan Update for Mexico City Airport recommended the construction of a new terminal at the southeastern side of the airport, and the expansion of the existing international terminal building, along with reconfigured landside access to both terminals.

Aeropuertos y Servicios Auxiliares (ASA) undertook a preliminary study to create a new terminal (T2) complex as a means of handling ten million more passengers a year



The impressive Aeromexico lobby in T2.



This view of the western end of the airport, with the thresholds of Runways 05L/R, was taken before T2 was constructed.



MEX's radar tower (right) is situated at an elevation of 7,598ft (2,315m) on top of a small hill north of Terminal 1.

while enhancing the quality of the passenger amenities as a whole. The design of the projects encompassing the construction of T2 and expansion of the international terminal began late in 2003.

Ceballos was part of the team responsible for the design and construction of T2. "I've been in the airport business for more than 20 years, so I knew what was needed," he tells *Airways*. "We wanted a piece of infrastructure that would rival the best airports in the world." The biggest challenge for the designers was playing with what little ground there was. And if that wasn't enough, just north of the terminal footprint existed a difficult yet very important neighbor—the presidential hangar. This would restrict some of the terminal's operations and dictate to a certain extent how the terminal was designed.

T2 was built in 27 months, and had to account for the difficulties of building on Mexico City's unstable earth. The city is built on an ancient lakebed and to prevent the terminal from sinking, 2,500 steel pilings were put in the ground to a depth of 60m (200ft). Designers have anticipated some sinking, so one part of the terminal is marginally higher, and over time will become level with the other.

While T2 cost \$800 million to build, another \$200 million was spent on new roads. The 3km (1.9mi)-long Aerotren automated people mover was also constructed to transfer travellers in less than five minutes between the two terminals.

Aeromexico jumped at the chance to be the anchor tenant when the airport authority asked if it would like to move to T2. While this move would be a huge benefit to Aeromexico, it came at the expense of its major

competitor, Mexicana. In some respects it made sense logistically given the location of both airlines' respective maintenance bases. "I don't think Mexicana was pleased with the decision," says Ceballos, "but a better airport infrastructure benefits all carriers. The majority of airlines, including Mexicana, operate out of Terminal 1.

Unlike experiences elsewhere in the world, there were no major problems when T2 opened late in 2007, although Aeromexico chose not to move its operations to the new complex until the beginning of 2008, after the peak Christmas season. Ceballos tells *Airways* that T2



PHOTOS: ANDRÉ DU PONT

Walkways connect the much-extended Terminal 1 to adjacent hotels.

has given Aeromexico a competitive edge. Before, there was an extensive use of remote stands, and with only one taxiway, a lot of congestion, resulting in costly delays when aircraft had to hold on the ramp or at their stands. Further bottlenecks would occur each morning when Aeromexico would move 25 aircraft from its base to the terminal. “It was a mess,” remembers Ceballos. “At times, runways were used as taxiways. We had one door to get in and out of a very large house.”

A simple change in the flow of aircraft has resulted in improved operations and shorter taxi times, which have been reduced from an average of 27 minutes before T2 opened to 15 minutes. On most days, aircraft arriving to

and departing from T1 use Runway 05L, while aircraft bound for T2 use 05R. Better management of aircraft on the ground resulted in more reliable performance, significant fuel savings, and the ability for MEX to expand the number of hourly movements from 54 to 65. This created more slots and capacity for growth.

T2 has a bright and open feel. A new 287-room NH Hotel recently opened and forms part of the impressive entrance to the departures area of the four-level building. Attractions include a new shopping center and museum, featuring artifacts from México’s proud and fascinating history.

The opening of T2 has meant a 70% increase in the number of gates available at MEX. There are 12 gates at the south finger, exclusively for Aeromexico’s domestic operations. An extension off the southern end of the terminal has been established for regional flights, with some aircraft using pad positions. The north finger has 11 gates serving international flights operated by Aeromexico and a handful of overseas carriers.

Designed by Franciscan Ceraro, the building contains elements of pre-Hispanic architecture. From both inside and outside, it looks as if tens of thousands of large domino bricks were used in the construction. In fact, the large concrete slabs contain more than 60,000 *claraboyas* (skylights), providing a lot of natural light. Indeed, T2 is very energy-efficient. During the day, only a relatively small number of lights is needed on the departures level, while opaque windows on the floor allow light to travel through to the arrivals level below.

México was ‘ground zero’ for the H1N1 influenza outbreak in 2009, which had a major impact on all aspects of the Mexican economy, but the tourism industry, including airlines and the airport, were especially hit hard. The airport saw a 40% decrease in passengers in May and June 2009, but by September



Landside corridor in the national section of Terminal 1.



Peak-time traffic. The combination of high elevation and high temperatures can create a demanding environment for aircraft operations.



Terminal 1 international area.

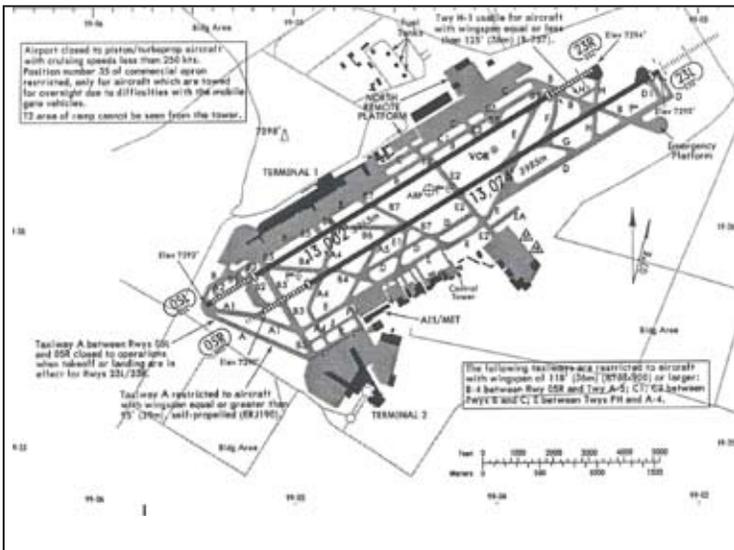
PHOTO: ANDRÉ DU-POINT

traffic had increased to normal volumes. While the virus has since migrated worldwide, México was very swift at trying to control the spread. Upon arrival, passengers are given a health questionnaire to complete. Doctors, along with special screening machines, are onsite to assess passengers who may be ill.

While much has been made of T2, the original terminal, built more than 50 years ago and last upgraded in 2006 when the international area was expanded, still serves the majority of MEX's operations—some 60%, or 15.6 million passengers. MEX handles about 61 movements per hour, and can stagger landings and takeoffs on its two runways. Most movements occur in the morning and evening, with no slots currently available between 1900 and 2300.

Given its proximity to the center of Mexico City, getting to and from MEX is relatively easy. Arriving passengers are advised to use official taxis. A stand where travellers can pay for a taxi is conveniently located outside the baggage pickup area. Depending on traffic, a trip into the city can take less than 30 minutes. An inter-city bus depot is also located at the airport. And for those interested in taking the subway—at 15 cents a trip it is the world's cheapest—a station is conveniently located a short walk from Terminal 1. It is difficult not to be impressed with the subway, not least the ease of transferring lines. And despite the warnings, I never felt unsafe on the trains.

Despite the opening of T2 two years ago, MEX is expected to reach its capacity of 32 million passengers in 2012, with no room for expansion. This begs the obvious question: what plans are in place for the construction of a new airport? It's a question so political that no-one that *Airways* spoke to would answer. If Mexico City is to live up to its billing as a Latin American hub, then the problem must soon be addressed. →



Fast Facts—Benito Juárez International Airport

IATA: MEX	ICAO: MMMX
Location:	8mi (13km) from downtown 19° 26' 10.69" N, 099° 04' 19.55" W
Elevation:	7,316ft (2,230m)
Runways:	05R/23L 12,795 x 148ft (3,900 x 45m) 05L/23R 12,966 x 148ft (3,952 x 45m)
Communications	
Tower:	118.1, 118.7
Ground:	121.0, 121.85
Departures:	120.5
Arrivals:	129.6
ATIS:	127.65
Ownership:	Grupo Aeroportuario de la Ciudad de México
Operator:	Aeropuertos y Servicios Auxiliares
Annual movements:	366,000
Website:	www.aicm.com.mx

Passenger airlines: Aeromar, Aeromexico, Aeromexico Connect, Aeromexico Travel, Air Canada, Air France-KLM, Alaska Airlines, American Airlines, Avianca, British Airways, Continental Airlines, Continental Express (ExpressJet Airlines), Copa Airlines, Cubana de Aviación, Delta Air Lines, Iberia, Interjet, LACSA, LAN Airlines, LAN Perú, Lufthansa, Magnicharters, Mexicana, MexicanaClick, MexicanaLink, TACA, TACA Perú, United Airlines, US Airways

Passenger destinations: Acapulco, Aguascalientes, Amsterdam, Atlanta, Barcelona, Bogotá, Buenos Aires (EZE), Calgary, Campeche, Cancún, Caracas, Charlotte, Chetumal, Chicago (ORD), Chihuahua, Ciudad del Carmen, Ciudad Juárez, Ciudad Obregón, Ciudad Victoria, Colima, Cozumel, Culiacán, Dallas/Ft Worth, Denver, Detroit, Durango, Frankfurt, Guadalajara, Guatemala City, Havana [La Habana], Hermosillo, Houston (IAH), Hualtuco, Ixtapa/Zihuatanejo, La Paz, Lázaro Cárdenas, León, León/El Bajío, Lima, London (LHR & LGW), Los Angeles, Los Mochis, Madrid, Mérida, Manzanillo, Matamoros, Mazatlán, Mérida, Mexicali, Miami, Minatitlán/Coatzacoalcos, Monterrey, Montréal (YUL), Morelia, New Orleans, New York (JFK), Newark, Nuevo Laredo, Oaxaca, Ontario, Orlando, Panama City, Paris (CDG), Phoenix, Poza Rica, Puerto Escondido, Puerto Vallarta, Punta Cana, Reynosa, Sacramento, Salt Lake City, Saltillo, San Antonio, San Diego, San Francisco, San José de Costa Rica, San José del Cabo, San Luis Potosí, San Pedro Sula, San Salvador, Santiago de Chile, São Paulo (GRU), Seattle/Tacoma, Shanghai (Pudong), Tampico, Tapachula, Tepic, Tijuana, Tokyo (NRT), Torreón, Tuxtla Gutiérrez, Vancouver, Veracruz, Villahermosa, Washington (IAD), Xalapa, Zacatecas

Cargo airlines: ABX Air, Aeropostal Cargo de México, Aerounión, Air Cargo Carriers, Air France, Air Transport International, Amerijet International, Ameristar Jet Charter, Astar Air Cargo, Atlas Air, Cargolux, Centurion Air Cargo, Cielos Airlines, Contract Air Cargo, DHL Aviation, DHL de Guatemala, Estafeta, Florida West International Airways, Kalitta Air, Lufthansa Cargo, Martinair Cargo, MasAir, Regional Cargo, Tampa Cargo, UPS, USA Jet Airlines, World Airways

Cargo destinations: Bogotá, Cancún, Caracas, Chicago (ORD), Cincinnati/Northern Kentucky, Dallas/Ft Worth, Frankfurt, Guadalajara, Guatemala City, Hermosillo, Houston (IAH), Huntsville, Lima, Los Angeles, Louisville, Luxembourg, Medellín, Mérida, Miami, Monterrey, New York (JFK), Paris (CDG), Porto, Quito, San Luis Potosí, Villahermosa