

Cuba's air transportation system

International airports, air cargo, passenger movement and airline services

Cuba has a well-developed and surprisingly good air transportation system. This market report analyzes Cuba's nine international airports (Fig.1), the air cargo, passenger movement, airline services, and other important data. There is also an analysis of potential future investments.

Background

Cuba has 161 national airports. Approximately 70 of these airports operate with paved runways. Of this total, seven reportedly operate runways longer than 9,900 feet, which can accommodate most large commercial jet aircraft. Another 10 airfields have paved runways of between 7,996 and 9,900 feet in length. Most of these airports can also handle large commercial jet and turboprop aircraft.

Limited official information is available on the current condition of airport terminals, buildings, runways, and emergency services. Given its economic reliance on tourism, since the mid-1990s, the Cuban Government has invested in upgrading airport terminals in the principal tourism locations. Most airports have adequate fuel and cargo handling equipment, as well as air traffic control equipment for managing movements of civil aircraft. Maintenance facilities are also available at the larger airports. In addition, Airport Rescue and Firefighting (ARFF) equipment is available at larger airfields, although the condition of the equipment is not known. Excessive vegetation growing near and around airport runways is a common problem. In particular, tree encroachment is reported as a problem for the safety of aviation operations at several airfields.



- International Airports, from West to East: Jose Marti (Havana), Varadero, Cayo Largo, Cienfuegos, Santa Clara, Cayo Coco, Camaguey, Holguin, Santiago)
- Domestic Airports, from West to East: La Coloma, Baracoa (Artemisa), Colony, Nueva Gerona, Kawama, Sancti Spiritus, Cayo Santa Maria, Ciego-Moron, Santa Lucia, Las Tunas, Manzanillo, Bayamo, Banes, Moa, Guantanamo-Los Caños, Baracoa (Guantanamo)
- Only Military Airports (the Cuban government use them from time to time in Civilian operations i.e. San Antonio south of Havana will have the largest Cargo terminal in Cuba)

US Navy airport at GITMO (Leeway Field)



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Air Transportation Overview

Although Cuba's flagship air carrier *Cubana de Aviacion* still flies a number of older Soviet make planes as well as crafts manufactured by European Subsidiaries of US manufacturers. The air transportation infrastructure is in relatively good condition, due mostly to the emphasis on tourism development by the government and the participation of the military in the air transportation sector.

Cuba also has several smaller airlines that fly domestically and operate a few international routes, primarily serving tourists. These include Gaviota, which is owned by the Armed Forces, and Aero Caribbean. These airlines fly a variety of craft, including Soviet models and the European ATR series. Cubana and the other airlines have high accident rates and are considered to be less safe than other international airlines. Cuban officials deny there are any systemic problems that are responsible for the accidents, but foreign civil aviation experts say that old planes, inadequate training and lack of attention to details in maintenance are responsible.



Cubana Aircraft

Cuba has tried to address these problems and in July 2000 signed an agreement with Spanish airline *Iberia* to help service and maintain European and US manufactured aircrafts operated by Cuban airlines at a service depot at Jose Marti International Airport outside of Havana.

Cuban civil aviation and airports are controlled by the Cuban Aeronautic Corporation (Cacsa), which is controlled by the Armed Forces. Cacsa comprises of nine enterprises and the Institute of Civil Aeronautics.

Cuban aviation officials say that in 1999, for the first time in 10 years, the country's civil aviation sector was self-sufficient, earning enough revenue through ticket sales, airport fees and other services to pay for all expenses. However, these figures did not address the results of each component of the civil aviation system. For example, the country's airlines appear to be profitable, while the airports, particularly outside of the major tourism areas, almost certainly still require government support. In addition, government officials acknowledge that government subsidies still support agricultural aviation as well as domestic passenger service for Cuban citizens.

The country's leading air traffic control center is Jose Marti International Airport outside of Havana. It handles 450 flights per day, though many are overflights of Cuban territory that do not actually land.

Domestic & International Services

Cubana de Aviacion at the end of 1999 had a fleet of 28 aircrafts, consisting of a mix of Soviet YAK-42 and US made aircrafts such as the DC-10 and European models such as the Airbus A320 series and Fokker 27.

Cubana provides a wide variety of international and domestic routes. It offers first class and business class service on some routes; however on most domestic and some shorter international flights, they do not even offer assigned seating. It carried 810,000 international passengers in 1998. The forecast for international passengers in 1999 was 910,000.

The smaller airlines such as *Aero Gaviota*, ENSA and *Aero Caribbean*, fly a number of domestic and short-haul international routes primarily aimed at the tourist market. In general, they fly modern aircrafts such as the European manufactured ATR-42, which carries 40 passengers. Cuban airlines carried about 759,000 domestic passengers in 1998, about a quarter of whom were foreign tourists. More than 900,000 passengers reportedly took domestic flights in 1999. The most popular domestic and busiest routes are between Varadero and Cayo Largo, Havana and Santiago de Cuba, Havana and Trinidad, Santa Lucia and Trinidad.

Other service companies, such as *Cubanacan Express*, charter aircrafts from these companies when required.

In 1998, a new airline called *InterCuba* formed by a consortium of Central American airlines began flying domestic routes. The flights cover six destinations: Havana, Varadero, Cayo Coco, Trinidad, Cayo Largo and Nueva Gerona. The airline is a joint venture between Grupo Internacional de Aerolineas Centroamericana, which includes airlines from Costa Rica, Nicaragua, Guatemala, El Salvador and Honduras and a Cuban state company called AeroTaxis. The airline's fleet consists of four Cessna Caravan 200B carriers, each with a capacity of 14 passengers.

Cuba also is served by more than 50 international airlines, including most major European, Latin American and Caribbean carriers. Including Cubana passengers, Cuban officials said the total number of airline passengers entering or leaving Cuba in 1999 was more than 4 million. One in five foreign visitors reportedly took at least one domestic flight.

Cubana also offers freight services though capacity is low and there have been reports of problems in handling perishable and fragile cargo. Most of the international airlines flying to Cuba also offer freight services.

Florida-based *Gulfstream International Airlines* has an agreement with the Cuban state company Cubapacks International S.A., a subsidiary of Cimex for package delivery services from the United States to Cuba. The delivery service was initially limited to packages containing food products, healthcare products, and clothing. US Company Continental Airlines has a stake in Gulfstream, which also operates charter passenger service to Cuba.

Courier Service DHL also offers package delivery service between the United States and Cuba. Neither United Parcel Service nor federal Express operates delivery services between the United States and Cuba.

Cuban Airports Review

Cuba has nine airports with international flights: Havana (Jose Marti), Varadero, Santa Clara, Cienfuegos, Cayo Largo del Sur, Cayo Coco (Jardines del Rey), Camagüey, Holguín, and Santiago de Cuba (Antonio Maceo). Recently, the new airport at Varadero opened with a capacity of 600 passengers/hour. This airport serves Varadero and the cities of Matanzas and Cardenas, as well as the eastern suburbs of Havana (it's about the same distance from Havana as Palm Beach is from Miami). A new terminal in Havana's Jose Marti International can handle 1,800 passengers/hour, and a new cargo terminal with 50,000 square feet of warehousing capacity was added to the existing cargo facility.

The airport facilities in Havana, Varadero and Santiago de Cuba are good, with a large terminal building and mixed baggage handling and customs/immigration facilities. Similarly, these airports provide food, beverage and retail services that appear appropriate for the current normal and peak capacities. In other airports, such as Holguin, the size and quality of facilities and services are generally less, with small ground-side and air-side passenger areas. These terminal buildings also tend to be in need of cosmetic improvement to provide a more attractive facility. Generally speaking, all check-in, customs, immigration, baggage handling and boarding/de-boarding procedures provide relatively smooth service.

It is apparent that Cuba has an ample supply of airports, and their geographic distribution generally allows for reasonable travel between the respective airport and its closest tourism destination. Havana, for example, is serviced primarily through Jose Marti International Airport, located approximately 30 minutes from Central Havana by car. Varadero, the large international tourism resort in the country, has its own airport, Juan Gualberto Gomez International Airport, located 15 to 30 minutes from the hotels along the Varadero peninsula. Other tourism zones, such as Santa Lucia and Guardalavaca, are within a two-hour and one-hour drive of Camaguey International Airport and Holguin Airport, respectively. Rarely, as in the case of Marea del Portillo and Pinar del Rio, are travel times in excess of two hours from an international airport to a tourism zone.

The government's efforts to expand and upgrade airport facilities have been carried out with foreign investment in some cases. A project to add a third terminal at Havana's **Jose Marti International Airport**, which was built by Canadian company INTELCAN Technosystems boosted capacity to three million passengers a year. The venture cost \$52 million plus an additional \$14 million for a new control tower. The project broke new ground because it involved a \$38 million loan from Canada's official export credit body, the Export Development Corporation (EDC).

INTELCAN also was involved in modernizing airport facilities at Cayo Largo, Holguin, Camaguey and, in particular, the beach resort of Varadero. In that project INTELCAN helped tripled the capacity from 700,000 passengers per year to more than 2 million. The project, which was completed in 1998 was financed through Canadian banks and lending agencies.

The government also has begun to explore the idea of having foreign companies operate Cuban airports. In March 2000, Spanish firm Aeropuertos Españoles y Navegación

Aerea (AENA) signed a deal with the Cuban Aeronautic Corporation (Cacsa) to manage the airport on Cayo Coco. It is the first time Cacsa has signed over the operation of a Cuban airport to a foreign partner. If the deal is successful, officials say there could be other such deals.

Half of all international visitors to Cuba arrive at Jose Marti International Airport in Havana, and with the Juan Gualberto Gomez International Airport in Varadero received approximately one-fourth of the total.

Major Airports in Cuba Used for Commercial Aviation Operations						
City	Airports	Elevation (ft.)	Longest Runway Length (ft.)	Runway Width (ft.)		
Camaguey	Ignacio Agramonte International	413	9,842	180		
Cienfuegos	Jaime González	100	7,874	135		
Havana	José Martí International	210	13,123	148		
Holguín	Frank País	348	10,154	164		
Santiago	Antonio Maceo Intl	225	13,123	148		
Varadero	Juan G. Gómez Intl	213	11,483	160		

Table 1. Major Airports in Cuba

Air Traffic Control System in Cuba

The Cuban Air Traffic Control (ATC) system is relatively modern for a country with limited resources, a reflection of the government's interest in encouraging tourism. Cuba has full radar coverage over its flight area, with multiple radar sites. Most of the ATC equipment is Canadian and French. The Air Traffic Control Center (ACC) located on the grounds of the José Martí International Airport in Havana handles all on route flight service for the island. In addition, the Havana ACC controls the approach (landing and take-off) for all Cuban airports that conduct Instrument Landing System (ILS) or other Instrument Flight Rule (IFR) approaches. It is a dual-use facility, with three on route air traffic sectors, the approach to José Martí, and one military operations sector.



Jose Marti International Airport (Havana)

The Havana Center is similar in size to a small U.S. approach facility such as the one located in Ft. Myers, Florida, but with the additional responsibilities of an on route center. Any aircraft that flies through (overflies) Cuban airspace is assessed an overflight fee for use of the air navigation services. Overflight fees generate a significant amount of revenue for the Cuban Government, given Cuba's advantageous position as a direct route between the eastern U.S./Canada and Latin American/Caribbean air travel. The Havana ACC has a dedicated position to track and record overflight aircraft.

In 2003, the IACC completed construction of a newly renovated ACC building on the José Marti airport surface in Havana. The new center, designed and built by INTELCAN Technosystems, Inc. of Canada, is purported to have a modern automated Air Traffic Management (ATM) system with Voice Communications Control Switching, Radar Processing and display, Flight Data Processing, Air Traffic Network Message Switching, VHF Ground to Air radios, an intercom and recording and а nationwide systems, Data Telecommunications Network. The ACC uses off-the-shelf computers and monitors, with an advanced ATM software package customized to meet the operational requirements of the Havana ACC. INTELCAN maintains that the software has been designed to allow for a seamless transition to a new satellite-based Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) environment, which Cuba expects to transition to the next few years.

Separation standards in Cuban airspace are greater than those applied in the U.S. Havana ACC maintains a minimum of 10 nautical miles between aircraft horizontally, rather than the five or three miles in the United States.

The FAA has a working relationship with the Cuban Air Traffic Controllers in Havana. Although most air traffic controllers are civilians, the Cuban ATC system functions much like a military organization. The controllers wear uniforms and generally work 10-12 hour shifts.

Safety Oversight/Flight Standards issues will be among the most complex, most time consuming, and potentially most costly to resolve in an environment with the expected dramatic increases in air traffic. Pressure on the IACC to increase operations to meet expected demand (both arriving and departing Cuba) may be far beyond current capabilities.

National & International Air Traffic

Air transportation within Cuba is somewhat limited due primarily to the lack of available aircraft. The limited number of flights is frequently full, indicating a potential to increase capacity and frequency of loads. Regular domestic flights operate at more than 98% capacity throughout the year. A further six to ten aircraft are required to provide satisfactory service for the current peak demand. There are 19 cities in Cuba with scheduled flights, and approximately 9 million out of 11.5 million Cuban inhabitants live less than 90 minutes from an airport with regular scheduled flights. The cities are: Baracoa, Bayamo, Camaguey, Cayo Largo, Ciego de Avila/Moron, Cienfuegos, Guantanamo, Havana (Jose Mari International Airport), Holguin, Manzanillo, Moa, Nueva Gerona, Santa Clara, Santiago de Cuba, Varadero/Matanzas (Juan G. Gomez Airport), Victoria de las Tunas, Cayo Coco.

Air traffic into Cuba is mostly through international airlines (other than the US flag), chartered aircraft and recognized charter carriers. Of the approximately 3,050,000 tourist arrivals in 2014, 87% arrived on non- Cuban airlines or chartered aircraft, with the balance being on Cubana and related companies. The latter are typically short haul trips, with feeder markets being Nassau (Bahamas) and Kingston (Jamaica), San Jose (Costa Rica), Mexico City, Guadalajara, Monterrey, Merida and Cancun (Mexico), Curacao (Dutch Antilles), Caracas and Maracaibo (Venezuela), Santo Domingo and Puerto Plata (Dominican Republic) and Panama

City (Panama).

Long-haul flights operate between various airports in Cuba and feeder airports in Toronto Montreal and Quebec City (Canada), Bogota (Colombia), Amsterdam (Holland), Berlin, Cologne, Dusseldorf, Frankfurt and Munich (Germany), Gatwick and Heathrow (England), Lima (Peru), Madrid (Spain), Milan, Rome & Naples (Italy), Paris (France), Buenos Aires (Argentina), Sao Paulo (Brazil), Santiago (Chile), Vienna (Austria), Moscow & Saint Petersburg (Russia) and Zurich (Switzerland)

Description of Main International Airports

José Martí International Airport is located 15 km (9 miles) southwest of Havana, Cuba, and is a hub for Cubana de Aviación, Aerogaviota, Aero Caribbean, and Latin American hub for Aeroflot Airlines. It is Cuba's main international and domestic gateway, and served more than 5 million passengers during 2014.



Jose Marti International Airport

There are currently four passenger terminals in use at the airport, plus a freight terminal (planned to be moved to San Antonio AB, 9 miles to the SW, next year). Terminal 1 is used primarily for domestic flights. Terminal 2 opened in 1988, primarily for charter flights to the United States. Ten years later on April 27, 1998, the International Terminal 3 was opened by Canada's then-Prime Minister, Jean Chrétien, and former Cuban president, Fidel Castro. International Terminal 3 offers many modern facilities and jetways that the former international Terminal 1 did not provide. Terminal 5 is operated by Aerocaribbean.

The airport is operated by Empresa Cubana de Aeropuertos y Servicios Aeronáuticos (ECASA). There are important plans for re-designing and modernize Jose Marti Airport, serving about 3 million populations, several of the most important tourist areas and the origin of almost 50% of the Cuban-American or their ancestors. Havana's metro area is also the largest and most developed industrial hub in Cuba.

Airlines	Destinations	Terminal
American Airlines1	Miami, New York–JFK, Tampa	2
Delta Air Lines1	Atlanta, New Orleans, Miami	2
Eastern Air Lines ¹	Houston-Intercontinental (begins August 12, 2015). Miami	2
JetBlue Airways1	Fort Lauderdale, New York-JFK, Tampa	2
Sun Country Airlines1	Miami, New York–JFK, Tampa	2

Airlines	Destinations	Terminal
Swift Air1	Baltimore (begins 30 September 2015), Orlando, San Juan	2
United Airlines1	Miami	2

Table 2. Charter Flights.

1All Special Authority Charter flights are operated by Gulfstream Air Charters, ABC Charters, Marazul Charters, CTS Charters and C&T Charters. This also applies for the rest of Cuban airports

Juan Gualberto Gómez Airport also known as Varadero Airport is an international airport serving the tourism resort of Varadero, Cuba and the province of Matanzas. The airport is located closer to the city of Matanzas than to Varadero. The closest airport to Varadero is Kawama Airport. In 2014, the airport handled 1.8 million passengers, making it the second busiest airport in Cuba after José Martí International Airport in Havana.



Juan Gualberto Gomez Airport

Juan Vitalio Acuña Airport is an international airport serving Cayo Largo del Sur, a small coral island in Cuba. It is located within the special municipality of Isla de la Juventud.



Juan Vitalio Acuña Airport

Jaime González Airport is an international airport (shared with Cuban Air Forces facilities) that serves Cienfuegos, a city on the southern coast of Cuba, and capital of the province. It operates scheduled flights of Cubana de Aviacion (from Havana, Montréal-Trudeau, Santiago Cuba, Torontode Pearson), Sunwing Airline (from Montréal-Trudeau, Toronto-Pearson) and charter flights of American Eagle, Sky King and Miami Air, all from Miami.



Jaime Gonzalez Airport

Abel Santamaría Airport is an international airport (and the second largest Air Forces facility in the country), serving Santa Clara, the capital city of the Villa Clara Province in Cuba.



Abel Santamaria Airport

Jardines Del Rey Airport is a brand new (2002), airport situated on the Island of Cayo Coco, Cuba. The airport is the only one in Cuba that has a shared administration with Aena, a Spanish company that manages 47 airports in Spain, twelve in Mexico and three in Colombia. Thousands of Canadian and European tourists pass through the airport every year. The airport serves both important resorts of Cayo Guillermo and Cayo Coco, with a very fast development of new hotels and other tourism facilities. The airport at Cayo Coco also connects the cities of Moron and Ciego de Avila.



Jardines Del Rey Airport

Ignacio Agramonte International Airport is an international airport in central Camagüey Province, Cuba. It serves the city of Camagüey and the resort village of Santa Lucía. A long time working airport had its best days during the 1950's when it was the stop and refueling places for most of the flights between the US East Coast and South American destinations. The city of Camagüey is the third largest in the country, with a substantial agro-industry. About 12% of Cuban-Americans are from Camagüey or with ancestors from this province of Cuba.



Ignacio Agramonte International Airport

Frank País Airport is an international airport that serves the city of Holguín and the large tourism resort of Guardalavaca in Cuba. It shares its facilities with the Cuban Air Force Eastern Command.



Frank País Airport

Antonio Maceo Airport is an international airport located in Santiago, Cuba. It has the longest runway in Cuba (13,130 ft.). Located in the second city of Cuba, serving more than a million inhabitants. More than 16% of the Cuban-Americans were born (or their ancestors are from) Santiago city and its hinterland in the former Oriento province of Cuba.



Antonio Maceo Airport

Future Plans & Forecast

Following changes in Cuba and the legalization of free traveling from the USA to Cuba, we forecast several phases. Initially, Cuban-American visitors to Cuba are likely to be a major component of passenger traffic. In the longer term, other U.S. visitors, European tourists connecting through Miami, and Cuban visitors to U.S. will make up a large amount of the traffic.

Havana is as close to Miami as Miami is to Orlando. The

most distant parts of Cuba are about as far away as Atlanta is from Miami. There are 500,000 Cuban Americans reside in Dade County, Florida; their combined incomes are equal to the entire Gross National Product of Cuba which has a population of 11 million persons. Another 500,000 Cuban Americans reside elsewhere in the United States, primarily in the New York-New Jersey area, San Juan, Chicago, Los Angeles, New Orleans, and Tampa.

Delta, U.S. Air, American, Iberia and *Cubana* are all expected to jump into this market. Within a few months, traffic levels of 2-3 million passengers a year will be achieved using frequent service by wide-bodied aircraft. These large carriers will be necessary due to the amount of Miami-Cuba baggage that is anticipated.

In the aftermath of change it is likely that there will be a sudden increase in exports to Cuba from the United States. As U.S. markets open to Cuban products, however, imports from Cuba will grow due to Cuba's geographical proximity. Once shipping lines are re-established, they may carry a large amount of cargo. Nevertheless, air cargo growth is practically limitless.

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