

Cuba's Maritime Transportation, Ports and Related Facilities

Most transactions involving Cuba, including private and public investment in maritime transportation, continue to be prohibited. This Market Report provides information regarding strategic Cuban seaports, including, but not limited to accessibility, stage of development, transportation and other potential trade and commercial issues involving the main ports in Cuba (fig.1).

Background

In 2015, Cuba had a population of more than 11 million people. The land area is about 111,000 square kilometers (44,206 square miles), which is comparable to the population and land area of the U.S. State of Ohio. In 2013 (the latest year for which data were available), Cuba's per capita gross domestic product (GDP) at 6,985 (Nominal GDP) at purchasing power parity (PPP) in 2010 was \$10,200; this amount was three times less than that of Mississippi, which was the U.S. State with the lowest per capita GDP (United Nations Economic Commission for Latin America and the Caribbean, 2014; U.S. Central Intelligence Agency, 2014).

Cuba is the largest island of the Caribbean with a distance between the eastern and western extremities of the island of approximately 750 miles, which makes the island longer than the State of Florida. Cuba's coastline of approximately 2,200 miles has a large number of good harbors, chief among which are the "Pouch Shaped" or bottlenecked harbors, which have narrow entrances but commodious anchorage. The main harbors of this type are Bahia Honda, Cabañas, Mariel, La Habana, Nuevitas, Puerto Padre, Nipe and Tanamo on the north coast, and Guantanamo, Santiago de Cuba and Cienfuegos on the south coast. The principal open harbors are Matanzas and Cardenas.

There are a total of 70 ports in Cuba. Ten of these can be categorized as major, including Havana (60% of all cargo), Matanzas, Santiago de Cuba, Cienfuegos, Nuevitas, Caibarien, Guantanamo, Cardenas and Mariel (in full development to be soon the largest port of the country). Thirty-one ports, mostly in the northern section of the island, have cargo operations. Fifteen of these ports account for 97% of all cargo transported.



Figure 1: Map of Cuba's Main Ports.

Cuba's Terminals & Ports

During the last 30 years, the Cuban Government has used a strategy of abandoning certain older port facilities and concentrating its resources on improving and developing new port infrastructure. The areas identified for development are the ones considered to benefit the Cuban government's commercial objectives, which include the movement of specific goods through seven regional port agencies, and which in some cases may represent as many as 12 different ports as is the case with the east regional port. The net effect is that some ports have been designated as import only or export only or transshipment centers or "specialized" ports with various infrastructure and equipment results.

For example, investments, which took place in the Port of Matanzas, allow for 150,000-ton oil tankers to discharge crude oil. The crude oil is transferred through oil pipes underground to refineries located in Cienfuegos and La Habana, while substantial dredging activity now allows for large coastal barges to satisfy the import requirements of a growing region in the Isle of Pines, from Cienfuegos to Nueva Gerona. By far Cuba's largest dilemma, concerning its ports, is the accelerated deterioration of its equipment due to the lack of spare parts and funds for maintenance and replacement units. Although purchased from Japanese manufacturers, Cuba's fleet of forklifts is at least 10 years old. The cranes are of Japanese, Swedish, Finnish, German, Hungarian and other east European, including Russian, origin. Trucks for the movement of material are unavailable due to the lack of fuel and general disrepair.

SUMMARY – CUBA'S MAJOR PORTS				
PORT	DRAFT	MAX. LENGTH	#BERTHS	#PIERS
		ALLOWED		
MARIEL Santa Lucia, Bahia Honda, Cabanas	31'	677'	8	15
LA HABANA	32'	654'	15	34
MATANZAS	38'	791'	5	8
CARDENAS	17'	560'	1	2
ISABELA DE SAGUA	18'	560'	3	4
CAIBARIEN	35'	654'	0	0
NUEVITAS Jucaro	34'	638'	6	10
PUERTO PADRE Manati	25'	556'	3	4
ANTILLA Vita, Banes, Preston, Felton, Nicaro, Tanamo	22'	608'	2	4
MOA Punta Gorda, Baracoa	40'	755'	2	3
GUANTANAMO Boqueron	19'	560'	1	2
SANTIAGO DE CUBA	36'	700'	8	16
MANZANILLO Pilon, Niquero; Ceiba Hueca; Media Luna	30'	589'	0	0
GUAYABAL	35'	unlimited	1	2
CIENFUEGOS Casilda	38'	677'	11	14
NUEVA GERONA	18'	425'	5	9

The big exception is the port of Mariel that received a \$1 billion investment to modernize the port and create a special economic zone converting Mariel as the only really modern Cuban port. Four huge gantry cranes tower over the container terminal, which can handle 1 million containers a year. Huge

refrigerated chambers, necessary for meat shipments, were installed in the economic zone this month. Cuba is actively completing the double track railway in the area, connecting the port of Mariel with Havana, Cienfuegos, Santiago de Cuba and other major areas of the country. Santiago de Cuba port is starting now a comparable process after an agreement with several Chinese companies was agreed and a China's Government \$150 million was granted.

Although Cuba's transportation network of roads, rail, air and sea have seen very little capital improvements since 1990, the transportation infrastructure is considered adequate to handle the intermodal requirements of the country. However, once a change towards a market-oriented economy is effected, and trade relations are restored with the United States, Cuba will need to address over \$1 billion worth of estimated needed capital improvements. An estimated additional \$1.5 billion in intermodal projects is required to enhance access to the country's road and rail system.

Historical Perspective on Cuba's Terminals & Ports

Cuba has 21,118 miles of highways. Of these, 6,290 miles are paved and 7,391 miles have a gravel surface. There are only 800 gas stations in the island of which 120 are estimated to be in Havana. The lack of access to gas stations will force Cuba to concentrate new light industry and labor intensive projects, such as industrial free zones within a 15 mile radius of target ports until that segment of the infrastructure is better developed. Based on recent published statistics, 72% of the total value of goods transported within Cuba was by road, primarily over short distances. Rail accounted for 15% and water for 11%. The volume of goods transported over the roads emphasizes the importance of the road infrastructure to the Cuban economy.

With 2,626 miles of standard gauge track, Cuba's railways present unique opportunities for cargo transportation, with both intraport and interport connections. The sugar industry currently uses approximately 3,000 miles of railways (most of it narrow gauge).

In post-embargo Cuba, some of the nation's ports are likely to reorient their operations toward trade with the United States quickly as Cuban products move into new markets and US products are imported to Cuba. In a process of 5-6 years after the embargo there is estimated about 20 million tons of dry cargoes in both directions USA – Cuba.

Cuba's Maritime Transportation

In Cuba there are a number of entities that are devoted to the international maritime transport, which covers all necessary aspects to carry out import and export trade operations, including insurance of all kind. The entities which offer transport services can be: 1) Purely Cuban enterprises (state owned and/or mercantile societies), 2) Cuban entities with joint capital and/or in economic associations, 3) Foreign companies branches based in Cuba devoted to maritime transport, be Shipping Companies, Carriers, Protector-Agents, Chartering Agents, etc. Low-cost barge transport was a traditional Cuba's transport system complementing land-based transport.

Due to the importance of linkages between Cuba's maritime assets and other modes of transport on the island, the need to rapidly evolve intermodal aspects of its transport system is critical, mostly the port-railway operations. Additionally, if Cuba is to conform to the "24 hour manifest rule" mandated by

U.S. Customs Service, more investments in technology and training will also be required.

Infrastructure development and maintenance is capital intensive. For nearly 30 years, Cuba received large subsidies, principally from the former Soviet Union, and mostly via barter sugar-for-oil agreements. Since the Soviet Union's collapse in 1991 and Cuba's loss of what had been a \$6 billion a year subsidy, Cuba's state-planned economy has had difficulty generating sustainable revenue. Capital shortages are reflected in a pattern of deferred maintenance and a lack of renewal of the country's infrastructure, including its ports.

Cuba's Merchant Marine

As one of the country's cash-strapped state enterprises, it can be expected that the country's merchant marine sector will welcome foreign capital. Privatization of Cuba's merchant marine in whole or in part can be expected at some point. In mid-2013, Cuba placed orders for a dozen new ships in Chinese shipyards. The orders were seen as an indication of the recovery of the country's once large merchant marine.

In 1991, there were 406 Cuban-flag vessels reported by the Lloyd's Maritime Information Services and Cuba managed a number of foreign-flagged vessels as part of its fleet. But economic woes and the end of Soviet support took a toll and during the early 1990s, the government leased much of the merchant fleet to western companies, and scrapped the oldest ones. The government also restructured the bureaucracy controlling the merchant marine and shipping industry, dismantled the Ministry of Merchant Marine and Ports and at the same time created a number of autonomous enterprises with considerable administrative and financial independence, including the right to negotiate joint ventures. The government dissolved the shipping line Lineas Mambisas and replaced it with a number of separate shipping firms. It also significantly restructured cargo consignment company Consignatarias Mambisas and allowed other companies to compete in the same business.

Today the Cuban merchant marine is profitable again and operates more than one hundred ships, of them 80 are registered in Cuba, with a total dead weight of 1,052,900 tonnes and an average age of 15.2 years (lower than the world average). It is organized into five specialized shipping companies:

1. **Poseidon.** Dedicated to the transport of general cargo from any origin or destination. Their ships are of tonnages ranging between 15,000 and 24,000 dead-weight.
2. **Friomar.** Specialized in refrigerated ships or different types, including Reefers and Freezers type. Devoted to the market of perishable products worldwide.
3. **Sea America.** It operates multipurpose vessels which covers the Caribbean area. Forb dry cargo (general, mass, bulk, containers). Their ships are from 5,000 and 12,000 tons of dead weight.
4. **Petrocost.** Its specialization is the transportation of liquid cargo calling in Cuba's and international ports. The tankers are between 2,000 and 60,000 t of dead weight, transporting petroleum and its derivatives, molasses, edible oils, lubricants, LPG, chemicals, other.
5. **Carimar.** This company operates medium-capacity container ships covering regular lines in the Atlantic Ocean and the Caribbean.



They are grouped in the Shipping Association of Cuba (Antares), which has another seven organizations dedicated to provide different services, such as freight forwarders for cargo, brokerage and chartering of ships, naval inspections, consulting, hiring crews, among other activities. The five shipping companies have the quality certificate management (ISM), endorsed by the Lloyd's Register of Shipping.

Table 1: Distances Between Selected U.S. Ports and Havana (In nautical miles)

Miami - Port Everglades	227
Tampa	308
Jacksonville	529
New Orleans	599
Charleston	642
Houston	767

Cuban Ports – To Compete For Caribbean Transshipment

As part of its first special development zone, Cuba is completing a new container-handling port in Mariel Bay. The hope is that the facility will be able to attract significant foreign businesses, in addition to benefitting from an increase in regional transshipment volumes once the Panama Canal expansion is completed in 2015. However, we caution that the port will face considerable competition in this endeavor from other Caribbean ports, and the substantial investment being made in facilities the length of the US East Coast.

Cuba established a special development zone on 466 square km at Mariel Bay, to the west of the capital city Havana (Habana). The zone will provide significant tax breaks for companies setting up businesses there, and will, as described by the Opportunities Portfolio offered in October 2014, 'increase exports, the effective substitution of imports, develop high-technology productions and local development projects', as well as contribute to the creation of new jobs.

The centerpiece of the zone is the new container port, which has substituted the former primary container-handling Cuban facility at Havana. With the ability to handle 1,000,000 twenty-foot equivalent units (TEUs), the port will be considerably larger than the port of Havana, which has an annual handling capacity of just 350,000 TEUs. The hope is that the new development zone will encourage foreign businesses to set up there, so generating considerable box volumes of their own, not necessarily bound for the domestic market. The newly opened Khalifa Port in Abu Dhabi, linked to the Khalifa Industrial Zone Abu Dhabi (KIZAD) is one successful example of such an endeavor.

This expectation appears to rest somewhat on two potential developments. First is that US trade embargo on Cuba will finally be lifted, supported for the December 17th, 2014 statement by President Obama and Castro, as well as subsequent progress in that direction. Second, the Cuban economy has been starting to be freer and more productive in recent years, with the encouragement of small businesses, still in its initial phase.

If trade between the USA and Cuba was renewed, then the new Cuban port could serve as a transshipment facility for the US East Coast. This is becoming a key issue in the region, as the widening of the Panama Canal's locks, due for completion in 2015, will enable vessels capable of carrying as many as 12,500 TEUs (compared to the current maximum of 3,500 TEUs) to pass through the channel. Shipping companies are expected to take advantage of these new economies of scale, and ship directly to the East Coast. However, US East Coast ports are not capable of accommodating these large ships at present. While they are desperately seeking funding and carrying out works in order to make sure they are ready, Caribbean facilities are also seeing opportunities to establish themselves as transshipment hubs for the region. The new Cuban port will have a draught of 15 meters, sufficient for larger vessels.

Cuba is not the only country looking to capitalize on the expected influx of tonnage into the Caribbean. The Bahamas Freeport Container Port (FCP), the largest container port in the area, is investing in new cranes and extending its berth to 1,536, and the Dominican Republic's port of Caucedo, the second largest, is also investing in preparation for the completion of the Panama Canal expansion. In March 2011, the second phase of DP World's Caucedo Multimodal Port came online. The project boosted the facility's handling capacity by 25% to 1,250,000 TEUs, adding 300m of deepwater berth and new equipment with two broad yield mobile cranes, which added to the existing five Post-Panamax gantry cranes at the port.

In such an environment the port at Mariel Bay may have difficulties maximizing its new capacity for some time, especially should the relaxation of US sanctions not be forthcoming as soon as might be hoped. Nevertheless, we acknowledge that the port is part of a major investment, financed mostly by a government of Brazil loan of US\$1bn; it will have a substantial rail and highway infrastructure attached. Further, the port will be operated by a major international player - PSA International - which will bring its global expertise and connections to the Cuban port.

The construction of a new multi-purpose terminal at the Guillermón Moncada port, in the city of Santiago de Cuba, began on January 13, 2015 on 24.7 acres to the west of the city. The project is building – in three years – a multi-purpose terminal with modern technology, able to operate ships of up to 40,000 tons, a 760 foot dock, three cranes, two covered warehouses and an open air area for containers. The bay is dredged 45 foot, which will enable approximately 565,000 tons of goods to be processed per year. About 42,000 tons of obstacles (47 wrecked vessels) are being extracted from the bottom of Santiago de Cuba bay in order to improve the entrance of large vessels to Santiago bay. It is in progress using the floating crane Magnus XII, able to hold up to 500 t from depth of 165 feet. The phase 1 of the project is budgeted at \$120 m USD, on a government of China loans. Several loans from private Chinese companies will follow suit.

Recent Developments in Cuba's Repair & New-Built shipbuilding activity

Established in January 1995, Damex Shipbuilding & Engineering is located in the well-protected natural bay of Santiago de Cuba. No swell occurs and even during the most adverse weather conditions the vessels are berthed safely. The yard is equipped with one slipway provided with transverse parking facilities for vessels and a lateral slipway for vessels of up to 330 feet in length while carrying out all sorts of repair jobs. Very good supply of spare parts and equipment, high-pressure water cleaning of the hull below the waterline, antifouling restoration to shaft alignment and the overhaul of engines and

gearboxes. Apart from a wide range of Damex Shipyards' own designs, all kinds of special crafts in steel or aluminum can be built, according to customers' projects

Casablanca Shipyards at Havana bay, provides naval repair and construction services; repairs and maintenance of fuel storage tanks; production of bottled oxygen and acetylene and all the technical services satisfying the needs of domestic and international clients both in the naval and industrial sectors and carrying out the following objectives: a) diversification and extending services to new export markets b) access to advanced technologies, replacing a large part of them for their operations c) developing linkups with other products of national economy goods and services. It has the largest dry (up to 540 foot long) and floating docks in Cuba. CDC S.A. is a company providing naval repairs and construction services; repairs and maintenance of fuel storage tanks; production of bottled oxygen and acetylene and all the technical services satisfying the needs of domestic and international clients both in the naval and industrial sectors.



Cruise Tourism & Ferries

During 2014, cruise ships traveling from Jamaica and Bahamas, conducted 175 calls in Cuban ports, of them in Havana and Cienfuegos were registered 53 visits each. In Havana the cruise ships (of medium sizes because of harbor restrictions) use the Sierra Maestra 1 Pier and in Cienfuegos the Olimpia Medina Pier. A proper terminal is being built at downtown port area of Cienfuegos in a very picturesque location. The cruise ships are also calling the ports of Santiago and Antilla. Ferries carrying Cuban and American passengers will soon be sailing between Florida and Havana for the first time in more than 50 years, after the Treasury Department on Tuesday May 5, 2015 issued licenses to at least two companies as part of the improvement of relations between both countries. The Companies are Baja Ferries and Havana Ferry Partners. The number of visitors from United States to Cuba from January 1st till May 9th, 2015 grew 36% with respect to the same period of 2014, changes that will have a substantial impact in the passenger sea borne activity.



Estimated Cargoes in a Post – Embargo Cuba

Cargo	Y 1 *	Y 2 *	Y 3 *	Y 4 *	Y 5 *	Y 6 *
Sugar (bulk and bagged)	400	500	600	600	600	700
Alcohol & Molasses	200	200	200	300	300	300
Fertilizers, Pesticides, other supplies	200	200	300	300	400	400
Construction Materials, all	1,000	1,500	2,500	6,000	7,500	7,500
Foodstuff all	600	750	750	1,000	1,200	1,500
Wood, pulp, paper	400	500	500	500	1,000	1,000
Equipment, Machinery, cars, other	600	750	750	1,000	1,000	1,000
Oil & Gas products	500	2,500	2,500	4,000	5,000	5,000
Miscellaneous (ores, coal, scrap metal, many other)	1,500	2,000	2,000	3,000	3,000	4,000
Total (est.)	5,600	8,900	10,100	16,700	20,000	21,400

***Thousand mt.** // A part of these cargoes will be in containers, most will be loose or general cargo. Trans- shipped cargo will be mostly in containers

PORT	Distance (Miles)	Airport	Bunker	Container	General Bulk Cargo	Oil Tanks	Other Liquids	Ro/Ro	Shops	Dry Docks
Bahia Honda	53.18				X				X	
Cabanas					X	X	X		X	X
Mariel	28.04	X	X	X	X	X	X	X	X	X
Havana	0	X	X	X	X	X	X		X	X
Matanzas	50.26	X	X		X	X	X		X	X
Cardenas	73.57	X	X		X	X	X		X	X
Isabela	150.74	X	X		X		X			
Caibarien	191.80				X		X		X	
Nuevitas	345.35		X		X	X	X	X	X	X
Gibara	407.23	X			X		X			
Antilla	458.74		X		X	X	X		X	
Moa	515.69	X	X		X	X	X		X	
Santiago de Cuba	597.24	X	X	X	X	X	X	X	X	X
Manzanillo	682.54	X	X		X		X		X	
Cienfuegos	505.08	X	X	X	X	X	X	X	X	X
Nueva Gerona	325.56	X	X		X	X		X	X	

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