

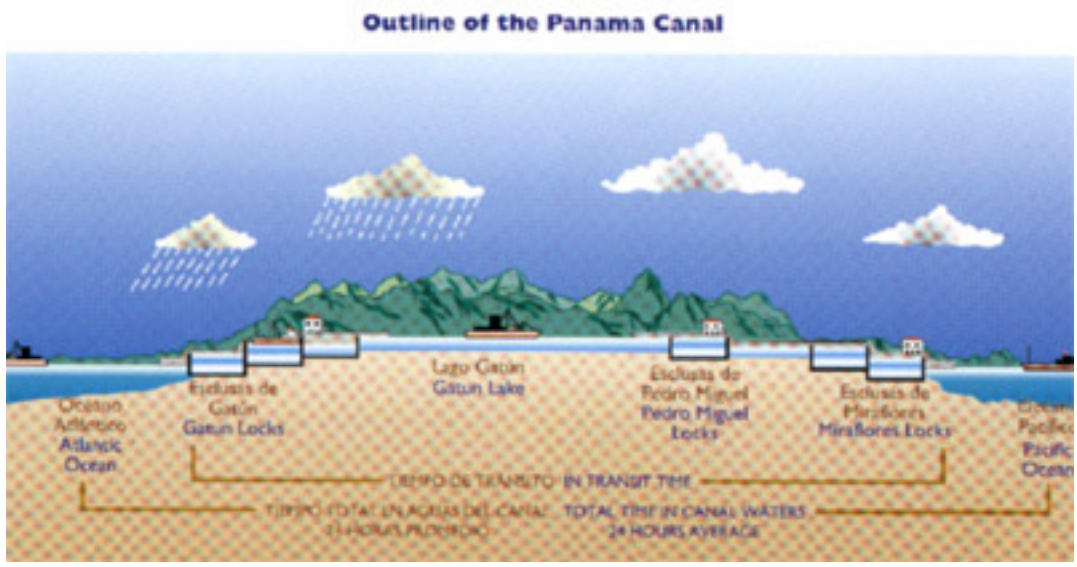


a. The Panama Canal Authority

In 1880 Ferdinand de Lesseps began a 20 year effort to construct a waterway across the Isthmus of Panama in fulfillment of a dream that began with Vasco Nuñez de Balboa's first sighting of the Pacific. After this failed, the United States took up the work in 1903 under a treaty which granted them rights to a strip of territory running 5 miles on each side of the Canal. At the opening of the Canal in 1914, the Panama Canal Company, together with the government had integrated the operation of the waterway and adjacent lands into the Canal Zone, a separate State within the Republic of Panama. Wholly U.S. in character, the Canal Zone had its own police force, judicial system customs and immigration services, remained unchanged until the implementation of the Torrijos/Carter treaties on October 1st., 1979. The new arrangement disestablished the governmental institutions of the Canal Zone and the territories reverted to the full sovereignty of the Republic of Panama, but the treaty continued the right of the United States to operate the waterway until the end of the century. The final act of transfer to the Republic of Panama took place on 31 December 1999. An autonomous legal entity by the name of Panama Canal Authority established under public law, is the new entity in charge of the administration, operation, conservation, maintenance, and modernization of the Panama Canal and its related activities. By law the Panama Canal constitutes an inalienable patrimony of the Panamanian Nation and it shall remain open to the peaceful and uninterrupted transit of ships of all nations. Vessels approaching the Canal should do so with the clear understanding that they are entering the legal and governmental jurisdictions of the Republic of Panama.

b. Facts about the Panama Canal

The Panama Canal connects the Atlantic Ocean with the Pacific Ocean. The Atlantic entrance is at Cristobal and the Pacific entrance at Balboa. The Canal has a length of about 83 Km from ocean to ocean. The channel is maintained to a min. width of 152.4m and a depth of 12.80m at MLW. The lock chambers are 304.8m long and 33.53m wide, with depth of water over mitre sills of 12.4m at the most restrictive point, the South end of Pedro Miguel Locks. A system of whistle buoys to mark the Atlantic entrance to the canal have been installed and these are especially effective in rough weather and where there are few physical landmarks to be seen. From the Atlantic terminal, Cristobal Harbour or Limon Bay, the channel extends to Gatun Locks, a distance of about 12 Km where vessels enter a 3/lift lock and are raised 25.90m to the level of Gatun Lake, which is the summit elevation of the Canal. All locks have two parallel lanes. The channel from Gatun Locks through the lake extends 37.6 Km to Gamboa where vessels enter the Gaillard Cut which runs approx. 12.8 Km to Pedro Miguel. At Pedro Miguel vessels enter a single lift lock and are lowered 9.45m to a small lake, through which they pass to Miraflores Locks, a distance of about 1.6 Km. Here they enter a 2 lift lock and are lowered to sea level, passing out through a channel about 11 Km long to the Pacific. Vessels are towed through the locks by electric locomotives assisted by ship's engines. High mast lighting is installed at all locks. A vessel of medium size can pass through the Canal in about 9 hours, and Canal capacity is now about 42 vessels per day.



The convoy system is not employed. Vessels are dispatched for transit under a fairly complex

system resulting from the need to schedule traffic in accordance with vessel type size and/or cargo; which governs pilot and equipment requirements, and restrictions on transit time and conditions. Large vessels and dead tows which require clear cut and/or daylight passage, are usually dispatched during the early morning with smaller vessels commencing transit later in the day and during the night.