

## Panama Canal

## TRANSIT GUIDE



**Atlantic Bridge** Designed for passage of huge container ships, this road bridge in Colón spans the Atlantic entrance to the canal. Construction began in January 2013 and was tagged complete in August 2019.

2 Agua Clara Locks & Visitor Center Part of the Panama Canal expansion that opened in 2016, this is one of two new sets of locks. Three consecutive chambers, with water-saving basins, move vessels from sea level to Gatún Lake and back down again. Panoramic views from the new visitor center include Gatún Lake and the expansion area.

**3** Gatún Locks At its Caribbean end, the Gatún Locks raise ships traveling toward the Pacific to the level of the lake. Three sets of double-lock chambers bring ships almost 100 feet (30 m) above the water, from the Caribbean Sea into Gatún Lake.

**Gatún Dam** The dam, constructed in 1908, spans the Chagres River and drives all of the electricity operating the canal. Its construction buried entire villages, which were relocated as part of the project.

**6** Gatún Lake Formed in 1912, with the damming of the Chagres River, the islands on Gatún Lake were once the peaks of hills. The lake encompasses 166 square miles (430 sq. km) and the surface sits at an elevation between 82 and 87 feet (25 and 27m) above sea level. In addition to opportunities to see the infrastructure of the canal, Gatún Lake is fascinating for its remarkable biodiversity.

**6** Barro Colorado Island Named for the color of its red-clay soil, this former hilltop became an island with the creation of Gatùn Lake. Set aside as a nature reserve in 1923 by the U.S. Government, it is the largest island on the lake and home to the Smithsonian Tropical Research Institute.



Culebra Cut This artificial channel is an excavated gorge stretching more than 8 miles (13 km) across the Continental Divide. It was known as a "special wonder" of the canal's construction, given the challenges of the area's unstable soil and rock, alongside extreme heat for the laborers.

**8** Centennial Bridge This bridge on the canal opened in 2004, with a goal to lessen traffic on the Bridge of the Americas, located 9 miles (15 km) south. Dually, it replaced the Bridge of Americas as carrier of the Pan-American highway.

**9** Pedro Miguel Locks This set of locks lowers southbound ships 30.5 feet (9.3 m) to Miraflores Lake. A parking strip here often attracts onlookers.

**Miraflores Lake** This small body of water sits between the two sets of Pacific locks, Pedro Miguel and Mira Flores. A tectonic fault beneath the lake led to these chambers being spread apart, unlike those in Gatún where they are in the same place.

Miraflores Locks & Visitor Center On the Pacific side of the canal, vessels here ascend or descend 54 feet (16.5 m) back to the Atlantic side, in two steps. Due to an extreme variation of Pacific tides, the lower chamber gates are the highest of any of the Panama Canal locks. Each lock chamber here, except for the lower locks, has intermediate gates to conserve water by reducing the size of the chamber. At the visitor center, four exhibit halls help portray the canal's history.

**Cocoli Locks** Part of the Panama Canal expansion that opened in 2016, these new locks on the Pacific side add a third lane of canal transit. They include three watersaving basins that reduce the water volume used during lock operation. **Bridge of the Americas** This enormous bridge spanning the entrance to the Panama Canal was completed in 1962, costing the United States 20 million U.S. dollars. At 5,425 feet long and almost a mile wide (1,654 m, 1.5 km) the bridge is a key part of the Pan-American highway.

## From Your EXC Team

The construction of the Panama Canal is one of those epic tales from the past, a feat of engineering, ambition and courage. Over the span of a decade a little more than a century ago, tens of thousands of workers drilled dynamite holes, drove steam shovels and labored with pickaxes, all the while fighting off malaria. While the French builders of the Suez Canal ultimately gave up in Panama, American crews persevered and created a route allowing ships to travel across a continent. The new route took 10 years to build and shortened a ship's voyage by 7,800 miles (12,500 km).

In 2016 an expansion more than doubled the canal's capacity, allowing ships with capacities of more than 14,000 containers to pass through. The project has helped ensure that the canal will continue to be central to the world's maritime traffic.

What may come as a surprise is that only portions of the canal, at each end, are the narrow channels and locks. At its heart is the huge manmade Gatún Lake. There, in the middle of one of humankind's greatest engineering achievements, more than 100 species each of mammals and reptiles, as well as some 500 different birds, thrive in the nature reserves on islands in the middle of the lake and along its edges.

An experience on the waterways of the Panama Canal is undoubtedly an unforgettable one—marked with the marvels of human achievement alongside the magic of the natural world.

Holland America Line and its contributors strive to provide accurate and current information. However, we can not be held responsible for any loss, injury or inconvenience sustained by anyone resulting from the use of this information.