

THE PANAMA CANAL



***100 Years Uniting the World
1914-2014***

Where is Panama?

IS LOCATED IN CENTRAL AMERICA,
BORDERING BOTH THE CARIBBEAN SEA AND
THE NORTH PACIFIC OCEAN, BETWEEN
COLOMBIA AND COSTA RICA



THE FRENCH FAILURE

In 1880, the French attempted to construct a waterway pass across the Isthmus but failed mainly because the very sick and dead among the French employees on the Isthmus.



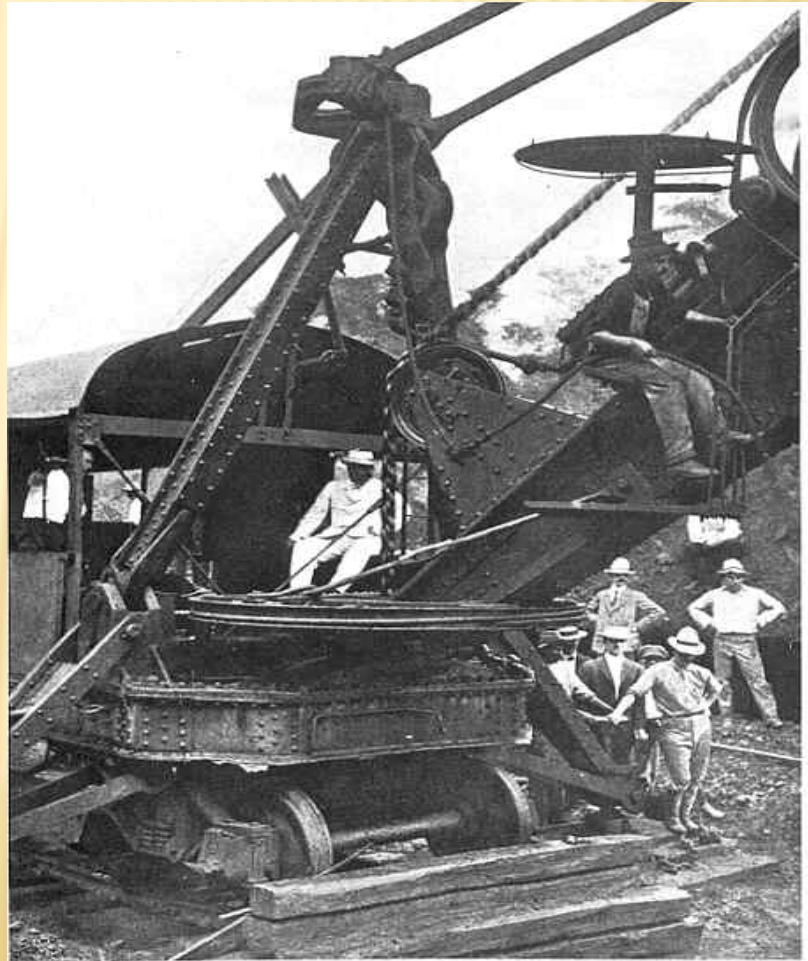
- ✗ Colombia rejected United States plans to build a canal across the Isthmus of Panama leading later a revolution where Panama became a Republic in 1903.



- ✗ It is estimated that over 80,000 persons took part in the construction and that over 30,000 lives were lost in both French and American efforts.

U.S President Theodore
Roosevelt

Visiting the canal
construction site.



THE PANAMA CANAL 1904-1914

- ✖ The building of the Panama Canal took 34 years from the initial effort in 1880 to actually opening the canal in 1914. The building of the canal is considered one of the greatest engineering triumphs in history.



80-A²¹ Opening of the Panama Canal, S.S. Ancon crossing the French canal at Mindi, Aug. 15, 1914.

- Initially, for military purposes
- Save money
- Transport goods faster
- Quick access to the Atlantic and Pacific oceans



WHY BUILD THE CANAL?

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Traveling from Atlantic to Pacific, ships navigated around Cape Horn, the treacherous southern extremity of South America. A New York to San Francisco journey measured some 13,000 miles and took months.



HOW IT WORKS.....



- It is a three sets lock system
- Lifts a ship up 85 feet to the ocean and down again
- It has a total of six steps (three up, three down)
- The total length of the lock structure, is over 1.9 miles



HOW IT WORKS.....

- There are two independent transit lanes (each lock is built double)
- Double lanes allows ships to pass in opposite directions at the same time (large ships pass in one direction only)
- Each lock chamber requires 26,700,000 US gal of water to fill it from the lowered to the raised position. The same amount of water must be drained again
- Water is moved by gravity and is controlled by big valves
- Chamber can be filled in eight minutes



HOW IT WORKS.....

The gates of the lakes are doubled for safety.

Ships are guided by electric locomotives as an important safety feature



HOW IT WORKS.....

THE EXPANSION....

- ✖ The **Panama Canal expansion project** (also called the Third Set of Locks Project) will double the capacity of the Panama Canal by 2015 by creating a new lane of traffic and allowing more and larger ships to transit.
- ✖ The project will:
- ✖ Build two new locks, one each on the Atlantic and Pacific sides. Each will have three chambers with water-saving basins.
- ✖ Excavate new channels to the new locks.
- ✖ Widen and deepen existing channels.
- ✖ Raise the maximum operating level of Gatun Lake.^[1]
- ✖ (http://en.wikipedia.org/wiki/Panama_Canal_expansion_project)

MAP OF THE PANAMA CANAL

