

## READING 1:

### THE PANAMA CANAL: A BRIEF HISTORY

**1** Once explorers had circumnavigated the world in the 1500s proving that the Earth was round and that other countries could be reached by ship, traders and travelers still had this problem: routes weren't always very convenient. If one wanted to sail from England to India, for example, that meant going down around the Horn of Africa, a long and dangerous journey. Sailing from Spain to California, or even New York to California, meant sailing around Cape Horn at the southernmost tip of South America.

**2** The construction of the Suez Canal in 1869 meant that ships could more easily pass between Europe and Asia. Attention then turned to Central America, the narrowest land barrier between the Atlantic and the Pacific Oceans.

**3** Countries had actually been thinking about a canal in that region since the 1500s, and the Spanish explored the land with such a project in mind. However, they thought that it wouldn't be possible due to the mountains and jungles.

**4** The first country to attempt a canal was France, using a team managed by Ferdinand de Lesseps, who had successfully built the Suez Canal. Work began in Panama in 1880, but the construction was not straightforward. The workers experienced great difficulties not only with the land but with the constant rains and malaria and yellow fever from the region's many mosquitoes. Work was abandoned in 1888.

**5** The United States was the next country to be interested. They purchased the Canal Zone from France in 1902. Unable to get permission to build in Colombia, they instead made a deal with the newly independent government of Panama in 1903.

**6** Initially, the Americans experienced the same problems the French did. Success didn't come until they brought in new equipment, changed the design of the canal to a system of locks, and worked on the disease problem. The project's chief sanitary officer, Dr. William Gorgas, worked hard to reduce the number of mosquitoes in the area. The connection between mosquitoes and malaria had only been discovered in the late 1800s, and not everyone believed that Gorgas' work would make any difference. However, the last reported case of yellow fever in the area was in 1905, and malaria cases fell dramatically, thanks to Gorgas' efforts to get rid of swamps and small standing pools of water, fumigate areas where people lived, and encourage the use of mosquito netting.

**7** Diseases were not the only challenge. In early 1907, the chief engineer of the project, John Frank Stevens, suddenly resigned. The reasons for this were never discovered. It is possible, though, that because he was a railroad engineer, he felt he didn't have the expertise necessary to build locks and dams. Nevertheless, before he left, he built essential support for the project, including warehouses and piers, as well as facilities for the workers and their families such as houses, hospitals, and schools.

**8** George W. Goethals was chosen as the next chief engineer. One of his first projects was to clear a passage through a nine-mile (14-kilometer) stretch of mountains. It took around 6,000 men working around the clock to finish the Culebra Cut, as it became known. Men blasted through rock and earth, risking landslides, and removed the debris with trains—all told, more than 100 million cubic yards (76 million cubic meters) of material. They had to lay down more train tracks as they

advanced. At the busiest times, a train either arrived or left almost every minute. It was considered one of the greatest engineering feats of the time.

**9** In 1909, the construction of the locks was begun. Locks at each end of the canal raise ships to Gatun Lake, an artificial lake, and then lower the ships back down on the other side. The Panama Canal had its official opening on August 15, 1914. More recently, from 2007 to 2016, the canal was expanded to include a wider lock for larger, more modern ships.

**10** In 1977, the United States signed a treaty to eventually return control of the land to Panama. For a certain period, the United States and Panama shared control of the canal, and then in 1999, Panama assumed full control. Tolls from the passing ships contribute about a billion dollars to the Panamanian economy each year.

**11** In 1914, the year it opened, about 1,000 ships passed through the Panama Canal. The number steadily increased year by year. By 2014, about 14,000 ships a year were traversing the canal, and today, this figure is about 40 ships a day.

**12** The cost of the Panama Canal was huge, both in money (the United States spent 8.6 billion dollars on the project) and human lives—in the first part of the project, 22,000 workers died, mostly from malaria or yellow fever. The American team lost 5,600 workers to accidents and disease.

**13** The result? 48 miles (77 kilometers) that take eight to ten hours to navigate, as opposed to 8,000 miles around Cape Horn. These days, it's estimated that 90% of all products are moved around the world by cargo ships. If you look around you, it's likely that something you see passed through the Panama Canal at some stage. So, whether you live near the canal or far away, it's probably influenced your life.

1. What can be inferred about sea travel before canals like Suez and Panama?
  - A. It was faster but more expensive
  - B. It required longer and riskier routes
  - C. It depended only on weather conditions
2. Why did the success of the Suez Canal increase interest in Central America?
  - A. It showed canals could improve global trade routes
  - B. It reduced the need for ships
  - C. It connected North and South America
3. What was the main reason early plans for a canal in Central America were rejected?
  - A. Lack of workers
  - B. Political disagreements
  - C. Natural geographical challenges
4. What does the failure of the French project suggest?
  - A. They lacked financial support

- B. Technology and medical knowledge were insufficient
  - C. Workers refused to continue
5. Why did the United States negotiate with Panama instead of Colombia?
- A. Colombia refused permission
  - B. Panama offered cheaper land
  - C. France suggested Panama
6. What was the significance of Dr. Gorgas's work?
- A. He improved transportation systems
  - B. He proved the link between mosquitoes and disease in practice
  - C. He invented new construction tools
7. Why was the construction of the Culebra Cut considered a major achievement?
- A. It used new types of ships
  - B. It required massive excavation under dangerous conditions
  - C. It was completed ahead of schedule
8. How do the locks of the Panama Canal function?
- A. They store water for ships
  - B. They lift and lower ships between different water levels
  - C. They control the speed of ships
9. What does the increase in ship traffic over time indicate?
- A. Ships are becoming smaller
  - B. The canal is less important
  - C. The canal plays a growing role in global trade
10. What overall conclusion can be drawn about the Panama Canal?
- A. It mainly benefits nearby countries
  - B. It had little impact on global transportation
  - C. It significantly changed international shipping and trade