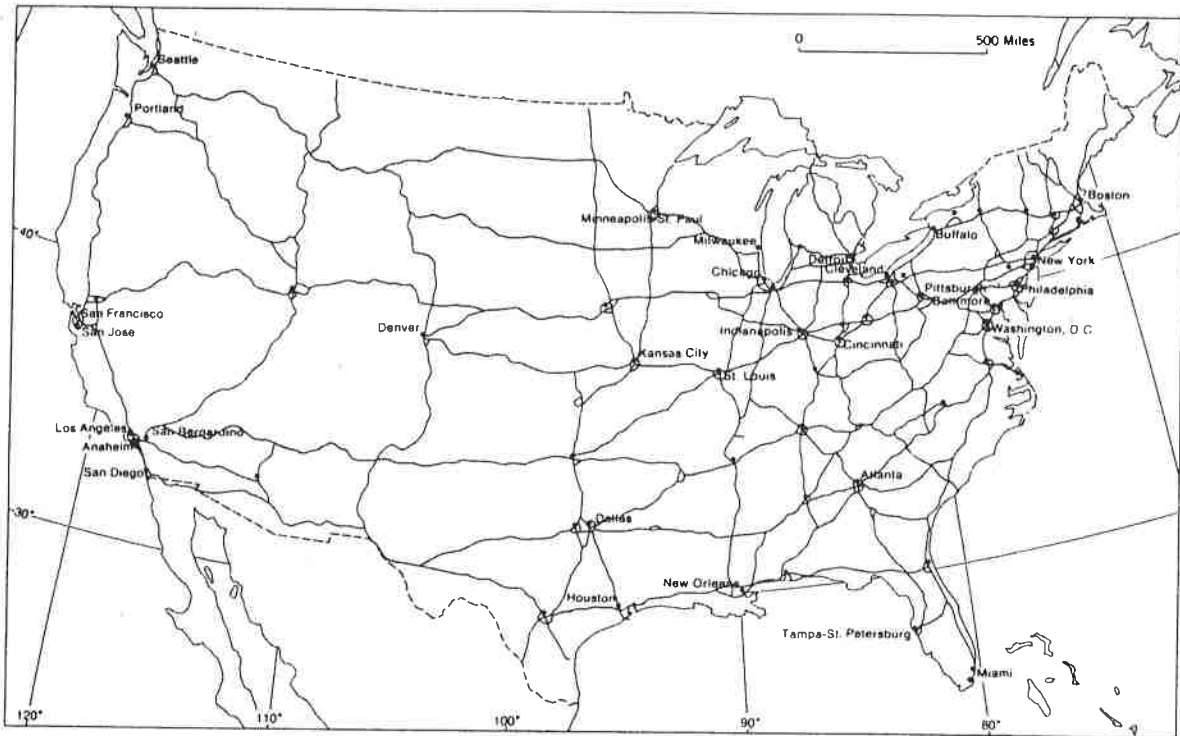


United States Highways

The United States has three-and-a-half million miles of surfaced roads. People use these roads every day to go to work, stores, or school. These roads are built by government highway departments. Local towns and cities, counties, and states build some of the roads. The federal government builds many roads, too.

The map below shows one of the highway networks built by the United States government. This network is called the Interstate Highway System. It is possible to travel on the interstate highways from coast to coast without ever having to stop at a traffic light! The interstate highways have several lanes of traffic going in each direction. Cars, trucks, and buses can move at high speeds on these highways.



United States Interstate Highway System

Answer the questions.

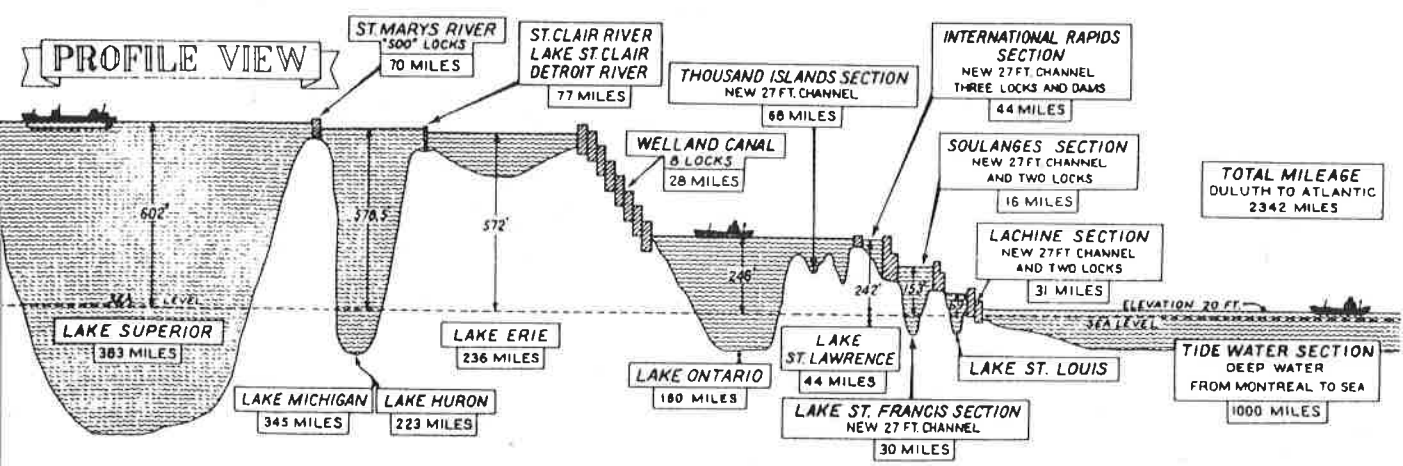
1. What is the title of the map? _____
2. Approximately how many miles is it from Denver to St. Louis? _____
3. What interstate highway is closest to your home? _____
4. Who builds the Interstate Highway System in the United States? _____
5. If you were driving from Houston to Washington, D.C., on interstate highways, what major cities would you pass through?

2. About how far is it from Duluth at the western end of Lake Superior to the Atlantic Ocean?

3. Name the states that border the Great Lakes, from west to east.

- | | |
|----------|----------|
| a. _____ | e. _____ |
| b. _____ | f. _____ |
| c. _____ | g. _____ |
| d. _____ | h. _____ |

4. What country borders the St. Lawrence-Great Lakes Seaway to the north?



Study the profile view of the Seaway and answer the questions below.

How far above sea level is Lake Superior? _____

How many locks are there in the Welland Canal section of the Seaway? _____

Why are there so many locks at this particular place?

How many locks are there between Lake Ontario and the Tide Water Section?

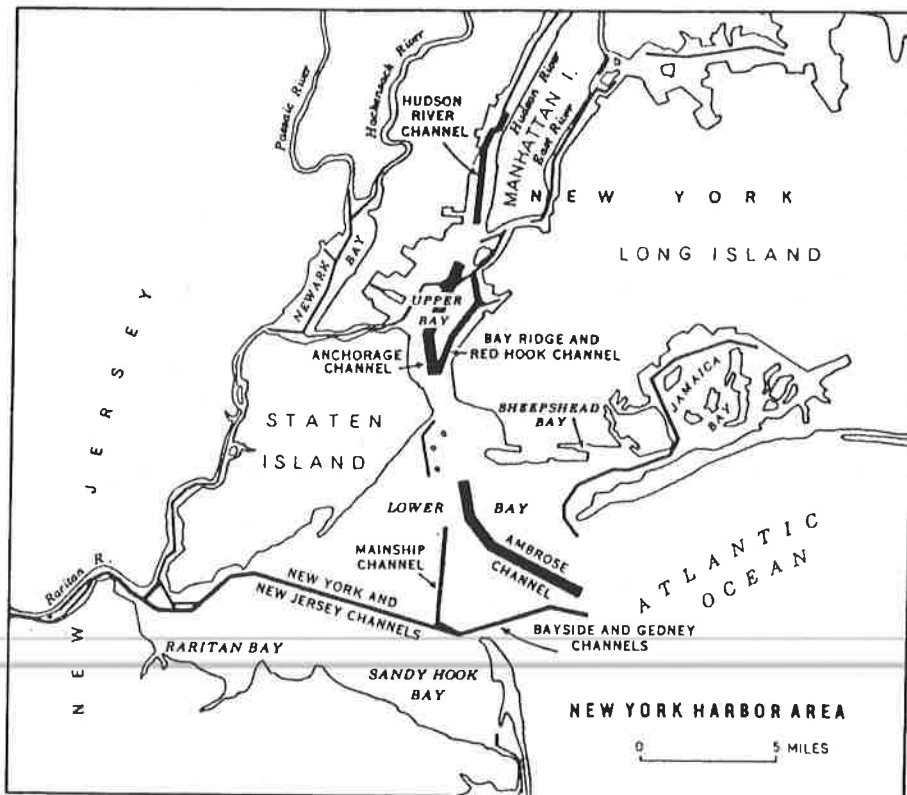
Getting Goods to Markets

The Port of New York City was once the number one port in the nation. Today, however, New York City is just one of many important national ports. What has caused this change?

New York's number one position changed when the way ship cargo was loaded changed. Many years ago, the cargo was brought to or taken away from the docks by railroads. The cargo was loaded or unloaded piece by piece onto or off of ships. It took many workers, called *longshoremen*, many hours to load or unload a ship. The docks in New York City were crowded with longshoremen.

Today cargo is loaded onto ships in huge *containers*. The cargo is brought to the docks on large trucks. Two things are needed for a container port to be successful. First, these trucks need space to load and unload the giant containers. Second, the highways connecting the port to other big cities have to be fast and easy to reach.

New York City did not have enough space for these big trucks. Also, the interstate highway connections from the New York City loading docks to other cities were not easy to reach. Therefore, the new container port was built across the Hudson River at Newark, New Jersey, where there was plenty of space and excellent interstate highways leading right to the port area.



Ground telephone connections have also been improved. Strands of glass as thin as a human hair are used to carry messages from city to city in the Northeast. A cable of these glass strands may be only a half-inch thick. Yet this cable can carry hundreds of thousands of conversations at the same time, which is many, many more conversations than a copper cable thick as a wrist can carry. The glass strands are less expensive to make. A mile-long thread of glass can be made from a tablespoon of raw material!

Answer the questions below.

1. What are three kinds of conversations that will happen all the time in the future?
 - a. _____
 - b. _____
 - c. _____
2. How do satellite links help businesses? _____
3. How have satellite links improved the lives of people who live in places far away from other people? _____
4. Who else might be helped by satellite links? _____
5. What kind of material is now used to carry ground communication messages? _____
6. List two reasons why this material is better than the copper cable that has been used in the past.
 - a. _____
 - b. _____

Today most of the container-loading docks for the New York area are located in New Jersey at Port Newark-Elizabeth. In 1962, most of the port's business was on the New York City side of the port. Practically no cargo was containerized. Today 90% of all cargo is containerized, and most of the New York area's shipping business takes place at Newark-Elizabeth, which is known as "America's container capital."

Study the map on page 58 and answer the following questions.

1. In the past 30 years, what change has taken place in the way ships are loaded?

2. What is a containerized port?

3. What two things are necessary to have a successful containerized port?

- a. _____
- b. _____

4. Why was the New York City side of the port not a good place for a containerized port?

5. What made Newark-Elizabeth an ideal place to build a containerized port?

6. What has happened to the amount of cargo handled in the New York City part of the port since 1962?

7. What has happened to the amount of cargo handled in the Newark-Elizabeth part of the port since 1962?

8. Why is the Newark-Elizabeth port area known as "America's container capital"?

Using the BART System

In September 1972, a new transportation system opened up in the San Francisco Bay area. It is called *BART*, which stands for Bay Area Rapid Transit. The BART system connects the towns on the eastern side of San Francisco Bay with the city of San Francisco on the western side of the bay. The transit system forms a giant X across the bay area.

People can travel quickly and inexpensively from one town to another. BART trains run at speeds of up to 80 miles per hour between stations. The trains are started, accelerated, slowed, and stopped by computerized instructions. An attendant rides in the front cab of the train. However, he or she has nothing to do except when there's an emergency.

BART trains run at 6-minute intervals during the rush hours. At other times during the day and evening, the trains run every 12 to 20 minutes. Passengers purchase magnetically coded tickets at ticket machines. These machines even make change for the customer. Fares are moderate, averaging about \$3.00 for a trip.

The builders of BART hoped that commuters in the bay area would use this fast and less expensive transportation system instead of their cars. They hoped that traffic on the highways in the bay area would decrease as more people used BART.

Answer these questions below.

1. What does BART stand for?

2. Why is BART called a rapid transit system?

3. How fast do BART trains run? _____

4. How often do BART trains run? _____

5. How much does it cost, on the average, to ride on BART?

6. What did the builders of BART hope would happen to car traffic in San Francisco after people started riding on BART?
