




On the path of a killer

Next you will learn about the countries affected by Georges as it traveled across the Atlantic. Look at the **Storm Track** theme, which shows the path of the center of the hurricane as it crossed the Atlantic.

- ▶ Turn the Georges images on and off as needed to better see the track.
- ▶ Use the Identify tool  to learn the names of countries, islands, and states along Georges' path:
 - Activate the **Countries** theme.
 - Using the Identify tool , click on a country or island, and read the **Name** in the Identify Results window.
 - If you need to identify US states, activate the **States** theme before using the Identify tool .

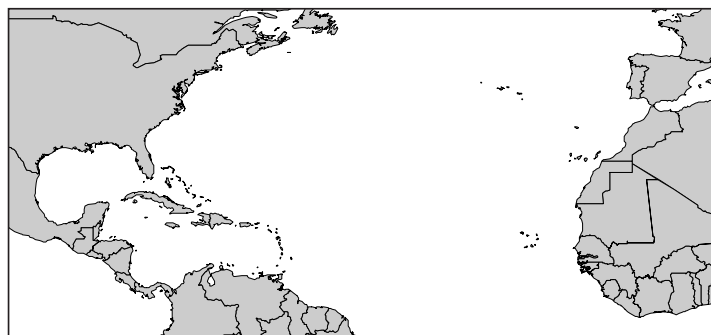
8. Identify some of the landmarks associated with Hurricane Georges as it made its way across the Atlantic Ocean:
 - a. Hurricane Georges formed just to the south of this group of islands off of the coast of Africa: _____.
 - b. The four large Caribbean island countries that Georges passed directly over as the hurricane headed toward the United States are _____, _____, _____, and _____.
 - c. The first US state affected by Georges' heavy rainfall and strong winds was _____.
 - d. The US state where the eye of Hurricane Georges first made landfall was _____.

Hurricane formation

- ▶ Close the **Tracking Georges** view and open the **Formation and Movement** view.
- ▶ Turn on the **Formation Points** theme.

Each point in this theme indicates where a storm system began showing the characteristic features of a tropical cyclone. Notice that the points are not evenly distributed. Try to identify two distinct areas where tropical cyclone formation is concentrated. Zoom in and out as needed.

9. On the map below, identify two areas where hurricane formation in the Atlantic appears to be concentrated.



- ▶ Turn on the **End Points** theme.

Look for areas where hurricanes appear to lose strength and die.

10. Identify and label two areas on the map where hurricanes tend to die out.

- ▶ Turn on the **Hurricane Tracks** theme.


Don't be fooled!

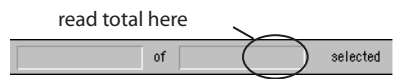
Remember from your look at Georges that each hurricane track represents the path traveled by a large and dangerous storm that affects an area far larger than the thin lines you see.

The tangled lines are the paths traveled by Atlantic hurricanes from 1950 to 1999. Each path was defined by recording the location of the storm's center at regular intervals and then connecting the dots. Before the existence of weather satellites, storm locations were determined by aircraft and reports from ships at sea. Next, you will find out the number of hurricanes that have crossed the Atlantic over the past fifty years.

How many hurricanes?

Every hurricane is a unique event with its own "personality." This may be one reason why it seems fitting to give hurricanes human names. Still, most hurricanes go through similar life cycles.

- ▶ Determine how many hurricanes have occurred since 1950:
 - Activate the **Hurricane Tracks** theme.
 - Click the Open Theme Table button .
 - Read the total number of hurricanes from the bar above the table window:



11. How many Atlantic Basin hurricanes occurred from 1950 to the present?
12. What is the average number of hurricanes that occur each year in the Atlantic Ocean basin? (total hurricanes / years)

Global wind patterns and hurricane tracks

Next you will look at global wind patterns and determine their influence on hurricane movement in the Atlantic Ocean and the Gulf of Mexico.

- ▶ Turn on the **Global Wind Patterns** theme. The arrows indicate the direction of prevailing winds over the oceans.

13. In what direction do the prevailing winds over the Atlantic Ocean appear to be moving near the equator?
14. In what direction do the prevailing winds over the Atlantic Ocean appear to be moving near 40°N latitude?
15. Do the prevailing winds over the Atlantic appear to be rotating? If so, are they rotating clockwise or counterclockwise?

Reading coordinates: The cursor's longitude and latitude are displayed on the right end of the tool bar.

