Five Faces of Hurricane Mitch

Introduction

The 1998 Atlantic season was the deadliest in more than 200 years. Not since the hurricane of 1780 has the Atlantic hurricane basin seen storm-related fatalities like those of Hurricane Mitch (Oct. 21-Nov. 5). Mitch, a Category 5 monster, registered average sustained winds near 180 mph (Oct. 25) with gusts well over 200 mph. Hurricane Mitch was the strongest storm in the western Caribbean since Hurricane Gilbert in 1988.

Mitch stalled off the coast of Honduras from late on Oct. 27 until the evening of Oct. 29 before moving slowly inland. As the storm's winds weakened, it continued dumping heavy rain on Central America, causing floods and mudslides that have been blamed for over 10,000 deaths and thousands more wounded or missing. Mitch struck Central America with such viciousness that it was nearly a week before the magnitude of the disaster began to reach the outside world. More than three million people were either homeless or severely affected.

On Nov. 2, Mitch returned to the southern Gulf of Mexico where warm waters rejuvenated the system into a tropical storm. Mitch then barreled through southern Florida early November 5. In this activity, you will explore this violent storm.

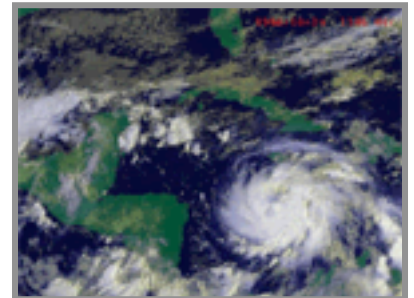### Collecting Data : Following Mitch's Path

Locate this movie:
Program: Atmosphere
Library: What's Hot

Question: What did Hurricane Mitch look like from space?

Run the movie and notice the location of the moving storm. Plot the hurricane's path on a map of the western hemisphere. Stop the movie several times to record the position of the storm's eye.

Collecting Data : Flying into the Storm
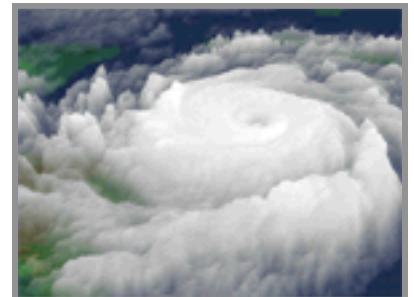
Locate this movie:
Program: Atmosphere
Library: What's Hot

Question: What did Hurricane Mitch look like up close?

Run the movie and notice how the clouds move. On this frame of the movie, use arrows to show the direction of the motion of the clouds.

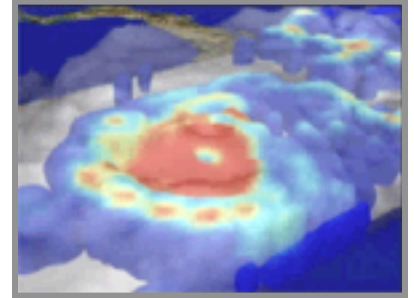### Recording Data : Measuring the Rain

Locate this movie:
Program: Atmosphere
Library: What's Hot

Question: How do we study the structure of a hurricane?

Run this movie and notice where the red areas are. They represent the greatest rainfall. On the drawing above, shade in the areas with most rainfall. What is it like in the center of the storm?
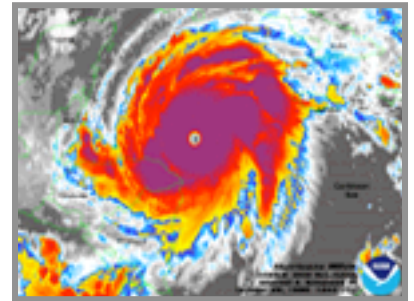

Analyzing Data : Two views of Mitch

Locate these two images. Study one and then the other.
Program: Atmosphere
Library: What's Hot

Question: How can we study Hurricane Mitch - Infrared View?

Infrared imagery shows the higher clouds in the storm. These infrared images have "false color". Gray is relatively warm, blues cooler, red indicates clouds that are the coldest and tallest. Are the higher clouds stronger to the north or south of the hurricane's eye?

How does this image compare with the movie you just watched? In general, are rain areas brighter or fainter in infrared light?
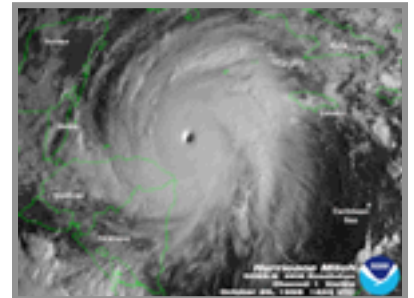
Are the red areas in this image more likely to contain rain?

Program: Atmosphere
Library: What's Hot

Question: How can we study Hurricane Mitch - Visible View?

Draw this image on the map on the next page. Use the map overlay to place the hurricane correctly. Using the map's scale, measure how wide the storm is. Also make a guess about how big the eye is.

Storm's width:

Width of the eye:

Hurricane Tracking Chart