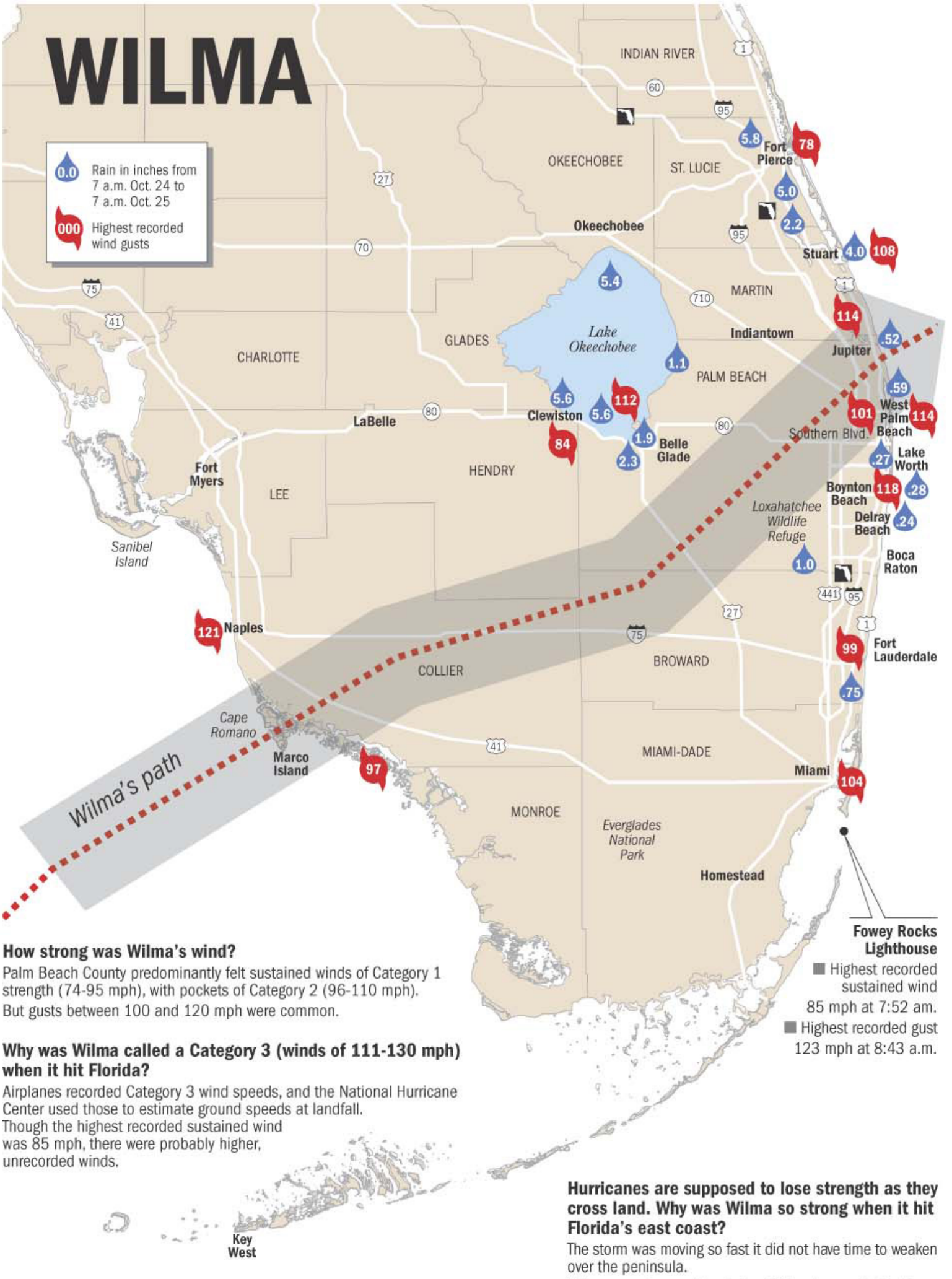
WILMA



How strong was Wilma's wind?

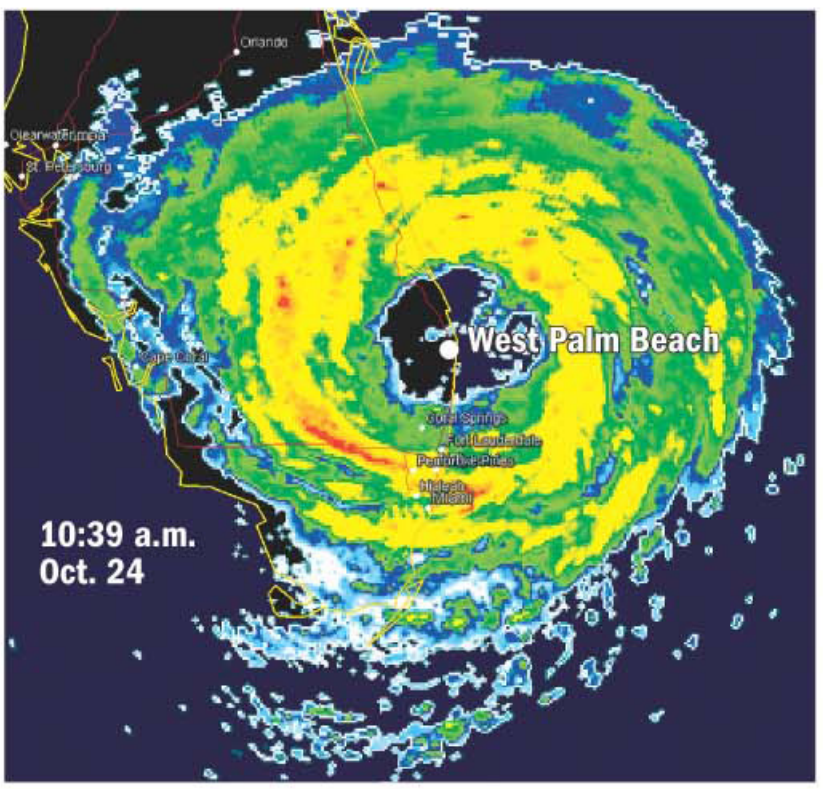
Palm Beach County predominantly felt sustained winds of Category 1 strength (74-95 mph), with pockets of Category 2 (96-110 mph).

But gusts between 100 and 120 mph were common.

Why was Wilma called a Category 3 (winds of 111-130 mph) when it hit Florida?

Airplanes recorded Category 3 wind speeds, and the National Hurricane Center used those to estimate ground speeds at landfall.

Though the highest recorded sustained wind was 85 mph, there were probably higher, unrecorded winds.



WINDS FLUCTUATE WITHIN A HURRICANE

Red and orange area is strongest band of wind

Hurricanes are supposed to lose strength as they cross land. Why was Wilma so strong when it hit Florida's east coast?

The storm was moving so fast it did not have time to weaken over the peninsula.

Wilma raced across the state at 23 mph, crossing in four hours.

By contrast, Frances crawled at 5 mph or less.

How did Wilma's eye compare to the 2004 storms?

Wilma's eye was 65 miles across, compared with 2004's Frances (50 to 70), Jeanne (35 to 40), Ivan (40) and Charley (10).

Wilma's eye covered virtually all of Palm Beach County.

How far did winds stretch beyond the eye?

Hurricane force winds – at least 74 mph – extended 85 miles and tropical storm force winds – at least 39 mph – stretched 230 miles from the center. That means that as the eye was at the southwest Florida coast, hurricane force winds stretched to the east shore of Lake Okeechobee and tropical storm force winds extended some 125 miles out into the Atlantic Ocean beyond Palm Beach.

Why are gusts so damaging?

Wind damage in hurricanes comes from both continuous pounding and brief gusts. 'Sustained winds can really work on structures, but gusts can be as destructive or more destructive,' said Rusty Pfost, meteorologist-in-charge at the South Florida office of the National Weather Service. 'A continuous wind at 70 might be pushing a tree. The gust at 100 might give it enough stress to break it.'

— Eliot Kleinberg