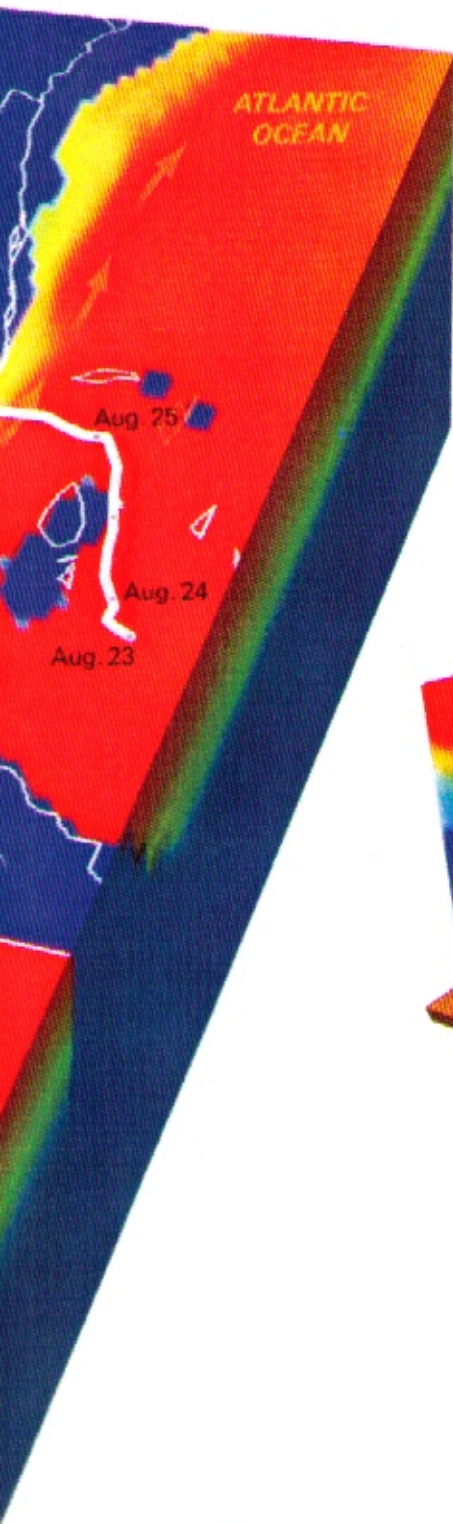


Supercharging a hurricane

Katrina drew extra energy from a tongue of warm water several hundred feet thick poking into the Gulf of Mexico. The source of the warm water was the so-called Loop Current, a stream of water from the Caribbean that circulates through the Gulf and exits south of Florida, feeding into the

Gulf Stream. This August the Loop stretched farther north than usual, right along the path of the slow-moving storm. "It was just sitting for more than 12 hours over the Loop Current," says oceanographer Isaac Ginis. "This was one of the key factors in the intensification."



DEEP HEATING

In the Gulf of Mexico, warm water normally extends no deeper than a hundred feet. Hurricanes weaken as they churn up the cool water from greater depths (above left), an effect that can limit the intensity of hurricanes in the Gulf. But because the Loop Current warms the ocean to depths of 300 feet or more, a hurricane passing overhead churns up warm water and continues to gain strength (above right).