Hurricanes Coming in 2006

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William Gray (located at the University of Colorado) is the leading hurricane expert in the world. His predictions are consistently the most accurate. Yesterday (March 26), the first U.S. hurricane update for 2006 was released by Gray.

You may be wondering what this year will bring; and the following hurricane update will provide a helpful introduction.

MANY DEVASTATED AREAS UNREPAIRED

Although we are nearing this year's hurricane season, along the Gulf Coast, an immense amount of repair work in the devastated areas has not yet been done.

Experts fear that New Orleans, especially, is totally unprepared for another major hurricane.

In South Florida, blue tarps are draped over hundreds of homes. That region is not considered ready for more hurricanes either.

Meteorologists are warning local residents, all along the Atlantic and Gulf Coasts, "to have a plan in place, supplies ready to go," if they need to jump into a car for a fast escape.

2004 AND 2005

Four hurricanes hit Florida in 2004. And then *Dennis, Katrina, Rita,* and *Wilma* hit it again in 2005.

But more calamities can occur. Between 1945 to 1950, hurricanes traveled through Florida every year—and usually more than once.

In 2005, there were 28 Atlantic storms, including 15 hurricanes, four of which reached Category 5. All of those figures are the highest ever recorded.

The 2005 storms began right on schedule in early June and continued a week past New Year's Eve. The season produced *Katrina*, the deadliest U.S. hurricane since the 1928 storm that spilled Lake Okeechobee; *Wilma*, the strongest Atlantic hurricane ever recorded; and *Vince*, the only tropical cyclone ever known to hit Spain.

The 2004 season was less extreme, with 15 storms.

One reason for all of this activity was the fact that the Atlantic region entered an active hurricane cycle in 1995 and likely will stay there for years to come, most researchers say. This means a lot of seasons ahead of us, like the storm-ravaged 1940s and 1950s.

William Gray says the present violent hurricane pattern could continue for another full decade.

IT COULD BE WORSE THIS YEAR

There are now only 67 days until hurricane season officially begins. Last year, there was a record of 28 hurricanes, which went six names deep into the Greek alphabet. Yet even 2005 was not as bad as it could get.

No hurricane last year, not even *Katrina*, struck the U.S. coast at Category 5 fury. No large U.S. city took the full force of a major storm. Large stretches of the nation's densely developed East Coast have gone unscathed for decades—including New York, Philadelphia, and Washington.

According to Gray, this year's hurricane season could be worse than each of the last two years. But, of course, that is only an early spring estimate.

The first major factor is that *La Niña* is back. This is a pattern of cool water in the eastern Pacific, last seen from 1998 to 2000, which affects wind patterns around the globe. Because of it, winds at various layers of the atmosphere tend to blow in harmony over the Atlantic, lessening the shear that would tear hurricanes apart. The result is that 2006 could produce far more powerful hurricanes than we experienced in 2004 or 2005.

The opposite phenomenon, *El Niño,* turns the Atlantic into a wind-shear factory in which hurricanes have a hard time forming. Scientists say the last *El Niño* emerged in late 2004, largely ending that hurricane season in mid-October.

The 2005 season was in a neutral phase, although wind shear was abnormally weak for much of the summer.

However, it is still too early in the year to be certain. Some scientists expect *La Niña* to remain throughout the coming hurricane season,—permitting them to begin near Africa and gain strength as they cross the Atlantic. But National Hurricane Center researcher Chris Landsea said forecasts are still too early to be certain. A *La Niña* could change into an *El Niño.*

One Florida scientist (James O'Brien, professor of meteorology and oceanography at Florida State University) thinks Floridians might be safer if *La Niña* remains throughout the hurricane season. This is due to the fact that hurricanes forming farther

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east would have more time to curve north—and land in the Carolinas and New Jersey.

A second problem, according to William Gray, is that the upper waters of the Atlantic and Gulf are still warmer than average. That is bad news, because warm water is hurricane fuel.

However, to date, those waters are not yet as warm as they were at this time in 2005, the region's warmest year since 1871.

Researchers at the hurricane center and the University of South Florida say the Atlantic never fully cooled after the 2004 season. So the 2005 season was primed by June, producing a record seven storms before August 1, including the two strongest July hurricanes in recorded history.

A third problem is that wind and pressure patterns could steer hurricanes directly into Florida, as they did in 2004 and 2005. For much of both years, a ridge of high pressure known as the *Bermuda High* remained, unmoving, over eastern North America, aiming the storms into the U.S. coast, hurricane center scientists say.

So far, Florida State University researcher James Elsner said, pressure patterns in the North Atlantic resemble those that would put the state in jeopardy. Then again, he cautioned that the patterns can change quickly; so March isn't necessarily a good predictor of the summer and fall.

GRAY'S DECEMBER FORECAST

On December 6, 2005, William Gray issued his first 2006 forecast. He predicted that the 2006 hurricane season will be "very active," with a well-above-average number of major storms. He also predicted an 81% chance that at least one major hurricane would make U.S. landfall in 2006. —But that was before the *La Niña* Pacific pattern came back, which could make the storms much worse.

The project team expects 17 named tropical storms in the June-through-November season. In a normal year, the Atlantic produces about 10 storms. In 2005, it had its most on record with 26, including four hurricanes that blasted U.S. shores: *Dennis, Katrina, Rita* and *Wilma.* The 26th storm, Hurricane *Epsilon*, was still churning in the Atlantic as the new forecast was announced.

The team, led by scientist Philip Klotzbach and professor William Gray, predicted in December that 2006 will bring nine storms, five of them major with at least Category 3 intensity (winds 111 mph or more). (In a normal year, the Atlantic basin only gets six hurricanes a year, two to three of them major.)

Coastal regions of the U.S.A were battered by four hurricanes both this year and last, with *Charley, Frances, Ivan* and *Jeanne* hitting Florida in 2004. Gray says it is too early to say how many might reach land in 2006. The number will depend on short-term weather patterns and ocean wind currents.

Never before has the December outlook called for so many storms. He says certain global patterns in December help predict how active next season will be. This year they include winds in the stratosphere, ocean currents, and warm sea temperatures.

"We've never had one year that has as many favorable signals at this stage for the next year's season," Gray added. His December calculations have correctly predicted either an above-average or below-average season in five of seven years since 1999. Since that December forecast, the *La Niña* problem appeared, which could add to the storm intensity.

There will be four more forecasts by Gray this year. The names for the 2006 Atlantic hurricane season will be *Alberto, Beryl, Chris, Debby, Ernesto, Florence, Gordon, Helene, Isaac, Joyce, Kirk, Leslie, Michael, Nadine, Oscar, Patty, Rafael, Sandy, Tony, Valerie* and *William*.

Hurricane season begins in June. How few are prepared for what may be ahead. —*vf*

"The day of test and purification is just upon us. Signs of a most startling character appear, in floods, in hurricanes, in tornadoes, in cloudbursts, in casualties by land and by sea, that proclaim the approach of the end of all things. The judgments of God are falling on the world, that men may be awakened to the fact that Christ will come speedily."—*Review, Nov. 8, 1892; 7 Bible Commentary, 950.*

"The restraining Spirit of God is even now being withdrawn from the world. Hurricanes, storms, tempests, fire and flood, disasters by sea and land, follow each other in quick succession. Science seeks to explain all these. The signs thickening around us, telling of the near approach of the Son of God, are attributed to any other than the true cause. Men cannot discern the sentinel angels restraining the four winds that they shall not blow until the servants of God are sealed; but when God shall bid His angels loose the winds, there will be such a scene of strife as no pen can picture.

"To those who are indifferent at this time Christ's warning is: 'Because thou art lukewarm, and neither cold nor hot, I will spew thee out of My mouth.' Revelation 3:16. The figure of spewing out of His mouth means that He cannot offer up your prayers or your expressions of love to God. He cannot endorse your teaching of His Word or your spiritual work in anywise. He cannot present your religious exercises with the request that grace be given you."—*6 Testimonies, 408.*

U.S. Hurricanes before 2000

What is the difference between a "hurricane" and a "typhoon"? The answer is location. Those giant circular storms in the North Atlantic and Gulf (which tend to hit the Caribbean, Central America, or America) are called *"hurricanes."* In the South Pacific they are referred to as *"typhoons."* Both are north of the equator, so they tend to travel west and then north, while rotating in a clockwise direction. In contrast, those in the South Pacific, which are south of the equator, rotate in a counterclockwise direction, and travel east and then south are called *"cyclones."* They hit Australia or New Zealand.

The naming of hurricanes first began in 1953, using women's names. But, due to strong complaints from feminist organizations, the list began including men's names in 1979.

I thought you would be interested in reading about the most dramatic hurricanes to hit the United States, prior to our century.

THE GALVESTON HURRICANE

On September 8, 1900, people saw a beautiful reddish dawn. The U.S. Weather Bureau had warned that a storm was brewing; but the Bureau's weather expert, in Galveston, told everyone not to worry. There was no danger.

The city had been built on a long, narrow barrier island separating Galveston Bay from the Gulf. At its widest the island was only three miles across—and only 4.5 feet above sea level. Occasionally a storm sent water over the beaches to flood a few streets. Yet no major disasters had interrupted the city's steady growth. No one was worried.

The city was totally unprepared a few hours later on September 8—when a hurricane swept through, pounding the city to rubble in the worst storm in U.S. history (prior to the 21st century).

With a population of 40,000, Galveston had miles of wharves, serving more than 1,000 ships each year. The trade included 70% of the nation's cotton crop and 25 million tons of grains.

It began to rain just after dawn on September 8, and soon a fierce wind was blowing. A few people drove around in horse carts, trying to warn others. While some sought shelter in the heart of the city, only a few people actually left the island.

The hurricane arrived so fast that, by noon, it was too late to flee. Both bridges to the mainland were under water.

That afternoon, giant waves washed away beachfront homes. Shortly after 5 p.m., the wind registered 84 miles per hour. Telephone poles toppled; and debris flew through the air, hitting many who were trying to wade to safety through chest-deep waters.

With the darkness of night came winds of more than 120 miles per hour. Some houses disintegrated; others were blown off their foundations.

Not until 10 p.m. did the wind begin to abate. Next morning, Galveston was in splinters. Half of its buildings (more than 2,600 houses) had been destroyed. More than 5,000 people had been injured and another 6,000 had died. An estimated 10,000 survivors were left homeless.

Within six days a new bridge had been completed; and, in 1902, work began on a large stone seawall 3.3 miles in length. But, as a result of the storm, shipping was later moved to Houston.

CAMILLE'S HURRICANE PARTY

In August 1969, we were living in the Florida panhandle near Quincy, Florida. Word came that Hurricane Camille was headed directly toward the coast, a little distance south of us.

But then, as it neared shore, it inexplicably veered westward—and hit the coast of Pas Christian, Mississippi. A year later, I drove through that area and found it still devastated.

Yet there was something very unusual about Hurricane Camille. It has always been my personal conviction that the Lord allowed it to suddenly increase in intensity as it neared shore to a record wind speed—beyond anything which had ever before hit the U.S. coast—because of the large hurricane party in progress, which was dead-center in the fiercest winds of the storm when it landed. Men and women had decided to have a drunken time celebrating the storm.

The date was August 17, 1969; and the weather bureau had issued urgent warnings to leave the area. But 13 people gathered on the third floor of the Richelieu apartment complex, to celebrate the coming of Camille.

The weather bureau had predicted that the center of the storm would strike the Florida panhandle, 100 miles to the east (where we lived).

But Camille veered westward; and, within the day, it came roaring ashore at Pass Christian. *Only a few minutes before it hit—inexplicably the wind speed increased to over 200 miles per hour*, in a tightly packed vortex.

The Richelieu Apartments were directly in the path of the worst winds and a storm surge that rose 19 feet above the high-tide line.

Two other people were in the apartment house that evening. Mary and Fritz Gerlach were preparing to join

the celebrants. But they never made it to the party.

Still in their bedroom, they heard waves smash through the picture window in their second-floor living room. To keep the water from entering, at first, they tried to hold the door shut. But in about five minutes the bed was floating halfway to the ceiling. They could feel the entire building swaying, like a boat.

Mrs. Gerlach managed to swim out a window and saw her husband disappear beneath the waves. Then, looking back, she saw the entire Richelieu building collapse.

She recalled grabbing some wreckage and, during the night, being driven along by winds so strong that she could scarcely breathe. At last she was deposited in a treetop—almost five miles from the beach. She remained there until she was rescued the following morning.

Of all the people in the apartment house, she was the only survivor. Everyone else had either drowned or been crushed to death when the building crumbled.

An air view of the Richelieu complex shows it entirely gone, with nothing left but bare ground. Yet, nearby are smaller buildings which survived.

The storm zeroed in on the hurricane party—and totally destroyed it.

THE HURRICANE OF 1938

We could not predict the weather very well back then. The first word of this terrific storm came from a Brazilian freighter, 350 miles northeast of Puerto Rico, on the evening of September 16, 1938. A hurricane was headed toward the U.S.

Based on what little data was available, this one was moving faster than usual—and, on the afternoon of the 20th, it would hit Miami. Everyone prepared for the crisis.

But it never came. Instead, the hurricane shifted course and, somewhere out in the Atlantic, headed on up the coast. Apparently, the storm was following a usual path which would take it safely eastward. By the time they reached the vicinity of Cape Hatteras, hurricanes generally veered toward the northeast and gradually dissipated over the colder ocean.

Since all the shipping had fled the area, there was no one out in the Atlantic to send in reports; and the weather bureau was blind as to the location and progress of the dangerous giant.

By Wednesday, the 21st, the storm was forgotten. That morning, the *New York Times* published an editorial praising the work of the weather bureau for its excellent warnings about that storm, which was now far out to sea.

—But, what no one realized, the hurricane's winds had increased to a fantastic 120 miles per hour, and its speed was accelerating to 70 miles per hour! Hour after hour, it was headed directly toward New England!

It would be the first hurricane to strike at the thickly populated northeastern U.S. in modern times. It would bring some of the highest winds ever recorded on the continent, and would terrify people and disrupt lives in a great swath stretching from New York City to Boston, and from the Atlantic coast inland as far north as Montreal!

Yet the greatest menace of the hurricane of 1938 was not its roaring winds, but the bulging swell of ocean it was pushing along. While the wind is especially feared, it is the water that kills most people.

An area of 39,000 square miles would be damaged by the hurricane; the residents of coastal Long Island, Connecticut, and Rhode Island would be hit the hardest.

The eye of the storm bore down on the middle of Long Island and, because of its speed, was later nicknamed the *Long Island Express.* (Hurricanes were not given names back then.) The winds east of the eye were moving as high as 150 miles an hour!

Thousands of buildings, many of them flimsy cottages, were torn to shreds. Fortunately, many were empty, because they were summer homes and their owners had gone back to work in the cities.

At the last minute, the weather bureau had hastily sent out a warning, but forgot to mention the storm surge. However, by that time, communications were already knocked out. So those who needed the information did not receive it.

Major cities were damaged. Fires started and could not be put out. In a few hours, the hurricane killed at least 600 people and destroyed the homes of over 60,000. The total damage was estimated at a third of a billion dollars (an immense amount back then). It demolished 26,000 cars, 75% of the smaller boats, 20,000 miles of electric and telephone wires, 1,500 head of livestock, and 250 million trees. The storm did not stop, but kept on its relentless path of destruction until it finally died out in Canada.

On the morning of September 21, a home owner in Westhampton Beach, Long Island, received in the early morning mail a fine new barometer that he had ordered from Abercrombie & Fitch. When he took it out of the package, he found to his disgust that it registered *"Hurricane."* He tried tapping and shaking the barometer to get it working right. But the needle remained stuck. Angrily, he threw it in the box, wrote a letter to the company; then he marched back to the post office and mailed off the useless barometer.

When he finally managed to return later on, he found his house gone. *—vf*