

# Remembering

# HUGO

Written by Suzannah Smith Miles

# 25 Years Later

**E**veryone who went through **Hurricane Hugo** has a story—a memory as dramatic and unforgettable as the storm itself. Hugo left us with boats on land, houses in water, and fish in places where fish aren't supposed to be. People heard roaring winds that sounded like freight trains and watched rising waters float cars and buildings like rubber ducks in a tub. For some, these images are as indelible today as they were 25 years ago when Hugo slammed into Charleston on the night of September 21, 1989.

**B**orn off Africa near the Cape Verde islands, Hugo first hit the Caribbean as a full-fledged force five hurricane with winds close to 190 mph. It then aimed straight for Charleston. The sheer size of the storm was enough to put terror in our hearts. Hugo was huge. At some 250 miles in circumference with a 40-mile-wide eye, the storm was as big as the state of South Carolina.

Even though Hugo weakened to a Category Four before it made landfall, it blasted the Lowcountry with such destructive force

that residents awoke the next morning to a landscape that recalled Hiroshima. Entire neighborhoods were gone. It looked like we had been hit by a bomb, and we had—one of extreme wind and tidal surge. Hugo's wind speed was officially measured at 137 mph, when the National Weather Service gauge broke. Shrimpers who rode out the storm on their boats speak of measuring gusts in the 160 to 180 mph range. Additionally, Hugo's waters wreaked havoc, flooding the Charleston peninsula and completely covering the barrier islands. In the fishing village of

McClellanville, the storm surge was nearly 20 feet high.

Hurricane Hugo left us stunned, in a state of shock and awe. Some 36,000 people were homeless, their houses either gone or in such disrepair that they were unlivable. There was no electricity. Water was undrinkable. Sewer systems were down. Incredibly, the telephones worked—sometimes. In less than 12 hours, Hugo had transformed our beautiful, tranquil Lowcountry into a war-torn, third-world country. It would take almost two years to rebuild.

*"If you have not evacuated yet, don't try. It's too late. The storm is almost on us. Get to high ground if you can. And may God bless your soul."* —Charlie Hall



ROB FOWLER  
TV2 Action Weather

Channel 2 meteorologist Rob Fowler gave hourly updates on the progress of the storm, including this report the afternoon of Thursday, September 21, 1989, just hours before Hugo made landfall. Fowler described hurricane-force winds extending 140 miles out from the center



Many businesses and residents prepared by boarding up properties (top center and left), sometimes spray-painting messages to the hurricane (Above) Beth and Joe Kolb of Sullivan's Island packing to evacuate

*"Hugo never wavered. The storm was locked and loaded with Charleston in its sights. This was disastrous for places like McClellanville in the storm's northeast quadrant, which takes the full brunt of the storm."*

—Rob Fowler, Channel 2 meteorologist

## Personal Experience

As Hugo neared the coast the afternoon of Thursday, September 21, I was battened down in my house in the Old Village area of Mount Pleasant. Grey, scudding clouds were whipping in from the east, bringing with them an uncommon sound: the roar of the surf on Sullivan's Island far across the marsh. As the sun set, the sky turned a menacing reddish-orange, an eerie copper with tinges of green. I poured myself a Scotch, fed the dogs and cats, and took what would be the last warm shower for a long time.

For a while, it was okay to watch the storm's building power from the porch. First came driving rain bands, with winds so strong that the drops flew by sideways and stung like buckshot on the skin. By dead dark, the night was howling with a relentless roar of thunder and lightning so constant it illuminated a sky wild with clouds racing by. Twice I saw the luminous greens, reds, and yellows of St. Elmo's fire.

Once it became too dangerous to venture out, I measured the storm's ferocity by sounds—the sickening moan of a tree being

pulled from its roots; the startling shotgun POW! of a snapping limb that would then fly wild and slam savagely into the side of the house; the fingernails-on-blackboard screech of a neighbor's tin roof being curled back and ripped from the rafters.

Finally, as Hugo closed in, the decibel level rose into one continuous scream—a ceaseless high-pitched whine fused with the thunderous growl of 100 freight trains. The barometric pressure dropped, and the cats began to howl, one so panicked it tried to claw its way up the

wall. I checked the barometer. It registered 28.1, the lowest I'd ever seen. The needle pointed to the word "hurricane." Hugo had arrived.

## Get Out Now!!!

We Lowcountry folks had gone through hurricanes before. There had been Hurricane Hazel in 1954 and Gracie in '59. We grew up knowing the importance of having boxes of candles, Sterno, canned food, water, and extra flashlight batteries on hand. Yet nothing in our experience prepared us for a storm with

PHOTOGRAPHS COURTESY OF (2) WCSD / PHOTONON2.COM & (2) WCSC / TV



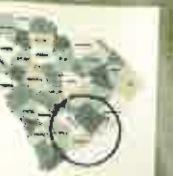
Live 5 weatherman the late Charlie Hall (at left) and news anchor Bill Sharpe continued reporting from their downtown studio until management forced them to evacuate. In recalling that time, Sharpe says, "Charlie was dreading what was coming, and you could hear it in his voice and see it in his face. But by sharing these fears, he may have saved lives."



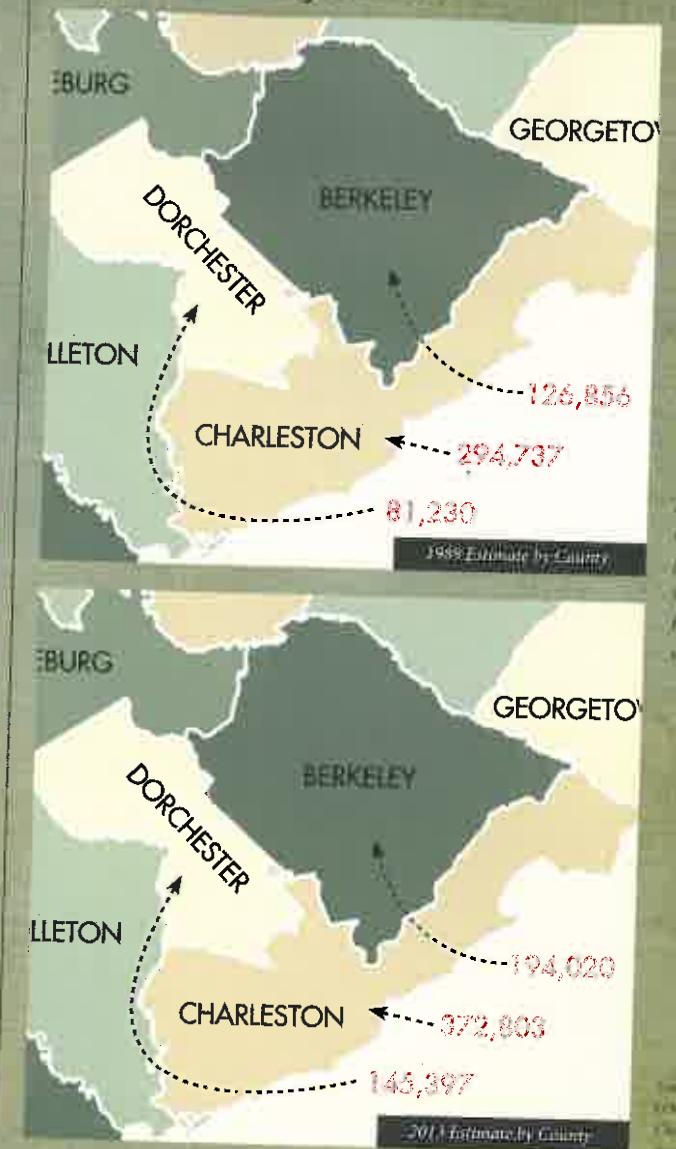
On Thursday at noon, Isle of Palms mayor, the late Carmen Bunch (left) reported that 75 percent of the island had been evacuated. "We might find one or two that have refused to leave," she told News 2, "We're taking down their names and those of their next of kin and letting them know that we warned them to get off. If they don't want to go—other than carrying them out and handcuffing them—we can't force them."

Riley, Jr. had ridden out hurricanes before. He was here for Gracie, which had peak winds of 125 mph. "We had been watching Hugo since its inception," Riley recalls. "But this was no Gracie. This was a Camille."

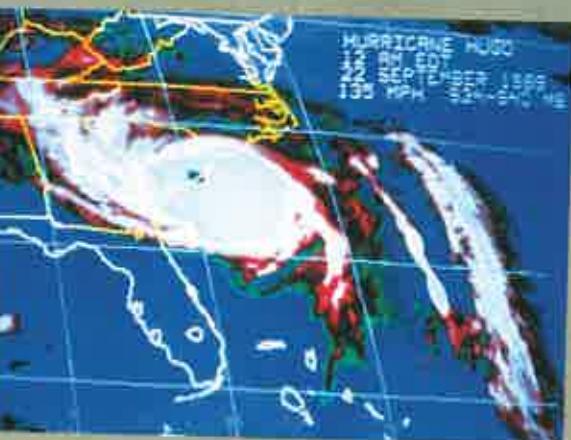
As powerful a Category Five storm as nature can create, Hurricane Camille hit the Gulf Coast in 1969. Camille's winds and 24-foot storm surge obliterated entire communities, vaporizing beachfront apartment complexes and high-rise hotels and killing 256 people, many of whom died because they refused



## Population Dynamics



Source: U.S. Census Bureau  
2010 Population Estimate  
Charleston County Sheriff's Office  
Charleston County Office of Emergency Services



This NOAA radar map documented the eye of Hugo on Charleston's coastline and 135-mpg winds at midday. (Top) The South Carolina National Guard was put on standby two days prior to the storm so they would be ready to help clear roads for emergency and repair crews and set up command posts, such as this one at King and Calhoun streets.

Local television and radio stations broadcast nonstop with evacuation instructions. Charleston County Council chair Linda Lombard was on camera constantly, shouting the message: "LEAVE! Leave NOW!"

(Above, left to right) Heavy rain caused eight- to 10-foot walls to inundate the Folly Beach coastline; bumper-to-bumper traffic on the interstate as people evacuated inland; the South Carolina National Guard military police were on hand to protect businesses from looting.

*"If we did anything right, we got people out. We saved lives."* —Mayor Joseph P. Riley, Jr.

to evacuate.

With Hugo making a beeline for Charleston, Riley contacted his Gulf Coast counterparts for advice. "They told me the most important thing was to order an early evacuation," he says. "But they also told me that people would not leave simply because I asked them to. That we needed to somehow strike a balance between fear and panic. That I needed to raise the tenor in my voice to communicate that lives were at risk. After one of my televised messages, even my wife said, 'Did you hear Joe's voice? I've

never heard it like that!'"

This near-panic set the tone for the days before Hugo hit. Local television and radio stations broadcast nonstop with evacuation instructions. Charleston County Council chair Linda Lombard was on camera constantly, shouting the message: "LEAVE! Leave NOW!" Likewise, the late Charlie Hall, weatherman for Channel Five since television's inception and a paterfamilias to Charlestonians, pressed the urgency for evacuation.

"It means something when a person as

trusted as Charlie Hall looks worried," says McClellanville native and author William P. Baldwin. "We were planning on staying at our house in the village until one of Charlie Hall's last reports. It was late in the afternoon, and the wind had already picked up. Hall said, 'If you have not evacuated yet, don't try. It's too late. The storm is almost on us. Get to high ground if you can.' When Hall ended the report tearfully, saying, 'And may God bless your soul,' that did it. We moved to a higher place." Given the extremity of the storm surge

PHOTOGRAPHS COURTESY OF (2) WCBD / (1) WCIV

PHOTOGRAPHS COURTESY OF (2) WCIV

in McClellanville, that decision likely saved their lives.

In Charleston, police went door to door in the peninsula's low-lying communities, telling people to evacuate to Gaillard Auditorium. Yet even with a mandatory evacuation on the barrier islands of Folly Beach, Sullivan's, and Isle of Palms, some people still hedged. "I was toying with the decision to evacuate until an Isle of Palms policeman came over in a boat and told us we had to go," says Goat Island resident Don Thompson. "That clinched the decision." For

those who refused to leave, authorities asked for the names of next of kin. When Hugo's waters wrenching Thompson's house off its foundations and moved it 30 feet, he was riding out the storm in Columbia.

Sadly, 35 deaths in South Carolina were caused by Hurricane Hugo. Yet because people evacuated, very few died from the storm surge, the major cause of death in any hurricane. Not one person on the peninsula perished from rising waters. "If we did anything right," says Mayor Riley about the evacuation process,

"we got people out. We saved lives."

## Best Laid Plans

"Hurricanes are notoriously unpredictable," explains Channel 2's Rob Fowler, who was the new kid on the meteorological block when Hugo hit in 1989. "For a while, some models predicted that the storm might veer to the north towards Myrtle Beach," he remembers. "As it turned out, Hugo never wavered. The storm was locked and loaded with Charleston in its sights. This was disastrous for places like



**HUGO**  
Tide Heights:  
Bull's Bay: 19.8 feet  
Isle of Palms: 15 feet  
Sullivan's Island: 13 feet  
Folly Beach: 11.9 feet  
Charleston: 10.4 feet



by the storm, McClellanville residents who were unable to evacuate and seeking a refuge were directed to shelter at Lincoln High School (pictured right, post-Hugo). Through an evacuation route completed in 1987, McClellanville residents evacuated the school's cafeteria at about 20 p.m. on September 21. It was "actually up to 10 feet above level," according to a U.S. Department of Commerce/NOAA National Weather Service report. "The tidal storm surge was measured to be at 16 feet at Lincoln High School."



*The men ended up crawling on their bellies, barely sheltered by the two-foot-high wall bordering the roof, until they reached the higher cafeteria roof, where they laid down amidst some pipes. At one point, Austin says that he saw an entire brick house float by, carried by the swirling waters of the surge. "We could hear the screams of the people below us," he says. "We were sure that if we were lucky enough to live through the night, we'd find 600 dead bodies in the cafeteria, drowned."*

PHOTOGRAPHS COURTESY OF U.S. COAST GUARD & U.S. COAST GUARD

PHOTOGRAPH COURTESY OF CHARLESTON POLICE DEPT. & (2) WCBD/CHARLESTON COUNTY

McClellanville in the storm's northeast quadrant, which takes the full brunt of the storm."

McClellanville resident Randy McClure had decided to leave his house on the Intracoastal Waterway to ride out the storm in his real-estate office in the village on reasonably high ground. His wife and two children, the youngest of whom was only a few months old, were driving to Charlotte. At the last minute, seeing his wife's concern, he chose to drive them Upstate himself. McClure, who served on the school board, knew the planned

shelter at Lincoln High School was entirely inadequate. "I'd spent a good part of the days before Hugo hit calling the EOC [Emergency Operations Center] and explaining that the designated shelter at Lincoln High was a disaster waiting to happen," he says, recalling the helplessness he felt trying to get them to change the location to the elementary school. "The elevation of the high school was only nine feet, three inches above sea level, and it was too close to the water. St. James Santee Elementary was further inland and had an elevation of

16 feet, five inches. The people at EOC kept telling me, 'Yes sir, we'll take care of it' or 'We're working on it.' The last thing I did before we drove Upstate was stop at a pay phone and call EOC one more time. They assured me the change had been made."

The shelter was never moved. That none of the some 600 people who spent the night of September 21st at Lincoln High were killed is one of Hugo's miracles. Then-principal Jennings Austin was at the school during Hugo and recalls that people began settling in around

4 p.m.: "We weren't real concerned at first. Even when the power went out around 9 p.m., leaving us in the spooky emergency lighting, it wasn't so bad. We could hear the wind howling outside but the building was built as solid as a rock. We hoped that we might get through the night without incident."

Around midnight, Austin was with deputy sheriff Charlie Dutart making a check of the school's L-shaped building. Most of the people were in the cafeteria/auditorium at the end of one of two long halls. Austin and Dutart were

at the far end of the other hall when water began seeping in. "When we first realized water was coming in, it was only up to our ankles," he recalls. "In what seemed an instant, the water was up to our knees, then to our waists. Apparently it was pouring into the classrooms where the pressure had broken out the air-conditioning units. There was no way to get back to the cafeteria. If we were going to live, we needed to find a way out."

Going into a classroom, the men grabbed an overhead projector from a table and tried to



Friday, September 22, 1 a.m.



Friday, September 22, 1 a.m.

An Associated Press article stated "23,000 people crowded 121 shelters throughout the state.... Hotels were full as far as 270 miles inland." Approximately 700 rode out the storm at Gaillard Auditorium (top left and right); others went to area schools (top center) such as James Simons Elementary (far left). This mother (left) escaped with her child to a hotel in North Charleston, where she was interviewed by WCBD News 2 during the eye.

*As Hugo closed in, the decibel level rose into one continuous scream—a ceaseless high-pitched whine fused with the thunderous growl of 100 freight trains.*

break the Plexiglas window. (The school's old glass and wooden windows had been replaced earlier that summer.) It wouldn't budge. After repeated attempts, the window finally broke. At this point, the water was chest-deep.

The men pushed outside into a raging chaos and started climbing up the building, away from the rising surge and onto the roof, only to be slammed down by the powerful winds. They ended up crawling on their bellies, barely sheltered by the two-foot-high wall bordering the roof, until they reached the higher cafeteria

*"Everybody was hugging, grinning, even laughing.... We were standing in waist-deep water, but we had survived."*  
—Jennings Austin, then principal of Lincoln High School

**HUGO FACTS**

35 deaths in S.C. were related to Hugo, including people who were drowned, crushed by homes and by trees, and in post-storm house fires.



The peninsula didn't escape the wrath of Hugo. Wind gusts of 105 mph, and nearly 11 feet of tidal surge washed through the area. The results included felled trees and power lines, damage to roofs and buildings, and boats tossed inland, such as this motor cruiser on Lockwood Boulevard (top) and these sailboats (right).



A flooded Colonial Lake (above) looking west down Ashley Avenue



roof, where they laid down amidst some pipes. At one point, Austin says that he saw an entire brick house float by, carried by the swirling waters of the surge. "We could hear the screams of the people below us," he says. "We were sure that if we were lucky enough to live through the night, we'd find 600 dead bodies in the cafeteria, drowned."

In fact, those in the cafeteria were fighting a watery hell in darkness, doing everything possible to keep their heads above the rising waters. They frantically placed tables on tables,

chairs on tables, finally crowding onto the stage area, where they repeated the stacking of tables and chairs and climbed atop, holding their babies and children overhead.

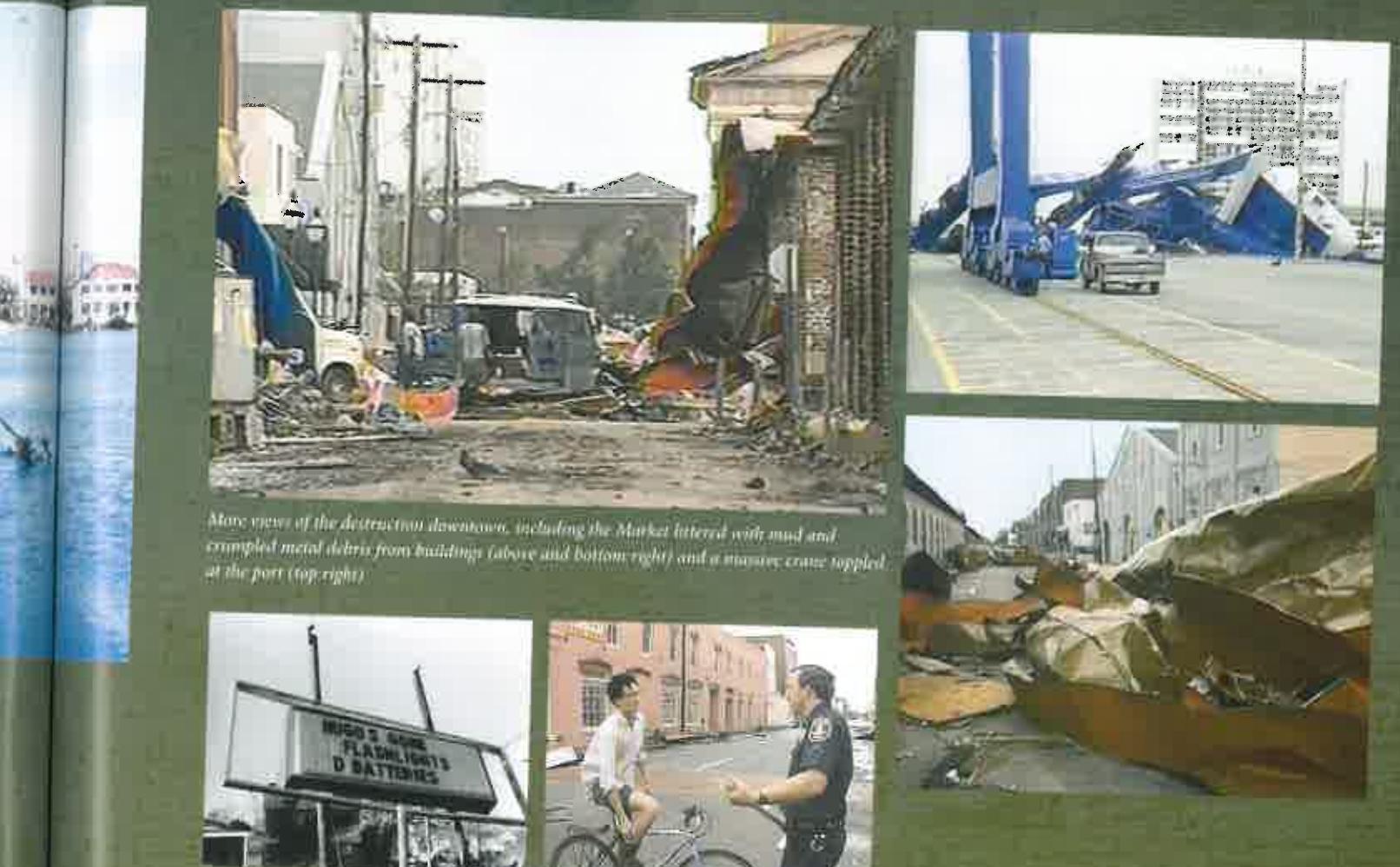
EMT paramedic George Metts was in the cafeteria and later described the scene in his official report: "The enormity of our situation was staggering. We were totally trapped.... We were on our own, the water was still rising, and those that could [get there] were packed like sardines on the stage."

His group of 10 to 15 people consisted of

women, children, and a few men. "I noticed a nearby woman trying to hold up two children," he wrote. "I took one and held her above the water. She was a three-year-old named Tsara.... We stayed in chest-high water for several hours. I remember talking and singing to the child, trying to pass time." Later, around 3 a.m., someone on the roof knocked out a top windowpane on the opposite wall. Only a few dared cross to safety. "I knew the women couldn't swim across the cafeteria, and I knew I could not swim the distance with a

PHOTOGRAPHS BY (2) JOAN PERRY & COUNCIL OF (1) CHARLESTON POLICE DEPT.

PHOTOGRAPHS COURTESY OF (4) WCBD/ COUNCIL OF (1) DAVID FAUHABER



More views of the destruction downtown, including the Market littered with mud and collapsed metal debris from buildings (above and bottom right) and a massive crane tipped at the port (top right).



A sign in Mount Pleasant (above left) showed a return to business, not quite as usual. Downtown, a fishery owner (above right), attempting to check on his business, was given an order by one of the policemen standing to prevent looting.

three-year-old in tow, so I prayed along with everyone else," remembers Metts. Finally at about four or five that morning, the water level lowered. Miraculously, no one in the cafeteria was seriously injured.

At first light, people began coming out of the school, and Austin and the men were able to climb off the roof. "It was joyous," recalls Austin. "Everybody was hugging, grinning, even laughing. We were alive. We were standing in waist-deep water, but we had survived. What saved everybody inside

the school were the new Plexiglas windows. They buckled with the stress of water pressure but held. Otherwise, water would have poured in and completely inundated the interior of the school."

### Deceptive Eye

The previous night as Hugo's eye passed over Mount Pleasant, it brought a deceptive calm. For about a half hour, the winds stopped, and stars could be seen overhead. For some, this brought an opportunity to move to a safer

place, yet it could prove perilous since once the eye passed, the winds, now from the west, would hit with even more savage fury. The second half of the hurricane also brought the storm surge.

In Mount Pleasant at their house off Rifle Range Road, Mary White and her sister, Laverne, had gone outside during the lull of the storm's eye to search for a lost wallet. Suddenly they heard the roar of the surge coming towards them from Copahoe Sound. They started running, keeping just ahead of the water,

*"The next day it looked like a bomb had hit. We could see for miles to the horizon because the trees had either been cut in half like broken matchsticks or were gone completely."* —Johnny Cleary, Awendaw resident

Sunday, September 24 | 9 p.m.



*News 2 reported on the damage to the surrounding areas of McClellanville, including this cluster of houses and boats pulled up uprooted in houses. (Below) The Marneys shut the door down for a day so they could clean roads and check for losses.*



*Workers from Algon Wrenn LLC used helicopters to survey the decimated timberland. According to the National Weather Service, Hugo felled more than one billion board feet of lumber in the Francis Marion National Forest, permanently ending logging west of here.*

Sunday, September 24 | 6:30 p.m.



*EagleSky 2 offered aerial shots of the great ocean Hurricane Hugo. Three-quarters of the trees had been felled and the storm surge reached all the way to Highway 17, where a boat landed in the middle of the road.*



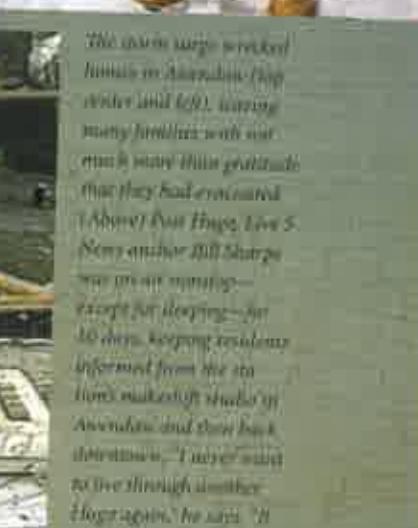
*Business and business piled atop each other, the economy of the decimated village of McClellanville in shambles. (Top) Just south of the town, Awendaw, a woman attempted to gather what was left of her family's furniture.*



*Twenty-nine of South Carolina's 46 counties were declared disaster areas. More than 40 percent of the state was without power. Damages in the U.S. totaled \$7 billion.*



*The storm surge wreaked havoc on Awendaw, the center and (left) leaving many families with not much more than gratitude than they had received. (Above) Fox Hugo Live 5 News anchor Bill Sharpe in the town of McClellanville, except for sleeping—but more, keeping residents informed from the storm's makeshift studio in Awendaw, and their back determination. "I never want to live through another Hurricane," he said. "It's really just hell."*



not stopping until they reached Highway 17, where they found refuge in a church. When they finally made it home the next morning, the house was intact. The surge, however, had wreaked havoc with the interior. There was even a shark in their living room.

Johnny Cleary was with his family at their farm at Buck Hall in Awendaw when he realized the house might not hold. "We felt like the three little pigs, running from the straw house to a stronger one," he recalls. "The wind was insane. The ditch between the properties was being flooded by the surge and looked like

rapids. I still can't believe we made it." Before Hugo, the houses had been sheltered by the deep woods of the Francis Marion National Forest. "The next day it looked like a bomb had hit," says Cleary. "We could see for miles to the horizon because the trees had either been cut in half like broken matchsticks or were gone completely." In fact, 1.3 million acres of forest had been destroyed—enough timber to build 660,000 new homes.

East Cooper resident Sammy Small had taken his motor cruiser up the Wando near Cainhoy to ride out the storm in safer waters. At the height of the storm, realizing he would have to abandon his sinking vessel, Small put on not one but three bright orange life vests. At least his family might be able to find his body afterwards, he thought. The next morning, he says that he stumbled through the marsh, amazed to be alive. Two men who had anchored their shrimp boat nearby had not been as lucky. Small found their bodies as he was trudging through the marsh to high land. The winds had been so strong they had blown the men's clothes off. Their boat had been reduced to splinters, entirely destroyed.

PHOTOGRAPH BY MIKE BURTON, MS COURTESY OF 131 WCB/DOUNTON2.COM  
PHOTOGRAPH BY MIKE BURTON, MS COURTESY OF 131 WCB/DOUNTON2.COM  
PHOTOGRAPH BY MIKE BURTON, MS COURTESY OF 131 WCB/DOUNTON2.COM

On the peninsula, the surge had overflowed the city, turning narrow streets into raging rivers—a swirling mayhem of churning salt water, floating cars, downed trees, and flying debris from the pieces and parts of roofs and piazzas that had been blown into smithereens by the hurricane winds. Despite being surrounded by water, Roper Hospital was operating successfully under emergency power until the surge knocked out the fuel lines that powered the generators. Braving the winds and rising waters, boiler operator David Johns and co-worker Daniel Dyer spent the night taking

turns going out into the storm, alternating every 30 minutes to wade through thigh-deep water to hand-pump fuel into the generators, thus keeping the hospital's life-support machines, operating rooms, and emergency lights working. For protection, Johns duct-taped his hard hat to his head and looped a thick rope around his waist to keep from being blown or washed away. "We knew it had to be done," Johns said later. "We were just there to do it."

## The Aftermath

The scope of Hugo's destruction was as immense

as the storm itself. Not only was the entire coastal region damaged from Edisto Island up to Myrtle Beach, the hurricane-force winds reached inland all the way to North Carolina. Meteorologists estimate that some 3,000 tornadoes were spawned as Hugo ripped a swath of destruction through the state. Twenty-nine of South Carolina's 46 counties were declared disaster areas. More than 40 percent of the state was without power. Damages in the U.S. totaled \$7 billion.

As the first line of defense against the sea, the barrier islands were hit particularly hard.



Folly Beach was already facing erosion times when Hugo hit. The Wharf (above) lived up to its name. (Below) Damages on Gout and Sullivan's islands.

(Top) The Gout Atlantic House restaurant perched above the ocean the day before the hurricane and (above) what was left the day after.



Some of Folly's front-beach homes were either entirely gone or reduced to sticks in the sand. All that remained of the famous fishing pier were pilings. The storm surge had completely inundated Sullivan's Island and Isle of Palms, leaving both in shambles. There wasn't even a way to reach them. The Isle of Palms Connector hadn't been built yet, and the only passage to either island was across the Ben Sawyer Bridge, now inoperable, sitting with one end cockeyed in the water. Hugo's winds had set the bridge spinning with such force that it had

"uncorked" itself from its center holding post. Because of the utter destruction on Sullivan's Island and Isle of Palms, the authorities placed them off-limits, even to residents, as a matter of public safety. Homeowners became understandably upset when they couldn't access their properties. Tempers flared. "I don't think people had any way of comprehending how bad it was," recalls former Sullivan's Island mayor Carl Smith, who was on Town Council at the time. "I could hardly believe the extent of the devastation. It was like the island had

been swept clean.

"I know it sounds cliché, but both islands were like a war zone," he continues. "Some streets were gone; most were impassable and covered with sand and debris. There wasn't any safe way onto Isle of Palms. The Breach Inlet bridge was intact, but the road to it on the Sullivan's side had been washed away. Every electrical line was down, and the gas lines were compromised. It was simply too dangerous for people to be there." Even the council members weren't allowed on the island; when

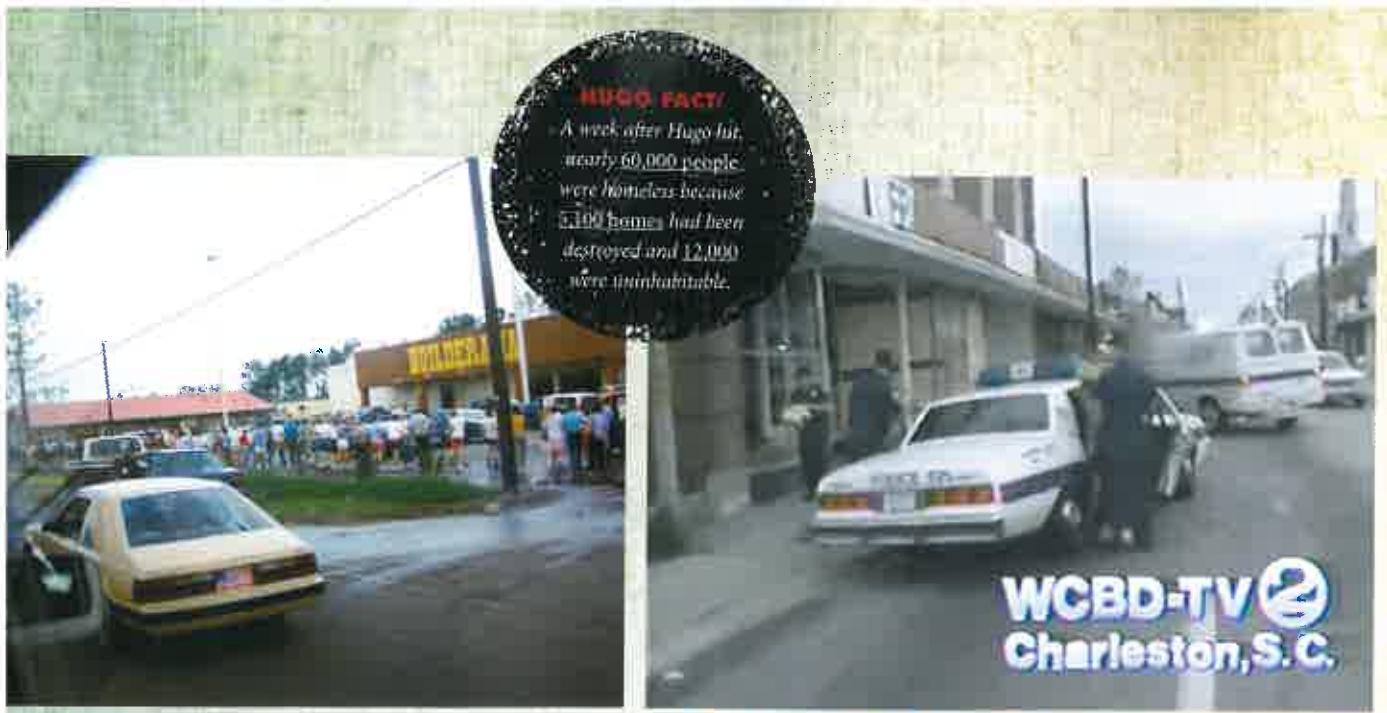
PHOTOGRAPHS BY (1) BUDDY MEDBERY & (2) ARNETTE LOVE, COURTESY OF (3) WCDOT, (4) COUNCIL 2, (5) WCDOT, (6) COUNCIL 2, (7) WCDOT, (8) COUNCIL 2, (9) WCDOT, (10) COUNCIL 2, (11) WCDOT, (12) COUNCIL 2, (13) WCDOT, (14) COUNCIL 2, (15) WCDOT, (16) COUNCIL 2, (17) WCDOT, (18) COUNCIL 2, (19) WCDOT, (20) COUNCIL 2, (21) WCDOT, (22) COUNCIL 2, (23) WCDOT, (24) COUNCIL 2, (25) WCDOT, (26) COUNCIL 2, (27) WCDOT, (28) COUNCIL 2, (29) WCDOT, (30) COUNCIL 2, (31) WCDOT, (32) COUNCIL 2, (33) WCDOT, (34) COUNCIL 2, (35) WCDOT, (36) COUNCIL 2, (37) WCDOT, (38) COUNCIL 2, (39) WCDOT, (40) COUNCIL 2, (41) WCDOT, (42) COUNCIL 2, (43) WCDOT, (44) COUNCIL 2, (45) WCDOT, (46) COUNCIL 2, (47) WCDOT, (48) COUNCIL 2, (49) WCDOT, (50) COUNCIL 2, (51) WCDOT, (52) COUNCIL 2, (53) WCDOT, (54) COUNCIL 2, (55) WCDOT, (56) COUNCIL 2, (57) WCDOT, (58) COUNCIL 2, (59) WCDOT, (60) COUNCIL 2, (61) WCDOT, (62) COUNCIL 2, (63) WCDOT, (64) COUNCIL 2, (65) WCDOT, (66) COUNCIL 2, (67) WCDOT, (68) COUNCIL 2, (69) WCDOT, (70) COUNCIL 2, (71) WCDOT, (72) COUNCIL 2, (73) WCDOT, (74) COUNCIL 2, (75) WCDOT, (76) COUNCIL 2, (77) WCDOT, (78) COUNCIL 2, (79) WCDOT, (80) COUNCIL 2, (81) WCDOT, (82) COUNCIL 2, (83) WCDOT, (84) COUNCIL 2, (85) WCDOT, (86) COUNCIL 2, (87) WCDOT, (88) COUNCIL 2, (89) WCDOT, (90) COUNCIL 2, (91) WCDOT, (92) COUNCIL 2, (93) WCDOT, (94) COUNCIL 2, (95) WCDOT, (96) COUNCIL 2, (97) WCDOT, (98) COUNCIL 2, (99) WCDOT, (100) COUNCIL 2, (101) WCDOT, (102) COUNCIL 2, (103) WCDOT, (104) COUNCIL 2, (105) WCDOT, (106) COUNCIL 2, (107) WCDOT, (108) COUNCIL 2, (109) WCDOT, (110) COUNCIL 2, (111) WCDOT, (112) COUNCIL 2, (113) WCDOT, (114) COUNCIL 2, (115) WCDOT, (116) COUNCIL 2, (117) WCDOT, (118) COUNCIL 2, (119) WCDOT, (120) COUNCIL 2, (121) WCDOT, (122) COUNCIL 2, (123) WCDOT, (124) COUNCIL 2, (125) WCDOT, (126) COUNCIL 2, (127) WCDOT, (128) COUNCIL 2, (129) WCDOT, (130) COUNCIL 2, (131) WCDOT, (132) COUNCIL 2, (133) WCDOT, (134) COUNCIL 2, (135) WCDOT, (136) COUNCIL 2, (137) WCDOT, (138) COUNCIL 2, (139) WCDOT, (140) COUNCIL 2, (141) WCDOT, (142) COUNCIL 2, (143) WCDOT, (144) COUNCIL 2, (145) WCDOT, (146) COUNCIL 2, (147) WCDOT, (148) COUNCIL 2, (149) WCDOT, (150) COUNCIL 2, (151) WCDOT, (152) COUNCIL 2, (153) WCDOT, (154) COUNCIL 2, (155) WCDOT, (156) COUNCIL 2, (157) WCDOT, (158) COUNCIL 2, (159) WCDOT, (160) COUNCIL 2, (161) WCDOT, (162) COUNCIL 2, (163) WCDOT, (164) COUNCIL 2, (165) WCDOT, (166) COUNCIL 2, (167) WCDOT, (168) COUNCIL 2, (169) WCDOT, (170) COUNCIL 2, (171) WCDOT, (172) COUNCIL 2, (173) WCDOT, (174) COUNCIL 2, (175) WCDOT, (176) COUNCIL 2, (177) WCDOT, (178) COUNCIL 2, (179) WCDOT, (180) COUNCIL 2, (181) WCDOT, (182) COUNCIL 2, (183) WCDOT, (184) COUNCIL 2, (185) WCDOT, (186) COUNCIL 2, (187) WCDOT, (188) COUNCIL 2, (189) WCDOT, (190) COUNCIL 2, (191) WCDOT, (192) COUNCIL 2, (193) WCDOT, (194) COUNCIL 2, (195) WCDOT, (196) COUNCIL 2, (197) WCDOT, (198) COUNCIL 2, (199) WCDOT, (200) COUNCIL 2, (201) WCDOT, (202) COUNCIL 2, (203) WCDOT, (204) COUNCIL 2, (205) WCDOT, (206) COUNCIL 2, (207) WCDOT, (208) COUNCIL 2, (209) WCDOT, (210) COUNCIL 2, (211) WCDOT, (212) COUNCIL 2, (213) WCDOT, (214) COUNCIL 2, (215) WCDOT, (216) COUNCIL 2, (217) WCDOT, (218) COUNCIL 2, (219) WCDOT, (220) COUNCIL 2, (221) WCDOT, (222) COUNCIL 2, (223) WCDOT, (224) COUNCIL 2, (225) WCDOT, (226) COUNCIL 2, (227) WCDOT, (228) COUNCIL 2, (229) WCDOT, (230) COUNCIL 2, (231) WCDOT, (232) COUNCIL 2, (233) WCDOT, (234) COUNCIL 2, (235) WCDOT, (236) COUNCIL 2, (237) WCDOT, (238) COUNCIL 2, (239) WCDOT, (240) COUNCIL 2, (241) WCDOT, (242) COUNCIL 2, (243) WCDOT, (244) COUNCIL 2, (245) WCDOT, (246) COUNCIL 2, (247) WCDOT, (248) COUNCIL 2, (249) WCDOT, (250) COUNCIL 2, (251) WCDOT, (252) COUNCIL 2, (253) WCDOT, (254) COUNCIL 2, (255) WCDOT, (256) COUNCIL 2, (257) WCDOT, (258) COUNCIL 2, (259) WCDOT, (260) COUNCIL 2, (261) WCDOT, (262) COUNCIL 2, (263) WCDOT, (264) COUNCIL 2, (265) WCDOT, (266) COUNCIL 2, (267) WCDOT, (268) COUNCIL 2, (269) WCDOT, (270) COUNCIL 2, (271) WCDOT, (272) COUNCIL 2, (273) WCDOT, (274) COUNCIL 2, (275) WCDOT, (276) COUNCIL 2, (277) WCDOT, (278) COUNCIL 2, (279) WCDOT, (280) COUNCIL 2, (281) WCDOT, (282) COUNCIL 2, (283) WCDOT, (284) COUNCIL 2, (285) WCDOT, (286) COUNCIL 2, (287) WCDOT, (288) COUNCIL 2, (289) WCDOT, (290) COUNCIL 2, (291) WCDOT, (292) COUNCIL 2, (293) WCDOT, (294) COUNCIL 2, (295) WCDOT, (296) COUNCIL 2, (297) WCDOT, (298) COUNCIL 2, (299) WCDOT, (300) COUNCIL 2, (301) WCDOT, (302) COUNCIL 2, (303) WCDOT, (304) COUNCIL 2, (305) WCDOT, (306) COUNCIL 2, (307) WCDOT, (308) COUNCIL 2, (309) WCDOT, (310) COUNCIL 2, (311) WCDOT, (312) COUNCIL 2, (313) WCDOT, (314) COUNCIL 2, (315) WCDOT, (316) COUNCIL 2, (317) WCDOT, (318) COUNCIL 2, (319) WCDOT, (320) COUNCIL 2, (321) WCDOT, (322) COUNCIL 2, (323) WCDOT, (324) COUNCIL 2, (325) WCDOT, (326) COUNCIL 2, (327) WCDOT, (328) COUNCIL 2, (329) WCDOT, (330) COUNCIL 2, (331) WCDOT, (332) COUNCIL 2, (333) WCDOT, (334) COUNCIL 2, (335) WCDOT, (336) COUNCIL 2, (337) WCDOT, (338) COUNCIL 2, (339) WCDOT, (340) COUNCIL 2, (341) WCDOT, (342) COUNCIL 2, (343) WCDOT, (344) COUNCIL 2, (345) WCDOT, (346) COUNCIL 2, (347) WCDOT, (348) COUNCIL 2, (349) WCDOT, (350) COUNCIL 2, (351) WCDOT, (352) COUNCIL 2, (353) WCDOT, (354) COUNCIL 2, (355) WCDOT, (356) COUNCIL 2, (357) WCDOT, (358) COUNCIL 2, (359) WCDOT, (360) COUNCIL 2, (361) WCDOT, (362) COUNCIL 2, (363) WCDOT, (364) COUNCIL 2, (365) WCDOT, (366) COUNCIL 2, (367) WCDOT, (368) COUNCIL 2, (369) WCDOT, (370) COUNCIL 2, (371) WCDOT, (372) COUNCIL 2, (373) WCDOT, (374) COUNCIL 2, (375) WCDOT, (376) COUNCIL 2, (377) WCDOT, (378) COUNCIL 2, (379) WCDOT, (380) COUNCIL 2, (381) WCDOT, (382) COUNCIL 2, (383) WCDOT, (384) COUNCIL 2, (385) WCDOT, (386) COUNCIL 2, (387) WCDOT, (388) COUNCIL 2, (389) WCDOT, (390) COUNCIL 2, (391) WCDOT, (392) COUNCIL 2, (393) WCDOT, (394) COUNCIL 2, (395) WCDOT, (396) COUNCIL 2, (397) WCDOT, (398) COUNCIL 2, (399) WCDOT, (400) COUNCIL 2, (401) WCDOT, (402) COUNCIL 2, (403) WCDOT, (404) COUNCIL 2, (405) WCDOT, (406) COUNCIL 2, (407) WCDOT, (408) COUNCIL 2, (409) WCDOT, (410) COUNCIL 2, (411) WCDOT, (412) COUNCIL 2, (413) WCDOT, (414) COUNCIL 2, (415) WCDOT, (416) COUNCIL 2, (417) WCDOT, (418) COUNCIL 2, (419) WCDOT, (420) COUNCIL 2, (421) WCDOT, (422) COUNCIL 2, (423) WCDOT, (424) COUNCIL 2, (425) WCDOT, (426) COUNCIL 2, (427) WCDOT, (428) COUNCIL 2, (429) WCDOT, (430) COUNCIL 2, (431) WCDOT, (432) COUNCIL 2, (433) WCDOT, (434) COUNCIL 2, (435) WCDOT, (436) COUNCIL 2, (437) WCDOT, (438) COUNCIL 2, (439) WCDOT, (440) COUNCIL 2, (441) WCDOT, (442) COUNCIL 2, (443) WCDOT, (444) COUNCIL 2, (445) WCDOT, (446) COUNCIL 2, (447) WCDOT, (448) COUNCIL 2, (449) WCDOT, (450) COUNCIL 2, (451) WCDOT, (452) COUNCIL 2, (453) WCDOT, (454) COUNCIL 2, (455) WCDOT, (456) COUNCIL 2, (457) WCDOT, (458) COUNCIL 2, (459) WCDOT, (460) COUNCIL 2, (461) WCDOT, (462) COUNCIL 2, (463) WCDOT, (464) COUNCIL 2, (465) WCDOT, (466) COUNCIL 2, (467) WCDOT, (468) COUNCIL 2, (469) WCDOT, (470) COUNCIL 2, (471) WCDOT, (472) COUNCIL 2, (473) WCDOT, (474) COUNCIL 2, (475) WCDOT, (476) COUNCIL 2, (477) WCDOT, (478) COUNCIL 2, (479) WCDOT, (480) COUNCIL 2, (481) WCDOT, (482) COUNCIL 2, (483) WCDOT, (484) COUNCIL 2, (485) WCDOT, (486) COUNCIL 2, (487) WCDOT, (488) COUNCIL 2, (489) WCDOT, (490) COUNCIL 2, (491) WCDOT, (492) COUNCIL 2, (493) WCDOT, (494) COUNCIL 2, (495) WCDOT, (496) COUNCIL 2, (497) WCDOT, (498) COUNCIL 2, (499) WCDOT, (500) COUNCIL 2, (501) WCDOT, (502) COUNCIL 2, (503) WCDOT, (504) COUNCIL 2, (505) WCDOT, (506) COUNCIL 2, (507) WCDOT, (508) COUNCIL 2, (509) WCDOT, (510) COUNCIL 2, (511) WCDOT, (512) COUNCIL 2, (513) WCDOT, (514) COUNCIL 2, (515) WCDOT, (516) COUNCIL 2, (517) WCDOT, (518) COUNCIL 2, (519) WCDOT, (520) COUNCIL 2, (521) WCDOT, (522) COUNCIL 2, (523) WCDOT, (524) COUNCIL 2, (525) WCDOT, (526) COUNCIL 2, (527) WCDOT, (528) COUNCIL 2, (529) WCDOT, (530) COUNCIL 2, (531) WCDOT, (532) COUNCIL 2, (533) WCDOT, (534) COUNCIL 2, (535) WCDOT, (536) COUNCIL 2, (537) WCDOT, (538) COUNCIL 2, (539) WCDOT, (540) COUNCIL 2, (541) WCDOT, (542) COUNCIL 2, (543) WCDOT, (544) COUNCIL 2, (545) WCDOT, (546) COUNCIL 2, (547) WCDOT, (548) COUNCIL 2, (549) WCDOT, (550) COUNCIL 2, (551) WCDOT, (552) COUNCIL 2, (553) WCDOT, (554) COUNCIL 2, (555) WCDOT, (556) COUNCIL 2, (557) WCDOT, (558) COUNCIL 2, (559) WCDOT, (560) COUNCIL 2, (561) WCDOT, (562) COUNCIL 2, (563) WCDOT, (564) COUNCIL 2, (565) WCDOT, (566) COUNCIL 2, (567) WCDOT, (568) COUNCIL 2, (569) WCDOT, (570) COUNCIL 2, (571) WCDOT, (572) COUNCIL 2, (573) WCDOT, (574) COUNCIL 2, (575) WCDOT, (576) COUNCIL 2, (577) WCDOT, (578) COUNCIL 2, (579) WCDOT, (580) COUNCIL 2, (581) WCDOT, (582) COUNCIL 2, (583) WCDOT, (584) COUNCIL 2, (585) WCDOT, (586) COUNCIL 2, (587) WCDOT, (588) COUNCIL 2, (589) WCDOT, (590) COUNCIL 2, (591) WCDOT, (592) COUNCIL 2, (593) WCDOT, (594) COUNCIL 2, (595) WCDOT, (596) COUNCIL 2, (597) WCDOT, (598) COUNCIL 2, (599) WCDOT, (600) COUNCIL 2, (601) WCDOT, (602) COUNCIL 2, (603) WCDOT, (604) COUNCIL 2, (605) WCDOT, (606) COUNCIL 2, (607) WCDOT, (608) COUNCIL 2, (609) WCDOT, (610) COUNCIL 2, (611) WCDOT, (612) COUNCIL 2, (613) WCDOT, (614) COUNCIL 2, (615) WCDOT, (616) COUNCIL 2, (617) WCDOT, (618) COUNCIL 2, (619) WCDOT, (620) COUNCIL 2, (621) WCDOT, (622) COUNCIL 2, (623) WCDOT, (624) COUNCIL 2, (625) WCDOT, (626) COUNCIL 2, (627) WCDOT, (628) COUNCIL 2, (629) WCDOT, (630) COUNCIL 2, (631) WCDOT, (632) COUNCIL 2, (633) WCDOT, (634) COUNCIL 2, (635) WCDOT, (636) COUNCIL 2, (637) WCDOT, (638) COUNCIL 2, (639) WCDOT, (640) COUNCIL 2, (641) WCDOT, (642) COUNCIL 2, (643) WCDOT, (644) COUNCIL 2, (645) WCDOT, (646) COUNCIL 2, (647) WCDOT, (648) COUNCIL 2, (649) WCDOT, (650) COUNCIL 2, (651) WCDOT, (652) COUNCIL 2, (653) WCDOT, (654) COUNCIL 2, (655) WCDOT, (656) COUNCIL 2, (657) WCDOT, (658) COUNCIL 2, (659) WCDOT, (660) COUNCIL 2, (661) WCDOT, (662) COUNCIL 2, (663) WCDOT, (664) COUNCIL

## Radar technology



**Then:** The National Weather Service (NWS) used a network of WSR-57 and WSR-74 radars—Weather Surveillance Radars—designed in 1957 and '74 respectively. They offered reflectivity data but nothing in regards to wind speeds.

**Now:** NWS uses a network of Doppler radars—WSR-88D, or Weather Surveillance Radars designed in 1988 with Doppler—which can provide data on precipitation as well as wind speed and direction.



People formed long lines at area stores (above and below) in hopes of getting the basic necessities and perhaps, if lucky, a generator. Others queued up at the American Red Cross, which provided meals in numerous shelters and on mobile feeding routes for 30 days (right).



(Above) News 2 reported that more than 100 looters were arrested in Charleston and neighboring counties the week after the storm. Dawn-to-dusk curfews and martial law enforced by the National Guard, SLED, State Highway Patrol, and the police kept looting in check.

*The following months were ones of never-ending cleanup, executed to the rasping whines of chain saws and a sky filled with the incessant, clattering racket of emergency helicopters.*

the incessant, clattering racket of emergency helicopters. Neighborhoods took on a circus-like appearance, with almost every other roof wreathed in garish blue plastic covering a gaping hole or missing shingles taken by the wind. Streets became canyons framed by seven-foot walls of debris.

On the Isle of Palms, a giant burn area was created in the location of the current county park to get rid of the refuse on the two islands. For months, a huge, towering inferno of burning trash was tended constantly as dump trucks

rolled in, feeding the flames with pieces and parts of what had been our houses, gardens, trees—our lives. “It looked surreal,” recalls Thompson, the Goat Island resident whose home was deposited 30 feet from its foundation.

“Like something out of Hades. Fires constantly going, big and small, and against the glowing embers you could see the people who tended the fires moving like shadows. It looked like Plato’s cave against a fiery hell.”

Attempts at looting and price gouging were swiftly quashed. When out-of-town carpet-

baggers tried selling ice and bottled water for \$10 a pop, they were stopped cold by Mayor Riley who made it abundantly clear: “We will NOT tolerate gouging.”

Despite efforts to stay positive and work toward a common good, Hugo undeniably took a toll on the psyche. Anxiety and tensions were high. Issues with insurance companies abounded, not only raising tempers but causing maddening delays in rebuilding. Just living amidst seemingly endless piles of debris was soul-crushing.

“With no power for so long, it became a very depressing thing to live through, that recovery,” recalls Channel Five news anchor Bill Sharpe, who was on the air almost non-stop before and after Hugo hit. “It affected us emotionally and physically. Our bodies hurt from working so hard to get things cleaned up. But it took an emotional toll as well. You saw it everywhere. Tempers flaring over minor things; arguments over nothing. But I know that my trying to help others through the information our station was providing on

air helped me get through it. And I think that feeling of people helping others was pervasive throughout the whole Lowcountry.”

### Next Time?

Shortly after Hugo, a friend of mine foolishly stated with grand authority, “Hugo was the storm of the century. We won’t see another like it for 100 years.” If that were only true. There have been times when the Lowcountry has had as many as three hurricane strikes in a single year. Historically, we’re just as likely to go

through periods with years-long gaps between storms. As Rob Fowler says, “The question isn’t if but when the next storm will hit us.” There will always be another hurricane.

Are we prepared? Since Hugo—very much because of Hugo—building codes are more stringent than before. Also, the science of hurricane prediction is so highly sophisticated today that computer models can sometimes accurately predict the direction of a storm weeks before it makes landfall. “It’s not perfect,” says Fowler. “It is never going to be. But the models continually amaze

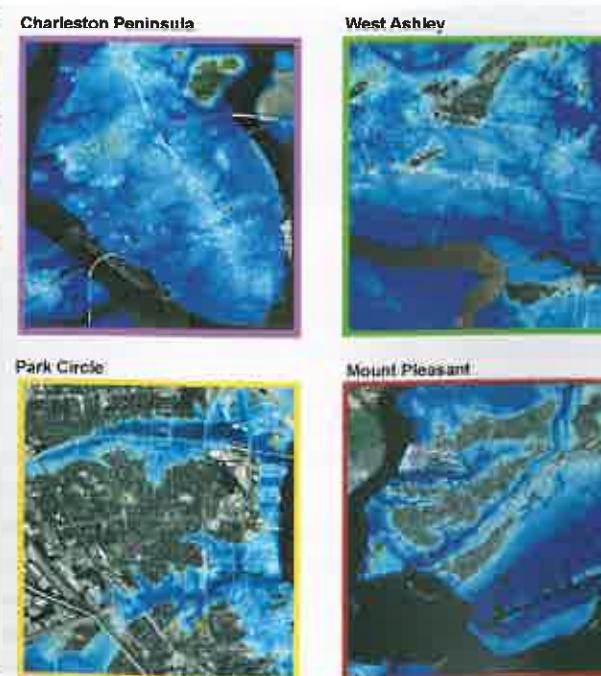
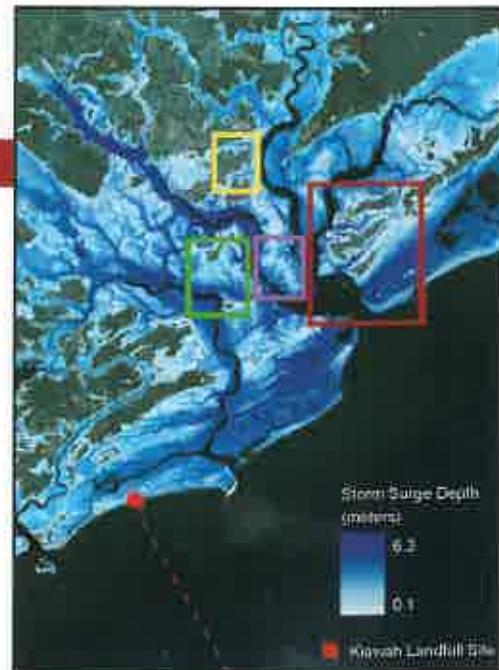
PHOTOGRAPHS COURTESY OF WCBD-TV SCIENCE CENTER  
PHOTOGRAPHS COURTESY OF THE NATIONAL WEATHER SERVICE DOCUMENTATION CENTER  
PHOTOGRAPHS BY LIJOAN PERRY, COURTESY OF WCBD/CHARLESTON, SC



A truck convoy bearing clothes, food, dry ice, and more pulled into McClellanville (top). The volume of supplies flooding into the Lowcountry was overwhelming. The Army was called in to assist, and more than 200 soldiers helped organize items to be shipped to rural areas. A California-based software company set up a computer database (above) to better connect needs and supplies so that nothing would be wasted. Mayor Riley rallied for recovery, including at a concert (right) to bring the community together. His T-shirt reads, "Charleston, SC: We're going strong."



Anxiety and tensions were high. Issues with insurance companies abounded.... Just living amidst seemingly endless piles of debris was soul-crushing.



A NOAA inundation map shows what the storm surge over the peninsula and surrounding communities would have been—up to four feet higher in some areas—if Hugo had made landfall 20 miles south at Kiawah Island.

PHOTOGRAPHS COURTESY OF (2) WCVB-TV, ABC  
(2) CHARLESTON POLICE DEPT.

PHOTOGRAPHS COURTESY OF (2) WCVB-TV, ABC  
& (1) CHARLESTON POLICE DEPT.



As Don Thompson's home on Goat Island was set back onto its foundation (above), the telephone rang. Like many other residents who went through the storm, Thompson has maintained a land line and kept his "Hugo phone" (top)—just in case.



Two weeks after Hugo, Oprah Winfrey broadcast her popular daytime show from the King Street Palace theater, raising \$1 million in funds and national awareness.

(Top) Frustrated with the federal government's slow aid response—it took the Federal Emergency Management Agency (FEMA) a full week to open its first disaster center in South Carolina—Senator Fritz Hollings called FEMA "the sorriest bunch of bureaucratic jackasses I've ever worked with in my life" on the Senate floor. He later called for a federal investigation of the agency. (Left) SCE&G reported that more than 75 percent of their systems were destroyed. Electrical crews—some 2,500 workers—from across the South arrived to help, working 16 hour days, seven days a week to restore power.

*"I know that my trying to help others... on air helped me get through it... that feeling of people helping others was pervasive throughout the Lowcountry."*

—Bill Sharpe, Live 5 News anchor

me with their precision. They give us weather casters a lot more confidence that what we are telling people is accurate."

When asked if they would stay the next time a major storm threatens, everyone interviewed for this article answered with an emphatic "No!" They would not only evacuate, but evacuate early. Yet Fowler brings up an interesting point: what percent of current Lowcountry residents experienced Hugo? "When I speak to groups, I ask for a show of hands to see how many went through Hugo. In the years right after the storm, at least two-thirds raised their

hands. That number now is down to about one-third," he says. "A lot of these people are new to the Lowcountry. They have never experienced anything like a hurricane before. Some weren't even born when Hugo came through."

Looking at the tall stands of trees, beautiful homes, and sweeping views of the Lowcountry today, it is almost impossible to believe that 25 years ago these same vistas were scenes of utter destruction. Yet nature rebuilds; trees grow back. In large measure because of Hugo insurance money, Charleston came out gleaming with revitalized glory. Communities

mushroomed in places where only farms and forests had been before. All seems secure and safe—an enviable place to call home.

And indeed it is—just don't let down your guard during the months of June through November. Some day the winds will blow again, and the tides will rise. Heed the warnings. Keep those flashlight batteries on the ready. And if the authorities say "evacuate," get the hell out of town.

Web EXTRAS  
More on Hugo:  
• Photos and full story  
[charlestondmag.com/Hugo](http://charlestondmag.com/Hugo)