coast just east of Grand Isle this morning and reach the Louisiana/Mississippi border area this afternoon. Conditions will continue to steadily deteriorate over central and southeastern Louisiana, southern Mississippi, and southern Alabama throughout the day. . . . Coastal storm surge flooding of 18 to 22 feet above normal tide levels, locally as high as 28 feet, along with large and dangerous battering waves, can be expected near and to the east of where the center makes landfall. Some levees in the greater New Orleans area could be overtopped."

From C Cooper and R. Block, Disaster: Hurricane Katrina and the Failure of Homeland Security (2006)

6

THE UNDODGED BULLET

Jackson Barracks, the New Orleans armory of the Louisiana National Guard, sits at the southeastern edge of the city center, in the Lower Ninth Ward, just five miles or so from the French Quarter. Founded in 1832 on an $87,000 grant from President Andrew Jackson, the barracks survived slave uprisings and civil war as well as "distrustful" Creoles who chafed under American rule in the decades following the Louisiana Purchase. Over the years, Jackson Barracks has weathered all manner of floods and hurricanes, including Hurricane Betsy in 1965, which breached a levee only a mile or so from the garrison gates and flooded the Lower Ninth Ward and the Arabi neighborhood in St. Bernard Parish.

There is a common misperception that the city's Lower Ninth Ward neighborhood sits on some of the lowest, most flood-prone ground in New Orleans. In fact, most of this district, Jackson Barracks included, sits above sea level or nearly so. This is not a flood-prone area—except when the levee fails. And even in 1965, the National Guard garrison stayed dry. "Jackson Barracks had never flooded—not as long as anyone can remember," said Colonel Pete

Schneider, a spokesman for the Louisiana National Guard. But the streak was about to end.

As the main southern armory for the Louisiana National Guard, Jackson Barracks was also the front-line command center for the state's response to Hurricane Katrina. At 8:10 A.M. on Monday, August 29, Bennett Landreneau, the commanding general of the Louisiana National Guard, was in the state's emergency operations center in Baton Rouge, fielding a call from an airman in a guard shack at Jackson Barracks. The airman, who was standing near the northern perimeter of the barracks compound alongside Claiborne Avenue, began delivering a standard report on conditions at the garrison: strong winds, little rain—normal conditions, considering that a hurricane was raging outside.

As Landreneau later recounted the conversation, the airman paused in midreport. "Just a minute, sir, let me check something," he said.

And then the airman was back and talking fast, a hint of panic creeping into his voice. "Sir, I don't know why but there must be a foot or two of water coming down Claiborne. No, check that—three feet." The airman paused for breath. "Sir, I don't know what's happened but there are cars floating down Claiborne Avenue—it looks like a river."

Within a few hours, the entire National Guard compound was sitting under eight feet or more of floodwater. Though the Guard had moved its aircraft and most of its engineering equipment in advance of the storm, much of the rest of what it had in the armory—a collection of rifles for a brigade's worth of soldiers and twenty-six high-water troop transport trucks—sank under the murk and were essentially lost. If there had been any doubt that the state of Louisiana would need federal help to cope with Katrina, the point had just been hammered home. Even as the storm raged outside, the state's front-line defense had just lost its command center; even as the winds blew, the state's National Guard was forced to cease all normal activity in a mad rush to reconstitute its command. Katrina had barely made landfall when it put the Guard in retreat—to the Louisiana Superdome, where about 260 soldiers had already been pre-staged in advance of the storm.

As it happened, Katrina wasn't the textbook doomsday storm that had been predicted. Though larger than most hurricanes, the storm lumbered ashore much diminished from its Category 5 strength of just the day before. Katrina made landfall about fifty-five miles south of New Orleans, near Buras, Louisiana, just after dawn on Monday as a large Category 3 storm, with 125-mile-per-hour winds.

Katrina then moved east back into open water and then north, making a second landfall near the Louisiana-Mississippi line. The storm flat devastated the Mississippi coastline to an extent never seen in that state, not even when Hurricane Camille packed a 200-mile-per-hour punch. The surge broke tide gauges up and down the coast, but watermarks suggest that Mississippi may have been hit by a wave twenty-five feet tall, which slammed ashore between Bay St. Louis and Gulfport and drove some twelve miles inland, sweeping everything in its path. Many communities along the Mississippi coastline were literally taken down to slab. The storm knocked out bridges, moved buildings, and sent giant trees crashing to earth.

Louisiana got better treatment. Though the storm drenched the city of New Orleans with as much as twelve and a half inches of rain in some spots, many areas in the metropolitan area received less than half that amount. The storm surge that hit the city's lakefront area was less than twelve feet at its peak, which is in the range of what can be handled by that area's hurricane protection system. Sustained winds in the city itself topped out at just above the minimum for a hurricane—a good blow, certainly, but not on par with the superstorms of yesteryear, such as Hugo and Andrew or the imagined ones, such as Hurricane Pam. And though the wind and rain caused plenty of damage in New Orleans, Katrina didn't leave the city in splinters in a way that Pam's creators had envisioned.

To be sure, Katrina caused plenty of the usual hurricane-related mayhem in New Orleans. Across the city, Katrina's winds killed the electrical grid, cutting power to the Superdome and pretty much everywhere else. The Dome, rated for 160-mile-per-hour winds, was damaged when the wind caught a piece of the white Teflon membrane that covered its roof and shredded it. Two vents at the top of the Superdome were torn off, which allowed rainwater to cascade onto evacuees some nineteen stories below. In streets adjacent to the Superdome, skyscrapers lost windows by the hundreds, and large pieces of public art crashed to the ground.

Closer to Katrina's second landfall, the twin-span interstate bridge over Lake Pontchartrain that connects eastern New Orleans to Slidell was reduced to a series of dashes, with dozens of concrete segments either shoved aside or toppled by Katrina's wind. Aluminum power poles along the interstate collapsed, and in eastern New Orleans water pooled in vast lakes.

Farther west, along the grand boulevards near the city center, three-hundred-year-old oak trees crashed onto the sidewalks and many New Orleans streets were jungles of broken limbs and dangling electrical wires. As the city's venerable oaks came crashing down, they wrenched gas and water lines out of the earth, which caused plenty of localized flooding and sparked a number of fires. Shortly after Katrina hit, the city of New Orleans reported two buildings in the French Quarter had collapsed and seven other structures around the city were engulfed in flames, the Southern Yacht Club among them. Beyond the reach of firefighting crews, the Yacht Club, founded in 1849, was destined to burn to the ground.

Indeed, the city's lakefront was a Matterhorn of cabin cruisers and sailboats that Katrina's wind and water had heaped into huge piles along the shoreline. Several hangars at the city's Lakefront Airport were shredded by Katrina's wind. The lakefront's restaurant district was in splinters, and the Orleans Levee District, which had pulled back its men and equipment to a large maintenance shed in the Seventh Ward, found itself on an urban island, surrounded by floodwaters at least six feet deep.

Two parishes to the east and south of the city—St. Bernard and Plaquemines—received a wallop from Katrina's storm surge that all but wiped them out. In St. Bernard, a storm surge from Lake Borgne flopped over the low back levee of the parish with such force that it flung huge, outrigger shrimp boats into suburban neighborhoods and washed trophy-sized redfish inland to swim along the parish's flooded roadways. The massive surge swept across the parish like a broom, knocking out the electrical grid and most communications, and flipping cars and boats up onto the rooftops of tract homes. The stormwater ran with such force through the Murphy Oil refinery that it moved a half-filled, 65,000-barrel tank of crude oil off its concrete mooring. The tank flexed and then collapsed like an aluminum can, allowing some 1.1 million gallons of crude oil to cascade into the surrounding community of Meraux, tarring about 1,800 homes.

Stem to stern, virtually the entire parish of St. Bernard simply disappeared under the floodwaters, but Nita Hutter, a state representative from St. Bernard who had weathered the storm in the parish's community center, managed to get out an e-mail message to the governor's office. She said that 2,400 of the parish's homes were underwater. Her estimate was limited by her vista; in fact, virtually every structure in this parish of 67,000 residents—an estimated 27,000 homes and businesses—received some flood damage. And according to a rumor making the rounds that day, Plaquemines Parish—the thin jut of land where Katrina initially made landfall—had simply disappeared, replaced by open Gulf.

In the mind of the federal government, the destruction of the Guard's command center was not a measure of the scale of the catastrophe unfolding along the Gulf Coast. Nor was the word that a towering storm surge from the eastern side of Katrina had all but obliterated one hundred miles of Mississippi coastline. Eight feet of water that had sent hundreds of Lower Ninth Ward residents scurrying to their rooftops was no measure of the scale of the calamity in Washington's mind. And the scores of fires that were burning in the city set off no particular alarms.

Instead, there was a single threshold, a defining element that would determine whether Washington treated the storm as an average disaster or as the catastrophic doomsday scenario everyone had long feared. This threshold would determine the speed and scale of the response that the federal government would bring to bear on the ruined city. And it was a test that state and local officials—and even FEMA's senior staff—never fully understood. In this case, the benchmark was a single question: Had the levees been breached by Katrina's storm surge or had they simply been topped?

In the Department of Homeland Security in August 2005, planning was guided by the newly minted National Response Plan (NRP), which had been put into effect just four months earlier, in April. The NRP is an overwrought and complicated document that few people completely comprehended. And as Hurricane Katrina plowed ashore, this cumbersome and contradictory schematic of national disaster response was about to be put to a stern test.

Although advertised as an all-hazards plan, the NRP makes a sharp distinction between, on the one hand, garden-variety natural disasters and man-made accidents (such as fires, floods, train collisions, tornadoes, and the like), and on the other hand, catastrophic events that were larger and more severe. Standard disasters fall within the capability of local governments, backstopped by FEMA. A catastrophic event, by contrast, assumed that the states, perhaps several states, would be immediately overwhelmed—calling for an overwhelming response from the federal government. In such a scenario, FEMA assumes a supporting role to the Department of Homeland Security, and local officials effectively are bystanders.

Clearly, terrorist attacks are what the department had in mind for the catastrophic designation. When defining catastrophes the NRP waxes on about coordinated evidence collection, crime scene preservation, and the apprehension of perpetrators. In the minds of many, though not all, senior Homeland Security officials, certain large-scale natural disasters that affected a broad geographic area and caused a large number of deaths would also fit this rubric.

The NRP offers no clear guidance on what distinguishes a run-of-the-mill disaster from a catastrophic event. But generally, catastrophic events imperil the national leadership, echo through the national economy, and cause national disruptions. The NRP doesn't make it entirely clear who is responsible for deciding when a disaster reaches the threshold of catastrophe. One section says the designation comes automatically with a presidential disaster declaration, while another section suggests the secretary of homeland security must activate the plan himself. But once an event is designated as catastrophic, the secretary is in complete command of all federal assets. This centralization of authority is intended to speed the federal response and to increase the power and scope of relief efforts.

When the secretary activates the plan, he convenes a panel known as the Interagency Incident Management Group, or IIMG, a panel made up of expert officials from Homeland Security and other federal agencies. The IIMG flips the role of the federal government in times of disaster; instead of Washington waiting for state assistance requests and then fulfilling them, the IIMG is supposed to help Homeland Security anticipate the needs of local officials and push supplies to them before they even ask. All of this is supposed to make the federal response quicker.

In the run-up to Hurricane Katrina's landfall, there had been calls within the Department of Homeland Security and the White House to go preemptively to this higher level of response. But senior officials within the department opposed designating Katrina as catastrophic before it hit. Deputy Secretary Michael Jackson said the designation should be reserved exclusively for terrorist events. "It's not necessary," Jackson told those who had pressed him for days to activate the IIMG. "Brown has it all under control." Chertoff also opposed the idea of convening the IIMG. "I did not feel it was imperative to stand up an IIMG on a formal basis until this event took a different dimension," he said.

To others, such as Matthew Broderick, the director of the Homeland Security Operations Center, convening the IIMG didn't make sense before the disaster. ("You just got a lot of talent sitting around waiting for the fire," he later said.) But even after Katrina made landfall, he didn't see a need to convene the IIMG unless he saw proof positive that a catastrophe was indeed unfolding in New Orleans. If the city's system of levees and floodwalls had been seriously breached by

Hurricane Katrina and couldn't be repaired immediately, then Broderick and many of the top officials at Homeland Security would consider it a catastrophe, the implication being that New Orleans would continue to fill with water that couldn't be pumped out. If the levees had simply been overtopped by a storm surge, filling the streets with a finite amount of water that presumably could be removed with city drainage pumps, then the federal government would consider it a standard-issue hurricane, slightly more powerful than most, perhaps, but well within FEMA's capability.

To Broderick, an overtop—even a severe one—was "normal, typical, hurricane background stuff," he would later tell Senate investigators. "You know, we have floods in Pennsylvania all the time. We have floods in New Jersey all the time. Every time there's a hurricane, there's a flood." He would also say he had no idea that a large hurricane hitting New Orleans fit the federal government's very definition of a catastrophic event, as outlined in the fifteen most serious disaster scenarios that Homeland Security had compiled in 2004.

Broderick's view of what constituted a catastrophe was pivotal, because of his position as the commander of the HSOC. The agency played a prime role in advising whether the IIMG should be activated and was to be a key player when the panel was convened. Moreover, Broderick was responsible for giving Chertoff, his top deputies, and the White House virtually every bit of the information they would use to develop a feel for what was happening at the ground level of a disaster. Every day the HSOC delivers a report to Chertoff, which the secretary reads at 6:00 A.M. in his chauffeured car on the way to work. In times of unfolding disaster, the HSOC expands its list of recipients, issuing a series of special reports to the White House and certain other government officials.

As a military man, a retired Marine brigadier general with some thirty years of operational experience, Broderick spoke often of the "fog of war" and the unreliability of first reports, and therefore he was determined that the information he delivered to Chertoff and the White House be completely stripped of innuendo and speculation and boiled down to the coldest, hardest, verified facts. Unverifiable information, or material containing even small errors of fact, was simply not passed on. "One of the jobs of the HSOC is to not overreact, not get hysterical and get the facts because the first information, even the second, is usually woefully wrong," Broderick said. "And so you're trying to clarify it because the secretary or the president could be using what you're passing in news reports once you pass it to them. So you have to be careful that you're getting the details, and sometimes that takes time."

Under this rubric, much of the information Broderick collected in the aftermath of Hurricane Katrina wouldn't pass this rigorous standard and thus wouldn't be passed on. And that included eyewitness information, ground details with multiple corroborating sources, and even facts gathered specifically by people reporting directly to the HSOC. The discarded information involved a number of subjects, but on Monday, Broderick was focused on determining whether the flood protection system surrounding the New Orleans metropolitan area had suffered actual breaches or had just been overtopped by Katrina's storm surge on its pass through the area. "We were trying to get some clarity on that, pushing hard," Broderick would later say.

In the days following Katrina's landfall, Secretary Chertoff, President Bush, and other federal officials would argue that the city's levees and floodwalls didn't breach until a day after the storm had passed, and would refer to the levee breaches as "a second catastrophe" that, in Chertoff's words, "really caught everybody by surprise." Months later, Broderick and Chertoff would continue to maintain this position, in the face of overwhelming evidence to the contrary. But subsequent investigation by the Army Corps of Engineers offers powerful evidence that this simply wasn't true. In fact, in some cases, the opposite happened: The city's levees and floodwalls collapsed even before Katrina made landfall.

A twenty-foot section of the 17th Street Canal floodwall collapsed around 6:30 A.M. and probably began to collapse "catastrophically," the corps later said, at about 9:30 A.M. The corps based its reckoning on several eyewitnesses, including a man with a telescope in a nearby high-rise, as well as data from a nearby pump station that showed a swift drop in the canal's water level, suggesting the waterway was draining into the city. That places the failure of this particular breach while Katrina was still passing over the area. Similarly, stopped-clock data and eyewitness observations suggest the London Avenue Canal floodwall, which suffered two major failures, collapsed at roughly the same time.

Stopped clocks also pegged the collapse of the Industrial Canal levee on the Lower Ninth Ward side at about 7:30 A.M., which correlates with what the Jackson Barracks sentry told General Landreneau about a half hour later. On the other side of the Industrial Canal (which is also known as the Inner Harbor Navigation Canal), a pair of breaches apparently opened up before sunrise, perhaps several hours before the storm struck. This smaller breach, which received almost no notice by the press or the government, would flood a great deal of Gentilly and downtown New Orleans.

It was barely daylight on Monday when the Louisiana emergency operations center in Baton Rouge began receiving reports of levee and floodwall trouble, specifically in the Lower Ninth Ward, where water was already reported to be eight feet deep, and the lakefront area and eastern New Orleans, where a reported tidal surge of twenty feet was said to have crashed through Bayou Bienvenue, near the St. Bernard–Orleans Parish line. And it was barely daylight in Broderick's HSOC office in Washington when he started receiving the same reports.

Indeed, during a 7:30 A.M. phone call with the state, FEMA, the National Weather Service, and other agencies, New Orleans's disaster chief, Terry Ebbert, made clear that the city had not dodged a bullet by any stretch. The surge from Bayou Bienvenue, he said, "came up and breached the levee system in the canal, so we're faced with major flooding both in the east, East New Orleans and then out on the lakefront." Ebbert didn't elaborate on the breach or where it was located. Nobody pressed him for details.

At 8:00 A.M., the Transportation Security Administration made a report directly to the HSOC, saying that the Industrial Canal levee adjacent to the Lower Ninth Ward was breached and that floodwaters in the northeast side of the city, next to Lake Pontchartrain, "have already intruded on the first stories of some houses." At 8:14 A.M., the National Weather Service issued a report headed "flash flood warning," which went on to spell out the source of the flash flood: "A levee breach occurred along the Industrial Canal at Tennessee Street. Three to eight feet of water is expected due to the breach." This report, like all others from the agency, was almost certainly seen by the HSOC because a Weather Service representative sat in Broderick's command center.

In human terms, the Weather Service report would speak volumes to anyone familiar with the city. The Lower Ninth Ward, a neighborhood of 5,000 homes, is one of the city's most poverty-stricken areas, with 25 percent of its residents subsisting on an annual income of less than $10,000 a year. An estimated 32 percent of its households didn't have a car. From an evacuation standpoint, the Lower Ninth Ward was one of the city's most vulnerable.

At 8:36 A.M., not long after the National Weather Service issued its report, Matthew Greene, a FEMA official based at the National Hurricane Center in Miami, sent a heads-up e-mail message to two of his superiors, including Patrick Rhode, Michael Brown's top deputy. "Report that levee in Arabi has failed next to the Industrial Canal," the e-mail message said.

A short time later, at 9:00 A.M., Louis Dabdoub, who worked directly for Homeland Security as a protective security agent in New Orleans, passed an e-mail message directly to the HSOC, warning that there was already ten feet of water in the Lower Ninth Ward—a clear signal that this particular levee was not likely to have been simply topped by "overspill," as Broderick called it. "It is getting bad," Dabdoub wrote. "Major flooding in some parts of the city. People are calling in for rescue saying they are trapped in attics, etc. That means water is 10 feet high there already. Trees are blowing down. Flooding is worsening every minute."

To the locals—and indeed to just about everyone outside of a small circle of officials at Homeland Security and the White House—

the difference between a breach and an overtop was inconsequential; the city was flooded deep and wide, and people attempting to get away from the creeping water ran the risk of death. This sentiment was probably best summed up by the National Weather Service, which advised all citizens in New Orleans's water-filled neighborhoods "to take the necessary tools for survival." The Weather Service elaborated: "Those going into attics should try to take an axe or hatchet with them so they can cut their way onto the roof to avoid drowning should rising flood waters continue to rise into the attic." In the minds of many, the cause of the water—breach or overtop—didn't matter.

Evidence of actual breaches, though, was mounting. At 10:00 A.M., the city's Sewerage & Water Board, which had staff at a pumping station within sight of the Industrial Canal, reported that the structure had a gaping hole in it. Less than an hour later, FEMA's Michael Heath sent out an e-mail message saying that the New Orleans Fire Department was reporting that "a 20-foot wide breach" had opened at the 17th Street Canal. That particular report was widely disseminated among state and federal officials. It was received by Louisiana's office of emergency preparedness, which shared it with top state officials and with FEMA, including Michael Brown. Brown had received similar news about two hours earlier that the Industrial Canal was breached and draining into the Lower Ninth Ward, a report he passed on by e-mail, without comment, to nine other FEMA officials.

Governor Blanco's chief counsel, Terry Ryder, was among those informed about the 17th Street Canal, just a few minutes before the governor was due to participate in the daily videoconference with regional and federal officials, at 11:00 A.M. Central time. He and other state officials were gathered in the overwatch room of the operations center in Baton Rouge when Colonel Henry Whitehorn, superintendent of the Louisiana State Police, delivered the news. Whitehorn said the breach, which immediately went out in the state police's situation report for 11:00 A.M., "was important information."

Ryder immediately grasped the significance. "To me a breach in the wall of that levee would be catastrophic—recognized to be catastrophic," Ryder said. "That would be—the water would be pouring into New Orleans for hours. I would recognize that as being very, very bad news and everybody else would recognize that."

But almost as soon as Whitehorn mentioned it, someone in the crowded room—he wasn't sure who, exactly—said that the Army Corps of Engineers had already discounted the report. "They said it was an overtop," Whitehorn later recalled. Nonetheless, he rushed off to inform Governor Blanco.

Levee breaches were not the focus of the videoconference; indeed, they were barely mentioned. Louisiana officials didn't even bring up the subject, and neither did most of the federal officials on the call. Max Mayfield of the National Hurricane Center made a reference to the possibility of breaches in the city midway through a protracted weather forecast that led off the discussion, but only to mildly shoot the idea down. Mayfield said that judging from the relatively minor storm surge that had hit the city, the "federal levees" protecting New Orleans were unlikely to have been breached. His Weather Service colleagues spent a great deal of time discussing the amount of rain Katrina might drop as the storm headed up through the Ohio Valley.

Terry Ryder wasn't in the briefing, but other top state officials who knew the same information were there. Michael Brown was on the call, as was Superintendent Whitehorn and Jeff Smith, the head of Louisiana's emergency operations center, both of whom had heard the report. Michael Chertoff was on the call, as was Joe Hagin, President Bush's deputy chief of staff. Hagin, a former firefighter upon whom the White House was relying heavily to track the disaster response, had called in from Air Force One—he was accompanying President Bush on a long-planned trip to Arizona to discuss Medicare.

Chertoff asked no questions at the videoconference. Instead, he doled out some mild praise. "I just want to compliment you all on the hard work you have done," he told the assembled. "Obviously, this is the long haul."

Brown told participants that he had spoken to President Bush earlier, once in Crawford and then later when Bush was airborne.

"He's obviously watching television a lot," Brown said, "and he had some questions about the Dome," which had suffered some roof damage in the storm. "He's asking questions about reports of breaches. He's asking about hospitals. He's very engaged and he's asking a lot of really good questions I would expect him to ask."

Brown alone among the federal officials seemed to have a grasp of the scale of the disaster that had visited the Gulf Coast, whether the levees had breached or not. "I get frustrated when the media talks about [how] it's gone from a Category 5 to 4 to 3," Brown said. "What they don't realize is there is a lot of rain, a lot of storm surge, a lot of potential victims out there." He urged his staff to resist the tendency to think they had dodged a bullet. "There's still a lot of work to do, so keep it up and do a good job," he said.

Across the table, Louisiana's Jeff Smith said FEMA's response had been "outstanding" so far. He told the federal officials not to wait for him to request help before pushing resources Louisiana's way. "Push it, we are ready to receive it," Smith said. "We know we are going to need it."

About halfway through the call, Hagin broke in from Air Force One and briskly asked two questions, both of Governor Blanco: "Yeah, what's the current status of the levee system and the roof of the Superdome?" Blanco answered the second question first: "The Superdome structure is still sound, as far as we know." Then she hesitated. "What was your other question?" she asked. She paused again, then caught herself. "The levees."

Blanco said the state had received numerous reports of overtopping and one report of breaching, which she immediately discounted. "We heard a report unconfirmed," she said. "I think we have not breached the levee. We have not breached the levee at this point in time." She went on to say that many New Orleans neighborhoods were submerged. Some city neighborhoods, along with St. Bernard Parish, were sitting in eight to ten feet of water, "and we have people swimming in there."

And that was it. The conversation moved on to Mississippi. The city's levees weren't mentioned again.

At the videoconference, Smith had made no attempt to correct Blanco, though he knew about the eyewitness report regarding the 17th Street Canal breach and the extremely unusual depth of the floodwater in the Lower Ninth Ward, which would be hard to mark off to anything other than a catastrophic collapse of the levee there. Smith later said that Blanco didn't seem to have misspoken, or even to have spoken rashly. "It seemed to me that she conveyed the important information, which was that there was so much water in the neighborhoods that people were swimming in it," Smith said. "That makes it pretty clear what's going on."

A few minutes later in the videoconference, Hagin again broke in. Air Force One was now on the ground in Arizona. "I'm sorry," Hagin said. "We just landed. We are going to sign off your being able to get ahold of us." As far as he (and the president) knew, the situation in New Orleans was well in hand, and there was no need to ratchet up the federal response. The levees had apparently held, and whatever flooding was taking place could be addressed by ordinary means. Governor Blanco's assurance that "we have not breached the levee" meant that the situation was not "catastrophic." President Bush could continue with his trip to Arizona, as planned. A few hours later, he would share cake with Senator John McCain, who was having a birthday. Later in the day, the president would tell a crowd that he had spoken to Secretary Chertoff that morning, but about immigration, not Hurricane Katrina. In most respects, Monday seemed like an average August day for the White House, and Katrina seemed like an average hurricane.

Chertoff would later remark to Congress how significant this particular videoconference had been. "I, and the other participants heard directly from Max Mayfield and Governor Blanco of Louisiana, as the transcript indicates, the levees had *not* been breached," Chertoff said. He added that nobody on the call had asserted that "the flooding was extraordinary or out of the norm for a significant hurricane with substantial rainfall; or whether the more than thirty pumps in the city of New Orleans would be able to channel the excess water appropriately."

Brown and Broderick would later say that the Army Corps of Engineers was declarative on Monday that the city's levees had not collapsed. Broderick, too, would later say he received most of his information about the city's floodwalls and levees from the Army Corps in Washington. As he would later tell Senate investigators, "The Corps of Engineers kept backing us up and saying, 'No, it is not breaches. These are overtopping.' "

But the corps had no idea what was a breach or an overtop; it had no helicopters in the air, no satellite photographs, nothing it could employ to say definitively what was going on in New Orleans with the flood control system it had built. Indeed, it wasn't until midafternoon that the corps even had a representative on the ground in the city.

Actually, before midafternoon, the corps had exactly nine people in New Orleans, but they were in a sealed bunker miles away from the affected levees, waiting out the storm. The corps had evacuated its massive New Orleans District headquarters; left in town to "show the flag" were the newly arrived district commander, Colonel Richard Wagenaar, and eight aides. The small group had no specialized communications and no transportation beyond a standard SUV. The engineers, who represented the corps' entire ground contingent in New Orleans, knew nothing about the levee breaches, at least nothing firsthand.

Throughout the night, Wagenaar had been bombarded with phone calls from residents and city officials, many of whom reported problems with the city's flood control system. Some also begged for rescue, which the corps was unprepared to provide. "We had hundreds of reports of failures and breaches," Wagenaar said.

But much of what the callers reported was Greek to the colonel, who had only been in town for a month and had little independent knowledge of the city's labyrinthine flood control system. He didn't know the system's peculiarities, and he didn't know its weaknesses. He didn't know how vulnerable the city's three drainage outfall canals were to an approaching storm surge. "I didn't even know where the 17th Street Canal was," Wagenaar said.

When he awoke on Monday morning, the local radio station was reporting that a "levee" in the lakefront area of the city had failed. Also that morning, a corps employee called to say that water was pouring over the top of the levee that bounded the city's Industrial Canal, on the edge of the Lower Ninth Ward neighborhood. When afternoon came, Wagenaar took a pair of his aides, piled into the SUV, and headed out toward Lake Pontchartrain, where numerous people had reported that a levee was breached.

But the roads were all but impassable, choked with storm debris and power lines, and many of them were flowing with water. The corps officials soon realized they'd never make it to the city's lakefront. As the truck picked its way across the city, Wagenaar pondered the calls that had come in. Almost all of the people reporting trouble out near Lake Pontchartrain had referred to broken levees, probably not realizing that "floodwall" was the technical term for the barriers along the city's canals. Crossing town took two hours, and as the SUV crept along, Wagenaar gazed out the window, where he saw "hundreds of people on the street" trudging through the floodwaters in search of help and supplies. He thought Katrina had somehow managed to gash the massive earthen levees that ring the south shore of Lake Pontchartrain. It would be several hours before Wagenaar would come to understand what the callers were saying. By that time, the 17th Street Canal breach would be massive and would prove stubbornly resistant to repair.

When Wagenaar's SUV reached the canal, about two miles from the breach, it had reached the end of the line. The water ahead was deep, up to the telephone wires in some spots. "All I could see were the treetops," Wagenaar said. There were no boats and no helicopters, just a few cops and civilians milling around on top of an interstate overpass. "We just stared at the water," Wagenaar said. "And the whole time, I'm thinking, 'This is a levee failure' when in fact it was a floodwall failure," Wagenaar said. "What I did know is that there was a significant problem." And he knew this problem wasn't attributable to rainfall.

Wagenaar got back to the district headquarters in the late afternoon. Based on his observations and other information, his staff filed a situation report under his name a few hours later that was available to Army Corps commanders nationwide, including the headquarters in Washington. If officials were seeking confirmation about levee breaches, the news was buried and cloaked in jargon. On page five of the six-page report on conditions in New Orleans, just after recounting the "positive media" the corps had been receiving ("Fox News reported 'Corps of Engineers did a miraculous [job] with the levees' "), the report devoted five brief sentences to the matter of levee failures. "At this point, the Corps of Engineers has no confirmed reports of levee breaching or levee failure of any kind during Hurricane Katrina," the report said. "We are investigating for the possibility of any breaching, and we are also investigating whether levees have been overtopped at any point."

But the report was unnecessarily pedantic. A few sentences later, it got around to reporting what many already knew and others were struggling to confirm: "We have confirmed a floodwall failure on the Industrial Canal." It added that the failure was on the Lower Ninth Ward side of the Industrial Canal, which would mean that water was gushing into the neighborhood. And the breach was huge: "It is about one block long," the report said.

Then the report turned to the matter of ensuring all district employees would receive their paychecks and engaged in a short discussion of Mississippi River gauges before returning again, briefly, to the subject of the huge slug of lake water that was coursing through the streets of New Orleans. But here again, the startling news was cloaked in understatement and technical talk that would probably escape the notice of the average disaster response official, coming as it did after the declarative statement about no levee breaches. "I-walls: Floodwalls were overtopped on the east side of the 17th Street Canal and the east side of the (Industrial Canal)," it stated. "Sections of wall failed in each area." Here was the confirmation.

With the floodwalls gashed and hemorrhaging billions of gallons of water into the city, it was only a matter of a few hours on Monday before the communications citywide began to fail as the moisture crept into the ground-based junction boxes and electronic switching stations. Even satellite phones became useless as the water shorted out ground-based transponders. Communications was about to become the biggest problem of the catastrophe.

And unbeknownst to Washington and Baton Rouge, the city was on the move. Most of eastern New Orleans, wracked by levee overtoppings, was swimming in up to fourteen feet of water, and people were literally swimming to highway overpasses and tall buildings. In the Lower Ninth Ward, a pair of catastrophic levee breaches sent a wall of water eight feet deep rushing though the city for more than a mile in every direction. In the heart of the city's residential area, Gentilly and the Seventh Ward, the London Avenue Canal, gashed in two places and seriously overtopped in another spot, was letting loose a cascade of water that filled living rooms miles away. And on the city's lakefront, a twenty-foot-long breach grew like a summer weed.

In fact, the twenty-foot levee breach at the 17th Street Canal was expanding all morning and into the afternoon on Monday. Eyewitness testimony gathered months later by the Corps of Engineers suggested that the twenty-foot breach reported at around 11 A.M. to FEMA personnel and the governor's staff was probably a hundred feet long or more by the time the information had filtered to Baton Rouge.

Nobody knew this. At 4:40 P.M. New Orleans time, President Bush stood in Rancho Cucamonga, California, delivering a speech on the new Medicare prescription drug benefit to a group of elderly citizens. He departed from the script briefly to address the spiraling catastrophe unfolding along the Gulf Coast. "We're in constant contact with the local officials down there," Bush said. "The storm is moving through, and we're now able to assess damage, or beginning to assess damage. . . . For those of you who are concerned about whether or not we're prepared to help, don't be. We are. We're in place. We've got equipment in place, supplies in place. And once the—once we're able to assess the damage, we'll be able to move in and help those good folks in the affected areas."

Marty Bahamonde stood at the door of an open Coast Guard helicopter as a blast of hot rotor wash spilled over to him. He yelled to the pilot that he was from FEMA and needed to go up. It was a hard sell. The last thing the Coast Guard pilot wanted was to take some FEMA public affairs official on a sightseeing tour over storm-ravaged New Orleans. It was 5:15 P.M., and Hurricane Katrina's winds had abated just enough to make flying possible. Hundreds of people were already hanging on to crumbling rooftops and balconies trying to escape rising waters and storm damage. Only three Coast Guard rescue helicopters had managed to get into the air, and each was already overwhelmed by dozens of calls for help. This was no time to give a joyride to a FEMA man.

The Coast Guard's own commander on the ground had vowed the only way Bahamonde would see the inside of a chopper that day was if he needed rescuing himself. But Bahamonde was persistent. He pressed. And he told a little white lie. "I started dropping the president's name," he recalled.

"The president expects me to let him know what's going on here," he bellowed to the pilot.

It wasn't a complete fabrication. Bahamonde, a trusted official with twelve years of disaster experience under his belt, had been told by Brown's special assistant Michael Heath a few days before that he was to chase the storm, go "wherever the hurricane was going to hit" and find a good spot to hold a press conference for when Brown made a visit to the disaster zone. Heath also told Bahamonde to keep an eye out for "any and all" information that Brown might want to share with the White House. Bahamonde had been doing this all day Monday, sending along tips about whatever he saw. Sometimes Brown responded to the e-mail messages, and sometimes he didn't. Earlier in the day, Bahamonde had just happened to be passing by the radio room in the city's emergency operations center when a panicked voice came over the airwaves, reporting a breach in the 17th Street Canal floodwall near Lakeshore Boulevard and 17th Street. "It's very bad," the voice said before cutting out completely.

Bahamonde tried repeatedly to get a call through to his bosses in Baton Rouge to tell them the news. He finally gave up and sent an e-mail message, in which he called the floodwall a levee. But Brown seemed to already know the news. "I'm being told here water over not a breach," was Brown's cryptic reply. Brown later said this information came from Louisiana officials.

Though Brown would later tell a congressional committee that Bahamonde was given to hyperbole, the FEMA man's BlackBerry e-mail missives do not come across that way. Indeed, there was nothing shrill about the reports at all: Bahamonde simply stated what he saw and carefully sourced the rest. "Windows and parts of the east side of the Hyatt hotel have been blown out," he said in one dispatch. "Furniture is blowing out of the hotel."

Also, earlier in the day, Bahamonde had managed to get through to Heath to relate the news that the situation at the Superdome was quickly becoming dire. The building was beginning to fill with people. And the sixteen trucks of food and fifteen trucks of water that FEMA promised for the arena had turned out to be two trucks of food and five trucks of water, Bahamonde said. Moreover, the FEMA medical team due to arrive at the Superdome before the storm had in fact never shown at all. As it turned out, Brown had indeed passed this information on to the HSOC and the White House. Bahamonde didn't know that.

Bahamonde was determined to make himself useful. "I need to be on this chopper," he shouted at the pilot. The pilot blinked. "You got ten minutes," he yelled back. "Take it or leave it."

Bahamonde jumped aboard. "Where to?" the pilot asked. Bahamonde didn't hesitate. "The 17th Street Canal levee," he said.

The New Orleans Downtown Heliport is located on top of a parking garage adjacent to the Superdome. As the helicopter lifted off, Bahamonde could see that the white skin of the massive arena's roof had been pulled back like an orange peel, revealing a grubby brown core. It was an amazing and depressing sight. But it was nothing compared to what lay out by Lake Pontchartrain and points east.

If Bahamonde wanted a strict confirmation of catastrophe, he got it: Even on the ten-minute flight, he saw enough to definitively call Katrina a massive, overwhelming disaster. The 17th Street Canal floodwall was in tatters, its concrete caps bent askew like tombstones in a country graveyard. Water was pouring into the city like Niagara. The breach was now a quarter mile wide. All through the neighborhood, Bahamonde could see people huddled forlornly on the roofs of their single-story homes while floodwater lapped at the eaves. As the pilot quickly circled the breach and headed back toward the Superdome, Bahamonde furiously snapped photographs with his palm-sized digital camera. "I knew I was looking at the worst-case scenario that everyone had feared," he said.

The hour was growing late. The city had been filling with water for ten hours, maybe more. The pilot dropped Bahamonde at the heliport and immediately jacked up into the sky. But within a half hour another helicopter had landed. This one was for Bahamonde. He quickly clambered aboard.

On the second flight, the pilot headed east, and Bahamonde got an eyeful of a city in distress. Whole swaths of New Orleans were submerged, and the water was creeping relentlessly toward downtown. At this point, Bahamonde estimated that 75 percent of the city was underwater. The scene from the helicopter was awesome, even for Bahamonde, a veteran disaster worker. Everywhere he looked, he could see survivors clinging to trees and rooftops. The pilot took Bahamonde for a good long ride. He saw the Interstate 10 bridge across Lake Pontchartrain, gap-toothed and totally impassable. He saw eastern New Orleans as it had never been seen: a lake to the horizon, broken only by roof peaks and highway ramps.

By the time Bahamonde returned to the Superdome, it was nearly 7:00 P.M. and approaching sunset. As he hopped off the helicopter, Bahamonde fumbled with his cell phone to call Brown in Baton Rouge. He got through on the first try. Speaking slowly and carefully, Bahamonde related what he had seen.

Brown said little during the briefing. When Bahamonde finished, Brown thanked his advance man. "I'm calling the White House now," Brown said.

Bahamonde then called Heath, who said nothing upon hearing his news. And then he called the FEMA public affairs office in Washington, demanding that they arrange a conference call with all FEMA top officials at 9:00 P.M. so he could make as many people as possible aware of the situation that faced the city of New Orleans.

It was now almost 8:00 P.M., and Bahamonde left to find Mayor Nagin. As he walked the two blocks to City Hall, his phone rang. It was Cindy Taylor, the deputy director of FEMA public affairs. "Marty, I believe you," she said, "but are you really sure what you saw? Are you sure? Because I'm getting some pushback on this conference call; people here are saying they don't need to talk to you. So I just want to know how far to push it. Are you sure?"

Bahamonde was livid. He knew what he'd seen. He took a breath. "Cindy, I am as sure of what I saw as I am that sure my name is Marty," he said in a measured voice.

Taylor promised to do what she could.

Bahamonde then tracked down the mayor at the emergency operations center. He had found a willing audience. Nagin called in his aides and everyone sat down at a conference table. The mayor listened raptly as Bahamonde delivered a thirty-minute description of what he had seen. "Nagin was stunned," Bahamonde said. "He had this vacant expression as he listened to me that said everything."

Though Nagin was convinced, Brown may not have been, or at least not completely. As he settled in that evening in Baton Rouge for a round of televised interviews, Brown alternately described the levees as both topped and breached. On CNN, Brown hedged. "We have some, I'm not going to call them breaches, but we have some areas where the lake and the rivers are continuing to spill over," he said. Nonetheless, he called Katrina a catastrophe, and said that tens of thousands of people might need rescue. On Fox News that evening, Brown managed bravado even as he acknowledged the defining event that would have elevated the disaster to a top national priority. "Now we averted the catastrophic disaster here, but a lot of the things that we anticipated, that we practiced for are coming true," he said. "We now have breaches. We now have water moving into New Orleans."

A few minutes later in New Orleans, Bahamonde broke off the meeting with Nagin to make his conference call. On the call were

FEMA's deputy director Patrick Rhode and a few agency men who were in Baton Rouge. Bahamonde told them that the heart of the city and many of its suburbs were cut off and inaccessible to trucks. He said the interstate routes east and west sank into floodwaters at the outskirts of town. He said he expected the situation to worsen as the city filled up with water from the breaches, which were real.

Bahamonde lingered on the human toll, describing the hundreds of people on rooftops and bodies floating in the city's streets. He said the situation at the Superdome was dire and that food and water were in short supply. Bahamonde didn't hype what he saw—there was no real need. "I believed that I was confirming the worst-case scenario that everyone had always talked about," he later said.

And yet Bahamonde got the sense that the FEMA men weren't listening. Scott Wells, FEMA's Louisiana deputy in Baton Rouge, thanked Bahamonde for confirming "most of what we know already." Wells told Bahamonde to get ready to leave the city; FEMA was already working on sending someone in to relieve him.

Bahamonde hung up the phone feeling terrible. But there was no time to brood. Nagin and his staff were clamoring for his attention, asking if he could tell them again what he had seen, this time using a map. For two hours, Bahamonde would describe what he saw to the city officials. When it was over, he was exhausted. Bahamonde crawled under a desk on City Hall's ninth floor. He used a spare shirt as a pillow. He fell into a restless sleep.

Bahamonde's report didn't die. It was typed up and flashed around FEMA, and it made its way relatively quickly to the Department of Homeland Security. At 9:27 P.M. Eastern time, following Bahamonde's conversations with Brown and Heath at FEMA, John Wood, Michael Chertoff 's chief of staff, and five other Homeland Security officials received an e-mail message from Brian Besanceney, the department's assistant secretary for public affairs, saying that a FEMA employee in New Orleans witnessed destruction there that was "far more serious" than what reporters and others were saying. "FYI in case tomorrow's [reports] seem more 'severe,'" the e-mail message said. The information made it to the White House about two and a half hours later, shortly after midnight.

Bahamonde's report made its way to the Homeland Security Operations Center at about the same time. And there, it was added to the breach confirmation reports from the press and the city and the state and the Red Cross and the Coast Guard and the National Weather Service and the Transportation Security Administration and the Army Corps of Engineers and other agencies within the Department of Homeland Security. Bahamonde's report was just another tile in the mosaic at the HSOC, assigned no more and no less importance than any other piece of information on the same subject. Matthew Broderick wouldn't see Bahamonde's report until months later (he had left the office at 9:00 P.M. on Monday). But when he did, he still discounted its value.

"You know, you can see why we go in and try to get clarification," Broderick later said when questioned about Bahamonde's report. "It says . . . 'Downtown, there is less flooding.' Yet, he says, '75 percent of the city is underwater.' You know, that's hyping something that you would go back and check. A quarter-mile breach in a levee: again, is it a breach or is it overspilling?"

By 5:00 P.M. Washington time on Monday, Broderick's shop had received no fewer than nine reports that the city's flood control system had been breached. Moreover, the HSOC had received at least eight other reports that huge swaths of the city were underwater and that hundreds, perhaps thousands, of people were awaiting rescue in the sultry summer heat.

But Broderick's final report of the evening, sent out at 6:13 P.M. Washington time, shot down the idea that the city's levees had been breached. "Preliminary reports indicate the levees have not been breached," the report declared.

At the end of the day, it was clear in some respects who considered the question of breach versus overtop to be important. Broderick certainly did. Hagin, at the White House, homed in on the question at the Monday videoconference, so he may have realized the significance. Bahamonde seemed to recognize instinctively that the information

Washington needed was sitting at the 17th Street Canal. Chertoff certainly understood the importance of the question—he said so on many occasions afterward.

But the people who didn't know how crucial the question was were the very people who were best situated to answer it. They were the local officials. In New Orleans, Mayor Nagin and his emergency manager, Terry Ebbert, spoke of the breaches in their public statements but didn't emphasize them and indeed seemed to speed over the question in their press conferences. And it seems clear that Governor Blanco, who had carefully calibrated practically every move she made during the early days of the crisis, wouldn't have been so dismissive during the videoconference of the reports of levee breaches had she known that the federal response was hanging on it.

When Broderick was asked months later by Senate staffers why he had stated so declaratively late Monday that the city's flood control structures were intact, the former Marine general said, improbably, that he had never received a single report during the day that suggested otherwise. The Senate investigator asking the question, Jeffrey Greene, was so stunned at the response that he initially asked if Broderick had misheard him.

But Broderick hadn't misheard. "If I had heard there was a breach in a levee Monday evening, I would have—had I been aware of it, I would have been all over it," he said.

Instead, Broderick said, all he had heard out of the city on Monday was the sound of a "normal hurricane situation. The Corps of Engineers had to go in and do a debris clean-up. We have to get power restoration," Broderick said. "We may have to go in and help with search and rescue for a certain amount of people but it's the regular hurricane drill."

Broderick would also tell investigators that he rarely looked at his e-mail and had received seven hundred e-mail messages during the disaster that he had never even bothered to open. He admitted that he didn't read the New Orleans newspaper, the *Times-Picayune*, which on the day Katrina hit had treated the collapse of the 17th Street Canal as fact and had written a long story describing the scene after two reporters on bicycles had visited the area. Broderick would later say he hadn't seen Michael Brown on CNN on Monday night referring to Katrina as a catastrophe and saying that as many as 10,000 people might be trapped in the floodwaters. Finally, asked by exasperated Senate investigators what evidence he had collected showing the levees had *not* breached, Broderick said he had relied exclusively on two sources. The first was the Army Corps of Engineers, but the former general suspected even that agency of hyping the situation, since it had reported "extensive" flooding in New Orleans and " 'extensive' is all relative," Broderick said.

The second source, Broderick allowed, was unimpeachable: CNN Headline News. Late Monday afternoon, the network aired a report from New Orleans. The focus of the video snippet was a scene on Bourbon Street, near the highest spot in the city, where people "seemed to be having a party," Broderick said.

"The one data point that I really had, personally, visually, was the celebration in the streets of New Orleans, of people drinking beer and partying because—and they used, they came up with the word—'we dodged the bullet,' " Broderick said. "So that's a pretty good indicator right there."