

HURRICANE PAM

The Hurricane Pam exercise reflected recognition by all levels of government of the dangers of a catastrophic hurricane striking New Orleans

One of the key planning and preparedness steps many of the local, state, and federal officials involved in the response to Katrina in Louisiana took part in was the July 2004 exercise commonly known as “Hurricane Pam.” FEMA funded and participated in this disaster simulation exercise in which a fictional, strong category three — with qualities of a category four — hurricane named Pam hit the New Orleans area. Emergency officials from 50 parish, state, federal, and volunteer organizations faced this scenario during the five-day exercise held at the Louisiana State Emergency Operations Center in Baton Rouge.¹

The purpose of the exercise was to help officials develop joint response plans for a catastrophic hurricane in Louisiana. While many found the Pam exercise to be useful in executing a better response to Katrina, the exercise also highlighted lessons learned that were not implemented and did not anticipate certain weaknesses that Katrina exposed.

The Hurricane Pam scenario focused on 13 parishes in southeast Louisiana — Ascension, Assumption, Jefferson, Lafourche, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John, St. Tammany, Tangipahoa, and Terrebonne. Representatives from outside the primary parishes, including officials from Mississippi’s Emergency Management Agency (EMA), participated because hurricane evacuation and sheltering involve communities throughout Louisiana and into Arkansas, Mississippi, and Texas.²

The Hurricane Pam exercise scenario was prescient. The virtual storm brought sustained winds of 120 mph, up to 20 inches of rain in parts of Southeast Louisiana, and storm surges that topped the levees and flooded the New Orleans area. The exercise assumed that:³

- 300,000 people would not evacuate in advance;
- 500,000 to 600,000 buildings would be destroyed;

- Phone and sewer services would be knocked out and chemical plants would be flooded;
- 97 percent of all communications would be down;
- About 175,000 people would be injured, 200,000 would become sick, and more than 60,000 would be killed;
- About 1,000 shelters would be needed for evacuees;
- Boats and helicopters would be needed for thousands of rescues because many residents would be stranded by floodwaters;
- A catastrophic flood would leave swaths of southeast Louisiana uninhabitable for more than a year.

The Pam simulation was designed and run by a private contractor, Baton Rouge-based Innovative Emergency Management Inc. (IEM). FEMA issued the Request for Proposal in 2004 asking for speedy execution of the catastrophic planning project. IEM was awarded the contract for more than a half million dollars in May 2004 and was told by FEMA it had 53 days to mount the exercise. As it can take up to eight months to write an emergency plan, 6 to 12 months to train on the plan, and about one year to issue the report, Pam was clearly a different type of plan in scope, execution, and timing. According to IEM President Madhu Beriwal, Hurricane Pam was a “planning exercise” designed to develop usable information in a much shorter timeframe.⁴ FEMA and Louisiana officials accelerated the planning process because of the overwhelming consensus that a category five hurricane hitting New Orleans was one of the most likely and devastating disaster scenarios our nation faced, Beriwal explained.

This effort was part of FEMA’s larger initiative for conducting catastrophic disaster planning, in which it chose 25 disaster scenarios based on priority of risk. A hurricane hitting New Orleans was picked as the first scenario to be studied. According to Beriwal, “We were still fairly early in the process” of developing a formal response plan for New Orleans when Katrina made landfall.⁵

In July of 2004, IEM held its first workshop. The initial eight day workshop had over 300 participants from federal, regional, and local agencies. The first three days were dedicated to establishing the specifics of the disaster

scenario and pre-landfall planning, the remaining five days to post-landfall logistics.

Officials were presented with a hurricane scenario designed by Louisiana State University (LSU) researchers. Ivor Van Heerden, an LSU professor who used computer modeling to help create a realistic hurricane, said, "It was a slow moving category three storm, something that could quite easily happen, and designed so that it totally flooded the city, so that the participants could try to understand the full impacts of a flooded New Orleans."⁶ Indeed, experts involved in the Hurricane Pam exercise were struck by the similarity of the simulation to the actual destructive conditions wrought by Katrina. According to Beriwal, Pam's slow-moving category three "made it virtually equal in force and devastation to Katrina's category four based on its surge and wind capacity."⁷ And, of course, Katrina itself was later recategorized as a strong category 3.⁸

During the Pam simulation, participants broke into groups and devised responses as the disaster scenario unfolded. The workshop focused on issues ranging from search and rescue and temporary sheltering to unwatering, debris removal, and medical care. Not all issues, however, were covered in the workshop. Beriwal said while issues related to security and communications were on the agenda, the development of a plan to coordinate the displacement of school children took precedence.⁹ Beriwal also said the issue of pre-landfall evacuation was not addressed, although Exercise Pam did make the basic presumption that the state and locals were responsible for pre-landfall evacuations. Apparently FEMA directed IEM to emphasize post-landfall and recovery issues in the Pam exercise as pre-landfall evacuation had always been a focal point in prior emergency disaster planning sessions.¹⁰

The Southeast Louisiana Catastrophic Hurricane Plan was the product of these series of workshops. The Plan was "designed to be the first step toward producing a comprehensive hurricane response plan, jointly approved and implemented by federal, state, and city officials."¹¹ By January 2005, IEM sent a draft planning document to the state and localities based on the planning derived from the July workshop. The delivery of the draft was expedited to give the Southeast Louisiana emergency management planners time to prepare for the 2005 hurricane season. Indeed, IEM scurried to make the plan available at this early date so officials could use it and *translate* it into individual detailed operational plans.¹² Beriwal noted

the plan was not meant to provide operational detail but rather was designed to provide general guidance, a sort of "to do list" for state and localities.¹³ Beriwal further characterized the exercise as a "work in progress." She described IEM's role as "facilitator and assessors of consequences."¹⁴

The plan itself outlines 15 subjects that emergency managers should address during and after a catastrophic storm hitting New Orleans. The report is detailed in certain respects. It includes diagrams for makeshift loading docks to distribute water, ice, and food to storm victims — color-coded to show where pallets, traffic cones, and trash bins would be placed. Yet in other places the report is less specific; it does not identify, for example, what hospitals or airports would be used.

Numerous action plans ranging from debris removal, to sheltering, to search and rescue were developed. For example, state transportation officials took the lessons learned from the Pam exercise and previous hurricanes and revised the state's contraflow plan.¹⁵ The revisions included making adjustments to traffic lights, cessation of construction, and greater coordination with the private sector. State officials reported that Hurricane Pam greatly improved the state's contraflow evacuation plan.¹⁶ In fact, federal, state, and local officials across the board agreed the contra flow plan was a success story of Katrina's emergency response. Over 1.2 million were evacuated in the 48 hours prior to landfall.¹⁷

As part of the Pam exercise, planners also identified lead and support agencies for search and rescue and established a command structure that would include four areas with up to 800 searchers. For example, "[t]he search and rescue group developed a transportation plan for getting stranded residents out of harm's way."¹⁸ "The medical care group reviewed and enhanced existing plans."¹⁹ "The medical action plan included patient movement details and identified probable locations, such as state university campuses, where individuals would receive care and then be transported to hospitals, special needs shelters or regular shelters as necessary."²⁰

Workshops subsequent to the initial five-day Hurricane Pam exercise were held in November 2004 and August 2005. A second Hurricane Pam Exercise was planned for the summer of 2005, but did not take place, apparently due to lack of funding.²¹ Agencies had anticipated expanding on aspects of response and recovery that were not explored in the 2004 exercise.²²

Finding: Implementation of lessons learned from Hurricane Pam was incomplete

While state and local officials turned some lessons from the Hurricane Pam exercise into improvements of their emergency plans, other important changes were not made. State health officials said the exercise had helped them better prepare for evacuation of hospital patients and special needs people.²³ Since Pam was a catastrophic hurricane with flooding of New Orleans, it required them to consider the issue of evacuating New Orleans hospitals and the Superdome's special needs shelter.²⁴ Subsequent to the exercise, medical officials held planning sessions focused on post-landfall care and evacuation. The contingency plan for the medical component was almost complete when Katrina made landfall.²⁵ Officials said although the plan was not yet finalized, it proved invaluable to the response effort.²⁶

Further, in the aftermath of Katrina, varying opinions have surfaced as to the roles and responsibilities established during the Hurricane Pam exercise. Some state and parish officials said they saw Pam as a "contract" of what the various parties were going to do, and the federal government did not do the things it had committed to doing.²⁷ According to Dr. Walter Maestri, the Jefferson Parish Director of Emergency Management, he understood that FEMA may not provide help until 48-72 hours later—but then he expected help.²⁸ That is, once the state cleared the roads, he anticipated that FEMA trucks would arrive with large quantities of water, food, and ice. Although these were the parish's planning assumptions, he said FEMA did not get substantial relief to the parish until 11 days after landfall.²⁹ Dr. Maestri also said the Hurricane Pam documentation makes it clear what FEMA was supposed to do, but FEMA did not do those things.³⁰

Beriwal said, however, the plan derived from the Pam exercise was intended as a "bridging document" designed to serve as a guide and roadmap to be used by emergency operational officials at the state and local level. In other words, it was up to state and local officials to take the Plan and turn it into more detailed individual operational plans.³¹

Yet, according to Scott Wells, Deputy Federal Coordinating Officer from FEMA, there were several

Hurricane Pam Exercise "to do" items state or local governments did not complete.³² For example, the state was supposed to develop more detailed concepts and plans in several areas: (1) search and rescue, (2) rapid assessment teams, (3) medical evacuation, (4) sheltering and temporary housing, (5) commodity distribution, and (6) debris removal.³³ The state's previous Louisiana Office of Homeland Security and Emergency Preparedness Deputy Director had laid these six areas out as priorities for the state to work on.³⁴ In Wells's view, the only one of these where the state made some progress was medical evacuation.³⁵

Wells also said, however, that the need to shelter special needs people in the Superdome showed the state and city had not taken steps (which they had agreed to do after the Pam Exercise) to coordinate the movement and sheltering of these people further north, away from the Gulf.³⁶ As a result of the exercise and subsequent planning workshops, the state was supposed to develop "hasty plans" to address all these areas.³⁷ He said although he had tried to get state officials to focus on these hasty plans just before landfall, they would not do so.³⁸ According to Wells, the state had also agreed to learn and exercise a unified command through the incident command system.³⁹ Wells said the state did not do so, which led to major command and control problems during Katrina.⁴⁰

Conclusion

Hurricane Katrina highlighted many weaknesses that either were not anticipated by the Pam exercise or perhaps were lessons learned but simply not implemented. For example, Hurricane Pam has been criticized for its emphasis on managing the aftermath of the catastrophe and not creating initiatives that would diminish the magnitude of the catastrophe. Indeed, much of the recrimination over the Hurricane Katrina response came because government authorities apparently failed to have a plan in place to assist in evacuating individuals without transportation. Nor did they appear to have an adequate sheltering plan in place. With Hurricane Pam's striking resemblance to Katrina in force and devastation, many have been left wondering at the failure to anticipate, and plan for, these essentials. Is a plan that leaves 300,000 in a flooded city and results in 60,000 deaths acceptable? ■

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- ¹ Press Release, Fed. Emer. Mgmt. Agency (FEMA), *Hurricane Pam Exercise Concludes* (July 23, 2004) available at <http://www.fema.gov/news/newsrelease.fema?id=13051> (last visited Jan. 12, 2006) [hereinafter July 23, 2004 FEMA Press Release].
- ² *Id.*
- ³ Ron Fournier and Ted Bridis, *Katrina What Planners Feared; Hurricane Simulation Predicted 61,290 Dead*, AP, Sept. 10, 2005 [hereinafter Sept. 10, 2005 Fournier Article]; David R. Baker, *Hard Times in Big Easy Efforts Intensify to Evaluate Living, Recover Dead*, SF CHRONICLE, Sept. 9, 2005.
- ⁴ Interview by Select Comm. staff with Madhu Beriwal, IEM, Inc., in Wash., DC (Jan. 6, 2006) [hereinafter Beriwal Interview].
- ⁵ John McQuaid, *'Hurricane Pam' Exercise Offered glimpse of Katrina Misery*, TIMES-PICAYUNE (New Orleans), Sept. 9, 2005.
- ⁶ *Id.*
- ⁷ Beriwal Interview.
- ⁸ Associated Press, *Hurricane Katrina Was Weaker Than First Thought At Landfall*, USA TODAY, Dec. 20, 2005 available at http://www.usatoday.com/weather/hurricane/2005-12-20-katrina-strength_x.htm.
- ⁹ Beriwal Interview.
- ¹⁰ *Id.*
- ¹¹ Sept. 10, 2005 Fournier Article.
- ¹² Beriwal Interview.
- ¹³ *Id.*
- ¹⁴ *Id.*
- ¹⁵ Interview by Select Comm. staff with Gordon Nelson, LA Dep't of Trans., in Baton Rouge, LA (Nov. 4, 2005).
- ¹⁶ *Id.*
- ¹⁷ *Hearing on Hurricane Katrina: Preparedness and Response by the State of Louisiana Before Select Comm.*, 109th Cong. (Dec. 14, 2005) at 77 (statement of Kathleen Babineaux Blanco, Governor of LA).
- ¹⁸ July 23, 2004 FEMA Press Release.
- ¹⁹ *Id.*
- ²⁰ *Id.*
- ²¹ Beriwal Interview.
- ²² Interview by Select Comm. Staff with Jeff Smith, State Coordinating Officer, LA. Office of Homeland Sec. and Emerg. Preparedness, in Baton Rouge, LA (Nov 7, 2005).
- ²³ Interview by Select Comm. Staff with Jimmy Guidry, Med. Dir., LA Dept. Health and Hospitals, in Baton Rouge, LA (Nov. 7, 2005).
- ²⁴ *Id.*
- ²⁵ *Id.*
- ²⁶ *Id.*
- ²⁷ Interview by Select Comm. Staff with Walter Maestri, Dir. of Emer. Mgmt., Jefferson Parish, in New Orleans, LA (Nov. 8, 2005).
- ²⁸ *Id.*
- ²⁹ *Id.*
- ³⁰ *Id.*
- ³¹ Beriwal Interview.
- ³² Interview with Select Comm. Staff, Scott Wells, Dep. Fed. Coordinating Officer, in Baton Rouge, LA (Nov. 9, 2005).
- ³³ *Id.*
- ³⁴ *Id.*
- ³⁵ *Id.*
- ³⁶ *Id.*
- ³⁷ *Id.*
- ³⁸ *Id.*
- ³⁹ *Id.*
- ⁴⁰ *Id.*



AP PHOTO/BILL FEIG, POOL

“What happened to us this year, however, can only be described as a catastrophe of Biblical proportions. We in Louisiana know hurricanes and hurricanes know us. We would not be here today if the levees had not failed.”

Kathleen Babineaux Blanco
Governor, State of Louisiana
Select Committee Hearing, December 14, 2005