

Looking Back: First Responders Reflect on Hurricane Harvey

By Graciela Cortez



Firefighters from HFD Station 49 conduct a rescue operation using a high-water vehicle in the Memorial area. Nathan Lilley stands in the front with Brandon Hernandez peeking out behind him. On the truck standing in front of the evacuees are, from left, Brian Dea, Dustin Davis, and Michael de Leon. Photo courtesy of HFD Station 49.

In times of crisis, we know the numbers to call. First responders work 24/7, rain or shine, to ensure the public's safety. Over time, the first responder network has evolved to serve the community in times of crisis. Although hurricanes and floods have plagued Houston since its founding in 1836, Hurricane Harvey was an unprecedented catastrophe that took some of the most seasoned professionals by surprise.

As Houston Fire Department (HFD) Station 8's firefighter and emergency medical technician (EMT) Thomas Wolcott affirmed, first responders always build on previous experience and aim to "prepare better for the next storm." Hurricane preparations begin long before an expected storm season. Dr. David Persse, physician director of HFD Emergency Medical Services (EMS) and the public health authority for the City of Houston, stated, "The biggest preventive measure we've done is the training that occurs during ... the off-season." Formal preparations include mock

drills, training, revision of emergency procedures, and determining evacuation routes. Additional measures involve ensuring that back-up generators are working, equipment is in the right place, and trucks are filled with gas.¹ The duration of emergency situations can never be predicted, so first responders must also arrange for the safety of their families while they are away on duty.

By the time Hurricane Harvey hit Houston, firefighters, EMTs, paramedics, police officers, and medical staff had done their best to prepare for its arrival. Yet, despite all the planning, Harvey's unprecedented rainfall did not allow for full preparation. HFD District 5's chief, Robert Branch, believes that "nothing could have prepared us for Harvey. ... The best-laid plans in any municipal emergency operation center couldn't have prepared [us] for that." Reports support that assessment: Southeast Texas received over fifty inches of rain, while some parts of Harris County received over forty inches during Harvey's five-day rainfall period. This storm exceeded the anticipated 500-year, four-day rainfall event by over nine inches.²

Arriving to their assigned stations and dispatch centers was the first hurdle for many responders. In some cases, like that of Captain Nathan Lilley, arriving at the station required maneuvering and improvisation; but for others, such as District Chief Edward Llewellyn, it was impossible. Capt. Lilley used a roundabout route to make it through flooded



Even during flooding events houses catch on fire and demand attention from first responders. Photo courtesy of HFD Station 49.

roadways to his team, but Chief Llewellyn was forced to turn around and regroup with a station closer to home. Both men were grateful to have found a way to report to work, though the heavy lifting was yet to come.³

Once in place, all first responders were in rescue mode. Command and staging areas coordinated with all assets to respond to the endless calls for help. Floods and hurricanes are dynamic phenomena, and our response networks have to roll with the punches. Capt. Lilley explained that during emergencies, responders do not know what to expect until they get there, and they must be flexible and resourceful when confronted with difficult situations.⁴

HFD paramedic James Sheffield, who is part of the Emergency Medical Task Force of Texas, knows a thing or two about improvisation and thinking outside the box. He managed a staging area at Tully Stadium on the outskirts of Houston. The original plan was to have 100 to 150 ambulances located in the field, ready to go, awaiting instructions. However, after a couple of hours, the number of vehicles more than doubled. Aside from the fact that the sudden increase of personnel strained resources like food and water, the rain threatened to flood the staging area, necessitating evacuation of the stadium. Sheffield compared the coordination of their exit to “a fire drill at an elementary school.” Everyone was worked up while waiting for directions. After a failed attempt to regroup in the Leonard E. Merrell Center, Sheffield had to improvise. With no place to settle the large number of staff and vehicles, he pulled into a new Buc-ee’s convenience store that had not yet opened for business and turned it into their new working space. Sheffield hunted down the manager and dispatched a National Guard high-water vehicle to bring him to the store, where the manager gladly welcomed the responders as the store’s first “customers” to aid the rescue efforts.⁵

HFD Station 49 members also employed unconventional measures while performing their duties. Despite the harmful substances in flood water, a firefighter dove underwater to connect a hose to a hydrant so they could battle a house



When resources run low firefighters demonstrate resourcefulness and ingenuity, such as using the motorized propellers on a boat to shoot water at a fire.
Photo courtesy of HFD Station 49.

fire. In another case where resources fell short, they worked with a volunteer group from the Austin Fire Department that used the propellers on their motorboat to shoot water at the flames. “That’s the nature of the fire service,” Chief Branch asserted, “We’re going to make it work no matter what.”⁶

Capt. Lilley echoes that sentiment. During the storm, he conducted a rescue involving a special needs child with autism and his family. Lilley’s team initially tried to evacuate them in the back of a dump truck, but the child refused to get in the truck. Aware of the “high-stress environment,” Lilley got a rescue boat to take the boy to the water’s edge to help ease his anxieties. Having two sons of his own with special needs, Capt. Lilley tried “to go the extra mile to get [that family] to where they need[ed] to be.”⁷ Luckily, the child really liked the boat and the responders were able to take the family to safety. Unexpected complications were not uncommon for responders during Hurricane Harvey, but many of them, quick to think on their feet, rose to the task.

Not every call was out of the ordinary, though. Dr. Persse pointed out that first responders “continue doing [their regular duties] as well as all of the disaster-related responsibilities that [they] acquire” in an event like Harvey. Regular calls do not stop. In addition to tending to flood rescues, responders took care of the “normal, everyday nine hundred to a thousand cardiac arrests, diabetic reactions,” and other conditions, “so everything was compounded.”⁸

Though emergency responders worked to address the challenges Harvey presented, some rescue efforts were unsuccessful. The evacuation efforts were overwhelming and the unpredictable events in the field presented tough problems to solve. Reflecting on how quickly the water level increased in the Memorial City area, Capt. Lilley described what they expected to be a typical EMS distress call from an older gentleman who needed oxygen. Upon arrival, though,



Dozens of ambulances and emergency vehicles gathered at the impromptu staging center at the Katy Buc-ee’s store that had yet to open to the public.
Photo courtesy of James Sheffield.

the EMTs discovered about a dozen elderly and disabled citizens sitting in three feet of water with no way to get out of their unregistered senior living home. The EMTs immediately mobilized to move as many people as possible to safety. However, the water had risen too fast, the facility did not have the necessary nursing capacity, and the residents could not get up to evacuate or get to a phone. Sadly, Lilley recalled, some passed away before anyone knew they were there, let alone that they needed help.⁹

First responders struggled to respond to everyone who needed help. Chief Llewellyn remembered receiving calls for help from all directions: the dispatcher, the station telephone, cellphones, walk-ins, Houston Police Department, and his personal line. Resources and staff were stretched thin. Some relief came when then Harris County judge Ed Emmett made an unprecedented call for civilian assistance. For responders, Chief Branch asserted, the “biggest thing that helped” was the support that immediately followed the judge’s announcement. People showed up at the fire stations with a variety of water vehicles ranging from “military truck[s] with a snorkel” to “inflatable boats [and] ... \$100,000-plus trophy bass boats.” Chief Llewellyn applauded all the civilians who risked their lives to help the community. The widespread influx of resources boosted the number of people first responders could assist, many of whom would have suffered otherwise.¹⁰



First responders from across the nation worked twelve to eighteen hour shifts and rested anywhere they could before reporting back to duty.

Photo courtesy of James Sheffield.

The dangers that come with working during a storm underscore the risks taken by first responders and civilian rescuers. The City of Houston acts preemptively by requesting first responders and other personnel be vaccinated against hepatitis and other diseases. Nevertheless, flesh eating bacteria, floating ant hills, live wires, and drowning hazards are just some of the life-threatening dangers that responders face serving the community.¹¹

To ensure that responders avoid unnecessary exposure to

harmful substances, the public is encouraged to comply with safety guidelines. Dr. Persse urges the community to avoid playing or travelling in flood water as much as possible, explaining, “Floodwater is dirty water. [The public] needs to think of it as raw sewage because that’s what a lot of it is.” Capt. Lilley reminds Houstonians to shut off utilities when requesting help during a flood or hurricane. Failing to turn off the electricity can increase the potential risk of electrocution for residents and rescuers. Station 49 firefighters/EMTs also stressed the importance of following shelter-in-place instructions. Some of the rescues made during Harvey were a result of people thinking they could make it across a flooded street or highway intersection after officials gave stay-at-home directions.¹² While first responders make every effort to protect the public, civilians should also do their part and follow recommendations that minimize risks to themselves and those they call for help.



HFD Station 49 firefighters assisted in the volunteer efforts set up at Memorial City Mall. Restaurants, civilians, and HFD provided food, essential clothing, and supplies to anyone in need.

Photo courtesy of HFD Station 49.

First responders demonstrated creativity and resourcefulness, doing everything they could to rise to the challenge presented by Harvey’s unprecedented rainfall. HFD Station 8’s Erica Czyz stated, “It’s part of the job. We know what we signed up for, and if we need to help [a] person, we’re going to do it.” When it came to finding new ways to help the community, no stone was left unturned; as a result, officials also turned to civilians who, Chief Llewellyn pointed out, “played a tremendous part in the rescue and evacuation” effort.¹³ As with many problems, it took a collaborative effort by the responders — public and private — to tackle the challenge.

Graciela Cortez is a senior at the University of Houston studying philosophy and political science. She is a member of the Honors College Model UN team and volunteers with KIND Houston, helping underserved children receive legal representation. Upon graduation, she plans to work in government while preparing for law school.