

TRIP ITINERARY LOYOLA UNIVERSITY KATRINA DAMAGE TOUR JANUARY 2006 TO THE PRESENT.

**By Robert A. (Bob) Thomas, Ph.D., Director, Center for
Environmental Communications, Loyola University New
Orleans, New Orleans, Louisiana 70118
Voice 504.865.2107 rathomas@loyno.edu
<http://www.loyno.edu/lucec> & <http://www.ecommloyola.org>**

MAJOR POINTS DURING THE TOUR:

1. Katrina's damage cut across the socioeconomic heart of the City of New Orleans – horribly damaging largely white, middle to upper class neighborhoods (where many business owners and managers live); through ethnically and socioeconomically mixed neighborhoods; to largely black, working poor neighborhoods (where the workers and many small business owners live).
2. People who lost everything who have good jobs, savings, and/or adequate insurance can rebuild to their former lifestyles quickly and get on with life. Those who are mired in poverty (whether they are on public assistance or working poor) are facing a totally different future – short and long term.
3. Regardless of socioeconomic status, people who lost everything are equally psychologically stressed, and most will carry the trauma the rest of their lives.
4. The breadth of the damage is astounding – 80% of the city was and is devastated. This tour takes about two hours and is through damaged neighborhoods, with few people returning and almost no businesses open.

WHO WERE THE FIRST RESPONDER TEAMS?

Obviously, any and all who came to help were the “first responders:” police, fire, ambulance services, military, volunteer rescue groups, etc. They came from all walks of life and from many distant places.

Due to the enormity of the disaster, first responders had to triage:

1. They rescued living people
2. Then they rescued living people with their pets
3. Then they recovered bodies.

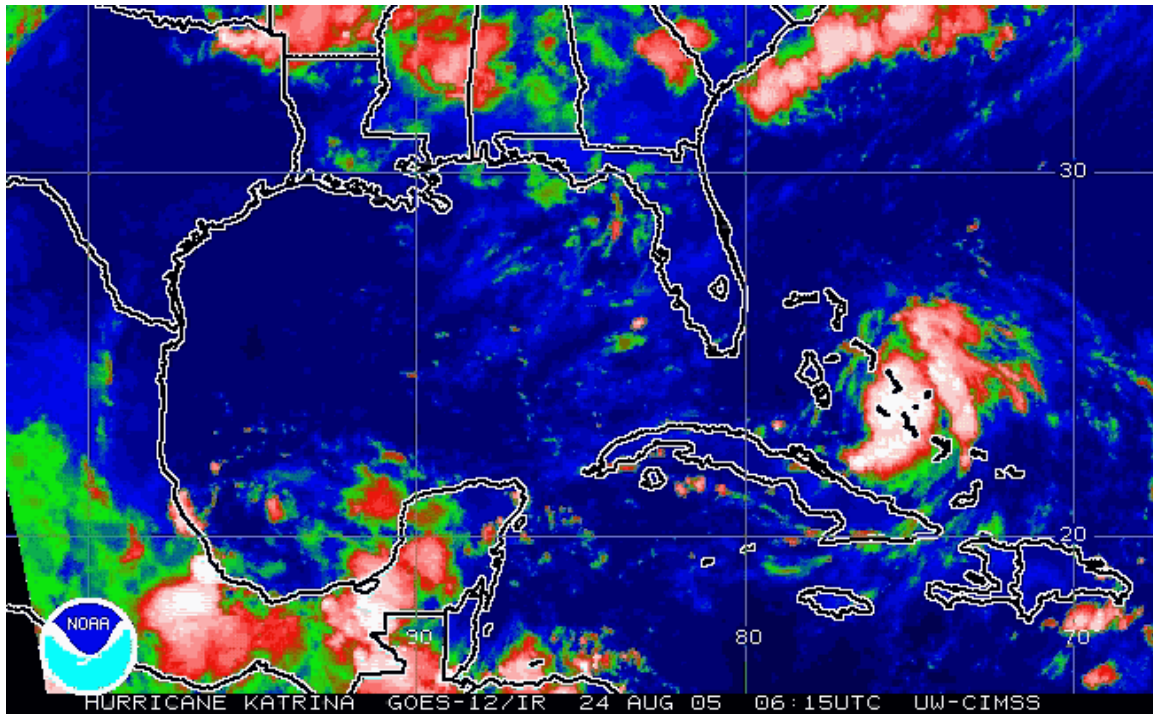
There were two terms used during the events that followed the hurricanes:

- Search & Rescue – this was the first wave, and its job was to find living people and rescue them.

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- Search & Recovery – this was the second wave, and these teams’ job was to find bodies and recover them. Most of these teams were the same as the original Search & Rescue teams.

WHAT WAS THE PATH OF THE STORM?

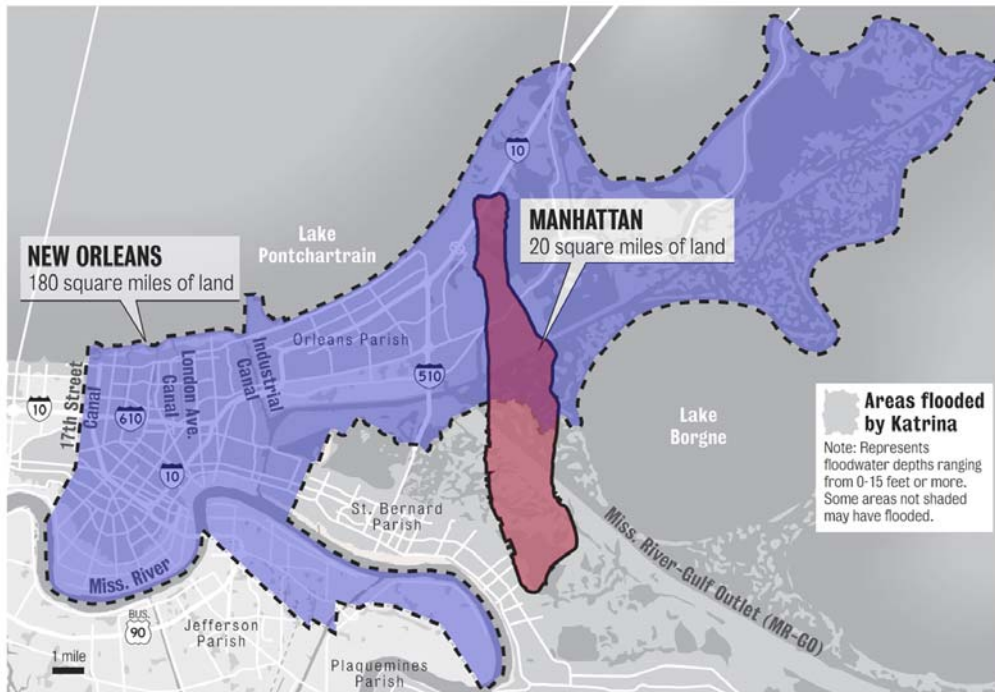


HOW DO I VISUALIZE THE SIZE OF THE DAMAGE IN NEW ORLEANS?

80% of the city was flooded, equivalent in size to . . .

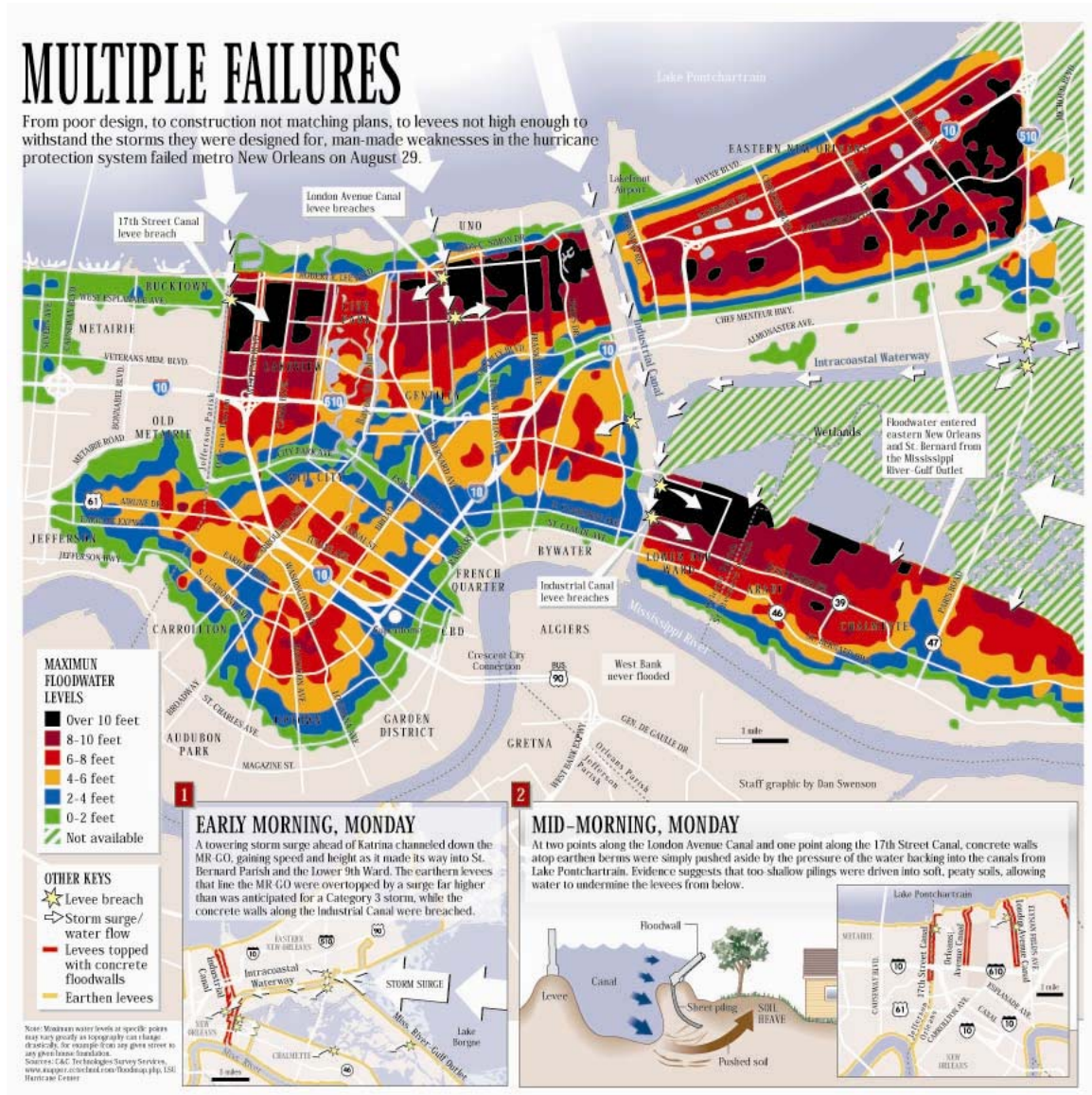
SEVEN MANHATTANS

About 80 percent of New Orleans was flooded by Hurricane Katrina's storm surge, a devastation zone covering about 144 square miles. To understand the scope of the damage, the area is more than seven times larger than Manhattan.



SOURCE: THE TIMES PICAYUNE

WHAT WAS THE FLOODING DISTRIBUTION? Note the depths in the various neighborhoods.



DEWATERING OF NEW ORLEANS

The Corps of Engineers says the flooding resulting from the storms was drained by the following dates:

- Orleans east of the Industrial Canal (floods resulting from breaches in the 17th Street, Orleans, and London Avenue Canals): September 20th
- Lower 9th Ward
 - After Katrina: September 15th
 - After Rita: October 9th (substantially done by September 27th)

GREATER NEW ORLEANS COMMUNITY DATA CENTER (<http://www.gnocdc.org/>)

This web site contains loads of demographic data about Greater New Orleans.

NEW ORLEANS NEIGHBORHOOD NAMES:

There are many names commonly used in New Orleans for various parts of town. Visitors may get very confused because the same name may be used in several areas of town. Also, one person may refer to a certain cross-section as being in “X-Ward” and another may say it is in “X-neighborhood.” Why might that be?

There are three ways we define and describe areas of the city:

- The city is divided into nine wards. For the majority of the population, they think the 9th Ward is the only use of the word. But within wards, locals may know their ward number and use it. (<http://nutrias.org/~nopl/facts/1880map.htm>)
- The city is broken down into planning districts that have commonly heard names (.http://www.gnocdc.org/maps/PDFs/NOLA_planning_districts.pdf)..
- The city has formally designated neighborhood names and they are widely known and used by citizens (<http://www.gnocdc.org/mapping/docs/Neighborhood.pdf>).

People simply mix the use of these names.

NEW ORLEANS ELEVATION MAP

(http://www.gnocdc.org/maps/PDFs/neworleans_elevation.pdf).

WHAT DO WE KNOW ABOUT BLACK/WHITE IMPACTS?

	NOLA POPULATION	PER CENT OF THAT POP WHOSE HOMES WERE FLOODED	PER CENT OF DEAD OVERALL
BLACK	66%	67%	62%
WHITE	26%	51%	35% (ESTIMATE)

ANNOTATED TOUR ITINERARY:



Levee breaks are marked with an “X”.

- Board buses in front of Loyola University on St. Charles Avenue.
- West on St. Charles Avenue to Carrollton Avenue, turn right;
- Down Carrollton Avenue to I-10. Notice the water lines on buildings. There were three wonderful houses across the street from the New Orleans Seminary; they burned during the aftermath of the storm and the firemen could not get there to stop the destruction.
 - On the right, at I-10, is Xavier University, a predominately black Catholic university. During the fall of 2005, Xavier planned to hold classes on the Loyola and Tulane campuses – taught by their own professors. Their alumni interceded and demanded that they open on their campus by January 2006. They did.
- Left on I-10. One of New Orleans’ large vulnerabilities is the railroad crossing the I-10 with a large dip underneath. The occasional heavy rain results in pooling several feet deep at this location, stopping all traffic. Obviously, this is very dangerous in the event of hurricane evacuation. The large pump station on the left side just past the railroad crossing was constructed at tax payers expense (to the tune of \$30 million) to alleviate this problem. During Katrina, there was an

- electrical failure that turned the pumps off. The pumps would not have worked anyway, because they were designed to move the water to the 17th Street Canal!
- Right on Bonnabel Boulevard in Metairie;
 - Right on Veterans Boulevard (***TOUR BEGINS HERE***). The story begins by asking the riders to look around them as the bus moves down Veterans Blvd. There is hustle-and-bustle, businesses are open, and cars are everywhere. There are blue roofs as a result of storm damage, and many houses have water damage due to this problem. Along the West Esplanade Canal, there was hundreds of millions of dollars in flood damage due to flooding resulting from some overtopping of the levees, but mostly due to back-flow through the pumping stations and storm related rain. This was caused by the pumps not being turned on immediately.
 - **The main point here is that the 80% of New Orleans that flooded would look like this (businesses open, people in their homes - though working to repair storm related damage) had the levees not broken causing the floods that stood for weeks.**
 - Cross the 17th Street Canal and turn left on Fleur de Lis Drive;
 - At the height of flooding, rescue boats were being launched near the top of the 17th Street overpass on the New Orleans side of the 17th Street Canal. At that time, virtually all one-story houses were completely underwater.
 - See below for explanation of the symbols painted on the houses.
 - Note houses with holes cut in the roof where rescuers went in (while water was still up to the roof) to search for survivors. Most were responding to strange sounds that could have been people in attics.
 - Note that all houses are gutted – no one was spared.
 - Drive slowly down Fleur de Lis Drive toward the lake;
 - Left on Harrison Avenue;
 - The large “house”-looking building on the left was Tony Angelo’s Restaurant, one of our best Italian restaurants. They are not planning to reopen. Note the search symbol painted high on the roof.
 - Directly ahead is the earthen levee that was our only protection until the early 1990s when the concrete wall was placed on top. Sheet piles (large sheets of metal that are driven by pile drivers deep into the earth) were driven to 23 feet, then the walls were built around them.
 - Right on Bellaire Drive – drive slowly toward the lake;
 - On the left, just before Old Hammond Highway, is where the 17th Street Canal protection system collapsed.
 - This break was first seen by firemen at about 7:00 am and reported August 29th, at 2:00 pm, by nola.com.
 - The 17th Street Pumping Station is located about one mile inland from the lake. The same is true for Orleans Canal (which did not break, but added to the flooding because of an incomplete section) and the London Avenue Canal.
 - All pump stations in Jefferson Parish and eastern New Orleans are located at the interface of their canals and the lake, thus acting as a dam that prevented lake water from simply flowing up the canals.

- **Why are the 17th Street, Orleans, and London Avenue pumping stations so far inland?** Because that is where the city ended when they were built in the 1890s.
- **Why did the 17th Street Canal break?** The hurricane pushed water into the lake. As the water level rose, it backed up into the canals, with water gradually rising past the earthen levee to the concrete I-walls. Evidence is that the walls were holding. But, as the water deepened, the shear weight of the water pushing down became immense. The first published theory is that soils below the sheet piling where the break occurred were organic peat (this was unknown to the engineers who did the soil tests). When the weight of the rising water became too great for the organic soil layers to hold it, the water simply pushed downward through the peat and under the sheet piling. This scouring led to the collapse of the wall and the subsequent flooding. We now believe that the weight of the water pushed the wall out. As water rushed into the space beneath the soil where it separated from the wall, it further weakened the system, and it finally collapsed.
- **Important information for understanding the type of damage in this area:**
 - The water rose in the canal from the lake, then spilled into the neighborhood. Think of what happens when one steps on the wall of an inflated child's backyard pool – water flows out around one's ankle, speed that diminishes in strength as the water goes down.
 - Since the water was much higher than the house foundations, it flowed with speed sufficient to completely knock down substantial houses and seriously damage those nearby – moving many off their foundations.
 - Most of the housing in the Westend Neighborhood was of brick construction of high quality. Beyond ground-zero, houses that were completely inundated may still be structurally sound – able to be re-inhabited.
- This neighborhood is white, mid- to upper-middle class with a good sprinkling of wealth. Lot's of the residents were senior citizens. People who lived here included many business owners and managers – very white-collar.
- Proceed down Bellaire Drive to Old Hammond Highway and take a right (if the street is blocked, turn right on 40th Street, then left on Fleur de Lis Drive, then right on Old Hammond Highway);
 - Three weeks after Katrina, all the houses were very grey from the soil residue of the flood, and the streets were impassable
 - All houses here were badly flooded
 - Just a few blocks to the north is the New Orleans Yacht Harbor where about half the sail boats were damaged, sunk, or destroyed. Much of that damage occurred with Rita waters. Two important historic casualties include the burning of the Southern Yacht Club and the collapse of the

historic lighthouse at the entrance to the harbor (its cupola was made of cast iron, and it shattered when it finally fell off the building).

- Normal speed down Robert E. Lee (from West End Boulevard) to Wisner Boulevard;
 - This zone is inhabited by a white and upper socioeconomic class.
 - The Regions Bank at the corner of West End Blvd. and Rober E. Lee was a key site for rescued residents and a police operating center.
 - On the right are many older houses, and Mt. Carmel High School (Catholic).
 - You will cross the Orleans Canal. If you can see over the wall (hard to do from a car), you will note two things that make this canal different from the 17th Street and London Avenue canals. Between Robert E. Lee Blvd. and the lake, it zig-zags and has a lot of vegetation growing on the water side of its levees (in its batture). Though the walls of the Orleans Canal did not fail, its I-walls stopped before they reached the pump station, so as water moved up the canal from the lake it poured into the city (especially City Park) on both sides. There is no official explanation for why these walls were not connected to the pump station.
 - Between St. Bernard Avenue and Wisner Boulevard are the following:
 - On the left, the “bird streets” – so called because they all bear bird names (Egret, Heron, Oriole, etc.). This neighborhood is called Lake Shore/Lake Vista. This is an upscale neighborhood whose residents NEVER believed they would flood. About halfway to the lake, the land in this neighborhood is high enough that the houses remained dry.
 - On the right is City Park, the 4th largest city park in the U.S. It is the only public park in New Orleans that gets no operating financial support from the city and/or state. Its main sources of funding are its golf courses (presently closed), party rentals (same), and Celebration in the Oaks (an annual holiday season event). City Park lost 1 in 7 of its trees, and a huge volunteer effort is getting it cleaned up.
- Turn right on Wisner Boulevard (the lake is at your rear, and you are headed toward Canal Street)
 - On the right, you will pass the U.S.D.A. agricultural research center, John F. Kennedy High School (public), and City Park’s golf courses
 - On the left is Bayou St. John
 - This is a natural bayou, not human-made
 - Bayou St. John is the reason that New Orleans is located where it is:
 - In the 1600s and early 1700s, the economic center of the Gulf coast was Mobile.
 - Shipping from Europe would arrive there, offload imports, reload products needed by people living along the Mississippi, then they would sail into the treacherous Gulf of Mexico to the mouth of the Mississippi River.

Remember, these were small sailing vessels and that part of the Gulf was rather shallow with frequent storms.

- In an attempt to find a protected path to the river, explorers sailed along the coast and entered Lake Pontchartrain. They sailed up a number of natural waterways, but chose Bayou St. John as their site. They anchored at its headwaters, hiked one mile to the Mississippi River, and that is where Bienville decided to found a new city. The idea was to anchor boats in Bayou St. John, portage products one mile to the city, then load them on boats waiting there at anchor.
- Over time, the city dug a canal all the way to what is now Rampart Street, where they built docks and a turning basin.
 - Since Bayou St. John is a natural bayou, its history was one of seasonal overtopping along its edges. As in all river/bayou systems, when the water overtops the small natural levees, energy is lost in the moving water and the largest elements of its sediment being transported (sand) drops out. Thus, over time, the natural levees paralleling the stream gets higher and higher, and it is composed of sand.
 - The houses seen along the east side of Bayou St. John were flooded with up to 3 ft of water as it flowed over the banks. This water flowed while the bayou was swelled with surge from the lake. As it subsided, the houses dried out (they did not hold water for weeks as their nearby neighbors did – houses that are many feet lower).
- Turn left from Wisner Boulevard onto Mirabeau
 - Note how steep the east side of the natural levee of the bayou is – the row of houses directly behind the houses on the ridge (on the street that parallels the Bayou) are very low and took 6 ft or so of water.
 - The neighborhoods traversed along Mirabeau are middle class and above (with some side streets having working poor families) who are ethnically mixed (white, black, Asian, Hispanic). Many professors from New Orleans universities lived in this section.
 - Between Bayou St. John and the London Avenue Canal, you are traveling through the Filmore Neighborhood.
 - Slow at the London Avenue Canal just after you pass Paris Avenue
 - There were two breaks on this canal
 - The one at this point flooded neighborhoods to the east
 - The one near Robert E. Lee Boulevard (near UNO to the north – see the cranes in the distance) broke to the west and flooded neighborhoods between the canal and the Orleans Canal.
 - These two breaks happened the same way as did the 17th Street Canal – from the weight of the water pushing the I-walls back).

- As you continue the drive down Mirabeau, the neighborhood to the left is St. Anthony and to the right is the Dillard Neighborhood.
- Turn right on Elysian Fields Avenue from Mirabeau;
- Normal speed down Elysian Fields Avenue (you are moving toward the river; the Seventh Ward is on your right, and the Eighth Ward is on your left) to North Claiborne Avenue, turn left;
- You will be driving through the St. Roch Neighborhood; when you cross Lesseps Street, you are entering the Bywater Neighborhood. It continues until you cross the Industrial Canal, where you enter the Lower 9th Ward.
- Moderate speed down North Claiborne Avenue to the draw-bridge over the Industrial Canal;
 - On the left (north) is ground-zero for the Lower 9th Ward (the break was about a quarter of a mile wide)
 - The flooding of the Lower 9th was reported by the National Weather Service at 11:00 am, August 29th. It began, however, at 6:50am by overtopping the levee, with the levee collapsing around 7:45am.
- Turn left at Caffin Avenue;
- Slow down Caffin Avenue to Florida Avenue, turn left;
- Moderate speed down Florida Avenue to Forstall Street or Reynes Street, turn left;
- Slow down Forstall or Reynes Street to North Prieur Street, turn right;
- Slow down North Prieur Street to Deslonde Street, turn left and stop;
 - This is ground-zero for the Lower 9th Ward – it flooded during Katrina and Rita – the only place this happened in New Orleans.
 - The flooding here was different from that of the other two canals:
 - The eye of Katrina passed 30 mi east of here in St. Bernard Parish.
 - The storm pushed a 30 ft storm surge in front of it.
 - When the surge hit the east-west 17 ft high levee that protects eastern New Orleans, surge water raced to the west in the Gulf Intracoastal Waterway, at speeds of about 8 ft/second and heights of 15 ft.
 - When the surge hit the perpendicular (north-south) Industrial Canal, much water went over the western levees into those neighborhoods, and surging water went both north (toward the lake) and south (toward the river).
 - The water going south hit the locks on the Industrial Canal at the St. Claude Avenue bridge, and rebounded.
 - At the same time, a huge barge was loose and banging audibly (many reported it was like explosions) against the levee that protected the Lower 9th Ward neighborhood.
 - This extreme water movement (and possibly the barge – not proven yet) resulted in the eastern levee on the Industrial Canal breaking, with a surge as high as 15 ft, moving 5+ ft/sec, screaming into the neighborhoods.
 - **Important information for understanding the type of damage in this area:**

- As described above, the water entering the neighborhoods resulted from a storm surge moving rapidly.
- Since the water was much higher than the house foundations, and moving with surge force, it flowed with speed sufficient to completely knock down houses – moving many off their foundations. One eye witness saw, from his roof on Forstall Street, saw houses from Tennessee and nearby streets rapidly floating toward him.
- Most of the housing in the Lower 9th Ward Neighborhood was of wooden, often very old, and with construction of varying quality. Many houses undoubtedly had serious termite issues.
- It is interesting to see that a few houses seemed to have done much better. They are all two story houses with the lower floor of cinderblock construction.
- Beyond ground-zero, houses that were completely inundated may still be structurally sound enough to be reinhabited. But those that were already having trouble will probably have to be bulldozed.
- There were many, many retired senior citizens who formerly worked in low paying jobs. Thus, they were the “retired” poor living on little to nothing.
 - There are obviously devastated homes that have “Do Not Bulldoze” signs on them. No, the owners are not delusional. They simply want to have the opportunity to reenter their homes before they are bulldozed and removed, or possibly being there when it happens.
- Drive slowly down Deslonde Street to North Derbigny Street, turn left (note the Common Ground blue house on the right – these are young people who have come here to help as volunteers, gutting houses and the like; they are living in tents and the like on North Claiborne). They are a source of water and nourishment for people working on their homes.
- Drive slowly down North Derbigny Street to Caffin Avenue, turn right.
- Drive at a moderate speed down Caffin Avenue
 - Stop in front of Fats Domino’s house (the “RIP” messages were painted by neighbors who thought he died. Actually, he spent a couple of days in the Superdome, then evacuated to Baton Rouge where he stayed with LSU quarterback Jamarcus Russell, who dates his granddaughter)
- Turn right on St. Claude Avenue. To the left (river side) is the Holy Cross Neighborhood; to the right (lake side) is, of course, the Lower 9th Ward.
- Drive back to Loyola University

ENVIRONMENTAL HEALTH CONCERNS:

There are many angles to the health concern debate, and Loyola’s Center for Environmental Communications is about to launch a website detailing what is known, what is not known, and how people should make personal decisions regarding the data.

The bottomline is that there are elevated levels of arsenic in the exposed soil (this is not a phenomenon of the storm, but prior Katrina these soils were fixed beneath concrete and lawns. This has been “normal,” largely unknown, and otherwise tolerated. We don’t know about exposure, but it was not an acute or chronic problem in the area. Now there is much dust and dried mud about that could lead to exposure via the lungs. We don’t know what this means in the short or long term.

In October and November of 2005, the Natural Resources Defense Council (NRDC) took air samples at various spots around the city (mostly in devastated areas) and found huge concentrations of mold spores (over 50,000 mold spores per cubic meter per day – these are registered outside the buildings; inside the unglutted buildings counts were found as high as 650,000 per cubic meter per day). There are no national health standards for such spores, but one can’t help but believe that prolonged exposures to such high concentration are not good for human health.

For more information, visit <http://www.loyolaecomm.org>.

HOW OTHER PLACES FLOODED:

The Times-Picayune published an excellent step-by-step graphic (by staff artist Dan Swenson, research by Bob Marshall) that animates exactly what happened as the storm moved ashore -

<http://www.nola.com/katrina/wide.ssf?/katrina/graphics/flashflood.swf>

LOW LYING AREAS OUTSIDE THE LEVEES TO THE EAST: By August 28th, the day before the storm, all low-lying marshes and communities outside the levee protection system were inundated.

FLOODING IN EASTERN NEW ORLEANS: By 4:30 am on August 29th, water began flowing into eastern New Orleans and Gentilly near the High Rise I-10 overpass via damaged floodwall gates. By 6:30am, flood waters from the “funnel” (surge waters being pushed to the northwest in front of the hurricane that were being forced from the broad expanse of the Lak Borgne area into the levee-encased Gulf Intracoastal Waterway [GIWW]) began overtopping the 17 ft levees along the southern border of eastern New Orleans. Surge water poured over the levees for several hours (but there are no absolute data on how long). This surge ultimately destroyed the levee along many sections of the GIWW, especially from the Michoud Slip (basically near the confluence with the Mississippi River Gulf Outlet and the GIWW) to its eastern end – knocking it down to or near grade level.

The photo below, taken from the Entergy Michoud Plant on the east side of Paris Road (I-510) (under the bridge that crosses the GIWW) by Don McCloskey. It shows how the surge was running left to right in the GIWW, with some overflow over the levee.



Around 8:30am, waters began to flow over a floodwall at the Lakefront Airport, adding to the flooding of eastern New Orleans.

FLOODING THE WEST SIDE OF THE INDUSTRIAL CANAL: By 6:50am, storm surge traveling down the GIWW from the east swells over the top of the west walls of the Industrial Canal, as well as the levee that protects the Lower 9th Ward.

By 7:30am, flood walls on the western side of the Industrial Canal that face the GIWW collapsed and the result was massive flooding from lower Gentilly to Bywater, and west to Treme.

FLOODING OF THE LOWER 9TH WARD AND POINTS EAST: Two floodwall sections on the Industrial Canal on the west side of the Lower 9th Ward collapsed at 7:45am, causing massive flooding locally and extending all the way into Chalmette. By 8:30pm, flood waters passed over the 40-Arpent Canal Levee and mixed with those from the Industrial Canal.

It is important to remember that the Lower 9th Ward reflooded as a result of rising waters from Hurricane Rita on or about September 24th. The water followed the same path as in Katrina – up the GIWW and down the Industrial Canal. The repair work from the damage caused by Katrina was not sufficient to protect the neighborhood.

FLOODING IN ST. BERNARD PARISH: This area flooded as a result of the 30 ft storm surge overtopping levees and breaches that occurred as a result of the surge. By dawn on August 29th, a number of breaks along the MRGO levee were created by storm activity.

Around 8:30am, flood waters topped the 40-Arpent Canal Levee (only 7-9 ft in height), completing the flooding from Chalmette to all points east of Poydras.

FLOODING OF THE LAKEFRONT AREAS BETWEEN THE 17TH STREET CANAL AND THE INDUSTRIAL CANAL: At 6:30am, the eastern wall just south of the Old Hammond Hwy bridge was leaving and leaking.

About 9:00am, levee walls on the London Avenue Canal are leaning and water is leaking through. A couple of miles away, lake surge reached the point where the Orleans Canal reaches its pump station; there was a gap with no I-walls on top of the dirt levee, meaning there was a 6 ft difference in height that allowed water to flood City Park.

The London Avenue Canal I-wall on the east and just to the north of Mirabeau collapsed at 9:30am, continuing the flooding of Gentilly.

At 9:45am, the location of the leak at the 17th Street Canal failed, and water rushed into the Westend Neighborhood, eventually flooding much of mid-city all the way to the Freret Street area, as well as parts of Metairie (around the country clubs and south of the railroad tracks north of Airline Drive; these waters filled the Causeway-Airline underpass).

By 10:30am, the I-wall on the London Avenue Canal just south of the Robert E. Lee Blvd. bridge collapsed, sending 8 ft of water into the area between the canal and City Park, and adding greatly to the flooding of the rest of New Orleans.

FLOODING IN EAST JEFFERSON PARISH: All flooding in east Jefferson resulted from back-flow through the pumping stations, storm-related rain, and failure to turn on the pumps. This was well under way by mid-morning on August 29th.

FLOODING IN PLAQUEMINES PARISH: All flooding in this parish was a direct result of the storm surge overwhelming the levee system. Remember that Katrina passed over the parish from the southwest, making landfall at 6:10am with a 21 ft surge flowing over the parish – the eye crossed at Buras.

FLOODING IN ST. TAMMANY PARISH: Virtually all the flood damage to St. Tammany Parish was a result of a 15 ft storm surge, either directly from the movement of the eye or from the surge filling the lake and being pushed north by the winds. Flooding was extensive up the Pearl River valley, and extended west as far as Madisonville.

THE END OF FLOODING FROM KATRINA: Water flowed into the city from Lake Pontchartrain until mid-day September 1st, when the level of the lake equalized with that of the flooded city. Note: the Lower 9th Ward reflooded during Hurricane Rita on September 24th.

OVERRIDING MESSAGES OF THE TOUR:

- Be very aware of victim's emotions and needs.
- The path to recovery will take a long time.
- New Orleans has an opportunity to rebuild a renewed, modern city while keeping all its cultural amenities.
- Many people are hurting.
- The destruction crossed all socioeconomic classes.
- There are vast differences in destruction between ground-zero sites and elsewhere. People and property at ground-zero didn't have a chance.
- There were 58 official levee failures (this tour passes three of the main breaches).
- Discuss the environmental concerns that persist.
- Discuss what this means to Loyola students.
- Discuss avenues of public and community service.
- Discuss precautions associated with helping in the devastated areas.
- Natural disaster vs human error (the latter includes failure in design and/or to respond).

THINGS TO NOTICE:

- Absence of electricity in most places.
- Stop signs where there used to be traffic lights.
- Signs on buildings.
- American flags and Mary statues.

Electricity and traffic lights were restored in mid-spring 2006.

WHAT DO THE SYMBOLS ON THE HOUSES MEAN?

There is an accepted protocol (not always followed precisely) that emanates from the following book: California Fire Service. 2001. Fire Scope. Fire Service Field Operations Guide. 10th ed. Incidence Command Systems Publication. ISC 420-1.

The formal protocol is as follows: When a Search & Rescue team enters a large building, a member 1) places a "/" on the wall (meaning that they are inside) and 2) an arrow to its right (↑ means they entered from the north, ↓ from the south, ← from the west, and → from the east). As mentioned, this is done in large buildings so that other arriving Search & Rescue teams know that someone is in the building and how they entered.

When the team exits, they place a “\”, thus completing an X and showing that they have left the building.

During Katrina, Search & Rescue teams mainly entered small buildings and homes, so they simply placed an “X” near where they entered. They then place numbers/letters in the quadrants for informational purposes:

- Numbers in the top quadrant show the date of the visit.
- Letters (sometimes numbers) in the left quadrant are the symbol of the Search & Rescue Team that visited the site.
- The lower quadrant indicates what was found (one means one body was found; a zero means no body found; some teams may have indicated live and dead [e.g., 1-live, 3 - dead]).
- The area in the right quadrant is for hazard messages (rats [rats inside], hole in floor, gas leak, dog/cat; some teams used this quadrant for other messages: “no ans” [=no answer] if their shouts went unanswered; “NE” [=not entered]; “attic” means they entered the attic; “int” means they entered the interior of the house; sometimes it has letters indicating a second visiting team).





The dot is a zero.

There were a number of groups from other cities that formed task forces with a specific name. On Elysian Fields one sees houses marked with an encircled TFW (Task Force Wildcat).

9-8-06



And of course there was humor.



9-8-06

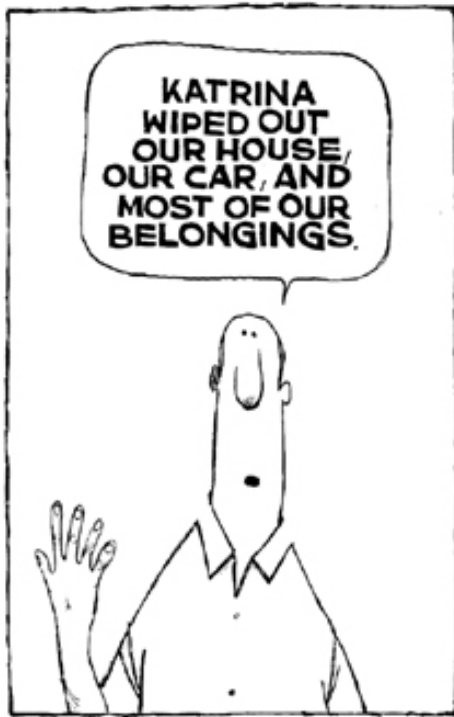
THERE WERE MANY SIGNS WARNING LOOTERS TO BEWARE.



9-8-06



WHAT HAVE NEW ORLEANIANS LEARNED?



/30/