Hurricane Katrina August 29, 2005

Situation and Response Paper



Prepared by Crawford & Company www.crawfordand.company.com

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Briefing

Crawford & Company offers the following information, maps, and images of Hurricane Katrina.

Through Crawford Catastrophe Services, Claims Management Services, Global Technical Services, and Global Marine and Transportation, the Company is responding to personal lines, commercial, and marine losses in the affected Gulf Coast.

This briefing is divided into three sections:

- Facts and Figures
- Maps of affected areas
- Issues and Articles

Information in this briefing is drawn from a variety of sources. Every effort has been made to give the appropriate credit or attribution. The information contained herein is accurate to the best of our knowledge at the time. Critical business decisions should not rely solely upon this information, but rather, should be made only after facts can be verified independently of our report.



Facts and Figures Hurricane Katrina August 29, 2005

Time, location of landfall and other key facts:

Hurricane Katrina made landfall just east of Grand Isle, Louisiana, at the town of Buras at 6:10 a.m. CDT (1110 GMT) on Monday 29 August. Katrina veered east at the last moment, sparing the city of New Orleans a direct hit, but flood walls protecting the low-lying city were breached in at least three places. Within 24 hours, about 80 percent of the city was under flood water up to20 feet (6 m) deep. The storm hit Gulfport, Mississippi, with 135 mph (217 km/h) winds. In nearby Bay St. Louis, a storm surge nearly 23.1 feet (7 m) high came ashore, traveling 3.7 miles (6 km) inland. A 30-foot (9 m) surge of water was reported in Biloxi, Mississippi, a city of 50,000 people. It's possible the flooding destroyed 90 percent of buildings along the coast at Biloxi and Gulfport, leaving great piles of debris.

Category designation:

The National Oceanic and Atmospheric Administration (NOAA) has designated Katrina a category four hurricane on the Saffir-Simpson scale, based largely on the storm's 145 mph (232 km/h) winds. There is, however, some debate emerging as to the accuracy of the designation. Boston-based catastrophe modeler AIR Worldwide Corp. notes that based on Katrina's minimum pressure of 918 millibars, the storm can be considered a category five storm.

Ranking Katrina:

When all of Katrina's figures are considered, Katrina undoubtedly ranks among the most severe storms ever to strike the United States. Camille, which struck much the same area of the Gulf Coast in 1969, was more intense although more condensed: Camille's strongest winds extended nine miles (14.4 km) from its center, whereas Katrina's reached about 30 miles (48 km) from its center. Measured by extent of hurricane-force winds, Katrina again exceeds another devastating hurricane, 1992's Andrew: Katrina's hurricane-force winds extended 125 miles (200 km) from the center, compared with Andrew's 75 miles (120 km) from center.

The human toll:

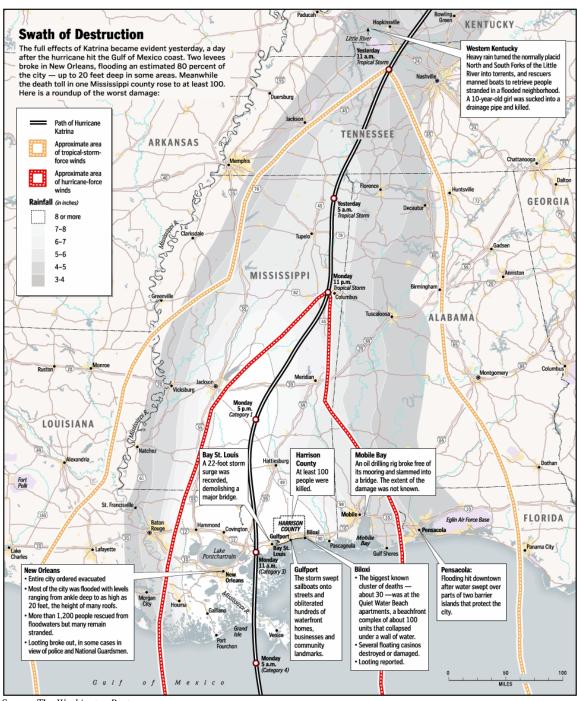
According to the *Washington Post*, as of September 15, across five Gulf Coast states, the death toll from Katrina had reached 794, including 558 in Louisiana. Tens of thousands of evacuees from the Gulf Coast have dispersed to cities across the United States.

The economic toll:

Since Katrina struck, numerous consultancies, risk modelers, and other organizations have released estimates of the insured losses arising from Katrina. Estimates vary widely, from \$17 billion to as high as \$60 billion. Total losses from Katrina will likely exceed \$100 billion. Whatever the final figure, insured losses from Katrina will almost surely exceed those of 1992's Hurricane Andrew, until now the most costly natural disaster in U.S. history, with losses of \$21 billion (adjusted for inflation).

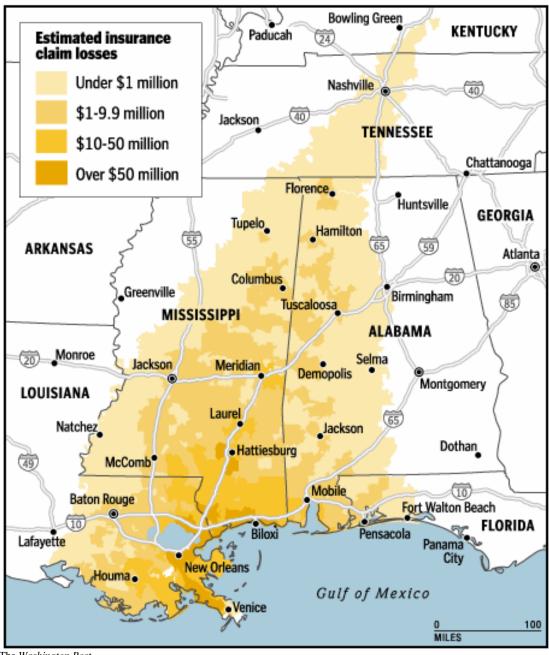


Katrina's Swath of Destruction



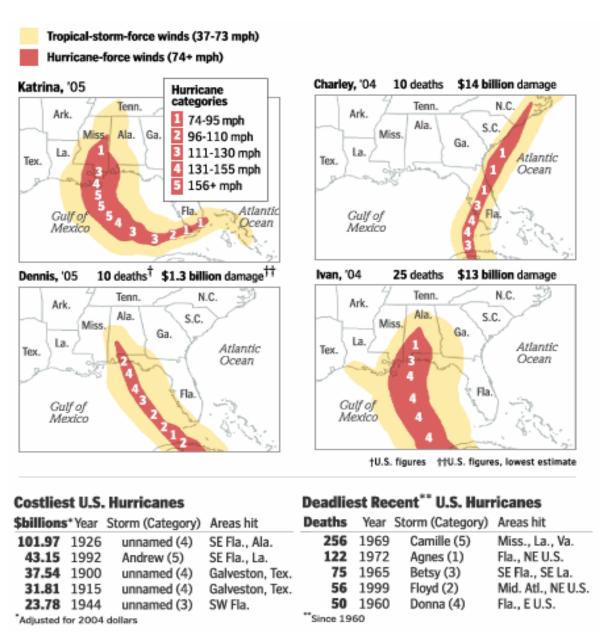


Estimated Insurance Claims



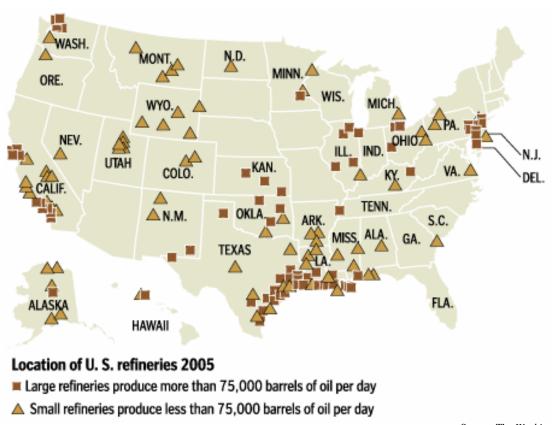


Katrina Compared With Recent Catastrophic Storms



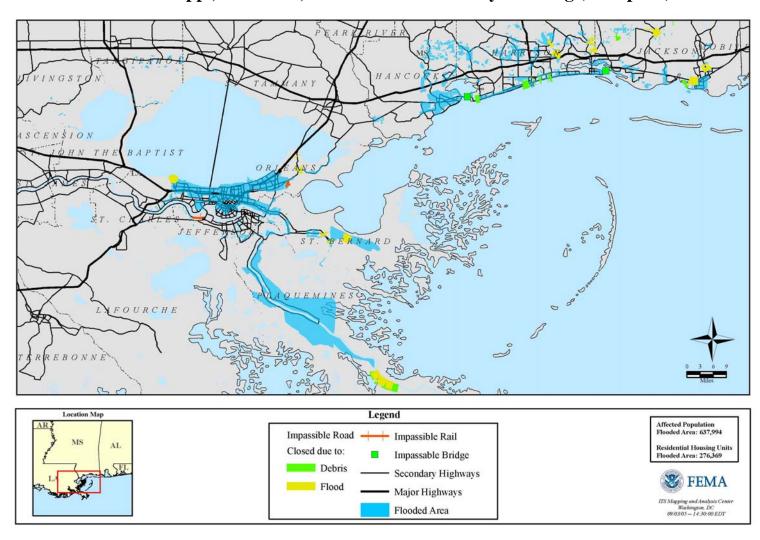


Location of U.S. Oil Refineries



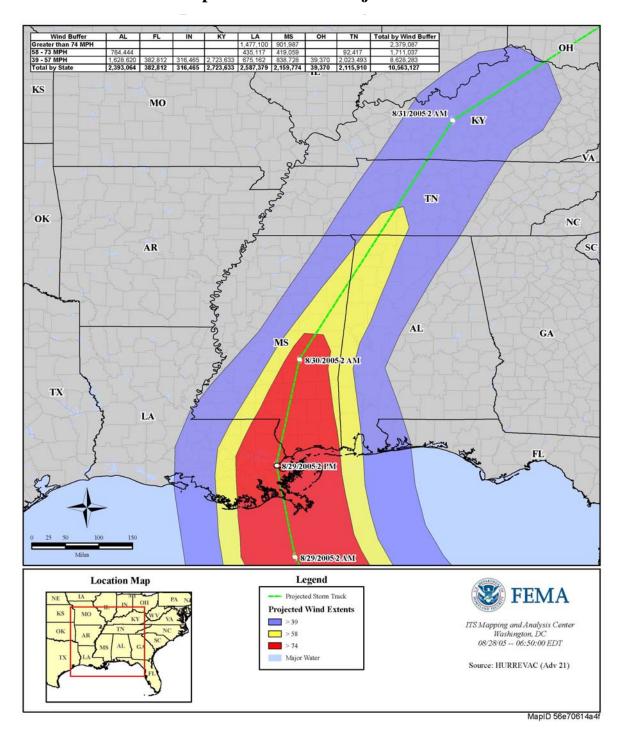


Parts of Mississippi, Louisiana, & Alabama Affected by Flooding (03 Sep. 05)



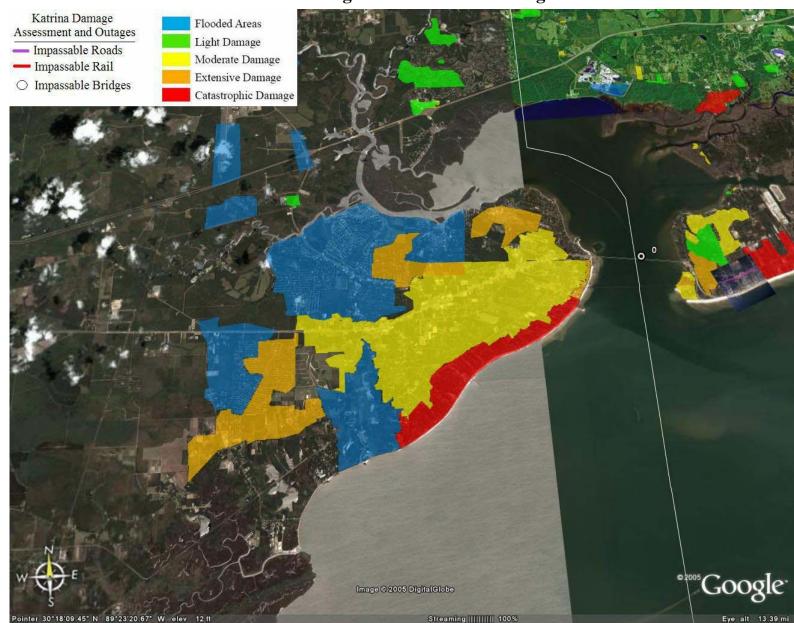


Affected Population Within Projected Wind Extents



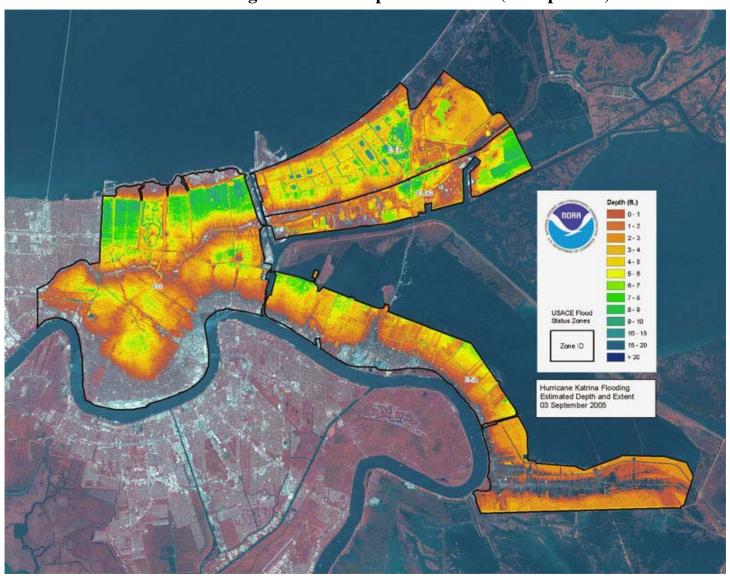


Katrina Damage Assessment and Outages





Katrina Flooding: Estimated Depth and Extent (03 Sep. 2005)





Photographs of New Orleans, Post-Katrina
Taken by Crawford & Company Executive General Adjuster Robert Krywiak















Issues Related to the Hurricane Katrina Event

First Party Coverage Considerations:

The application of policy coverage for the extensive loss exposures in the four most extensively affected states of Florida, Alabama, Mississippi, and Louisiana has been addressed by various concerns. Discussion surround the issues of windstorm versus water damage, Valued Policy Law, Constructive Total Loss, Mold, Number of Occurrences, Pollution, Vandalism and Malicious Mischief, Business Interruption, Civil Authority, Ingress/Egress, Off-Premises Power, and Deductible application.

Damage caused by flooding has been much more extensive from Hurricane Katrina than other named storms. Estimates place the number of New Orleans residences covered by flood insurance at 50 percent. In Mississippi, residences with flood insurance are estimated at only 20 percent.

Business-interruption loss exposures will be extensive due to damages in the affected areas, depriving many businesses access to supply chains and/or customers. With access to large swaths of New Orleans and other areas prohibited either due to general condition of flooding or by government order(s), companies unable to conduct business will seek claims.

Marine, Ports, and Transportation:

The greater New Orleans area is home to the United States' most active ports, and the damage to shipping and transportation in the region was severe. Soon after Katrina swept through, Crawford's Marine and Transportation began handling logistics for insured and insurers and helping them get on the road to commercial recovery. Response includes surveying damaged vessels; removal of debris and displaced equipment; handling environmental issues; and locating, cataloging, and inspecting containers and their contents.

Limited Accessibility

Certain factors have resulted in some limited access to insured risks: damage to infrastructure, including roads, highways, and bridges out of service; environmental concerns, including polluted water in flooded areas.

Availability of Qualified Adjusters:

Given the scope and scale of Katrina, and the length of time likely to be required to account for all of the damage, recruiting and retaining qualified CAT adjusters has emerged as an issue for third-party administrators. Expedited training and licensing, together with attentive, conscientious management of personnel, will likely separate successful administrators from the less successful.

Displaced Policyholders:

The number of displaced Gulf Coast residents is staggering. Many have taken up residence in other cities and states and have not yet returned to their homes. A delayed return to something approaching pre-Katrina life may postpone full-scale adjusting. In the meantime, contacting policyholders is proving difficult in many cases. Many evacuees left with limited possession and don't know who their insurance carrier is, only their independent agent, who may also be displaced.



"In Katrina's Wake: Businesses Face Insurance Disputes" By Theo Francis

The Wall Street Journal; September 9, 2005; A13

Insurance disputes over payments for flooding and other storm damage could extend far beyond homeowners, as businesses of all sizes begin to confront insurers over lost profits from Hurricane Katrina.

Billions of dollars of payments for so-called business-interruption insurance -- which reimburses owners for some expenses and lost profits -- will hinge on many of the same issues facing homeowners, including whether damage was caused by flooding or by wind and rain. Standard homeowners' policies exclude flood coverage, which generally must be bought from the federal government, and coverage of flooding damage often is limited under commercial policies, especially for small businesses.

Meantime, Mississippi regulators called on insurers to give home and business policyholders the benefit of the doubt when evaluating claims, as concern continued to mount that hundreds of thousands of homeowners in the hard-hit Gulf states won't have insurance proceeds big enough to cover the cost of repairing their houses. In his visit to Gulfport, Miss., Vice President Dick Cheney said this concern had come up in his discussions with officials in the region.

"Some people have flood insurance but those who don't have flood insurance...the question is whether or not they'll get covered by their private policies," he said, according to a transcript of his remarks.

Officials have only begun to come to grips with the vast amount of flooding damage caused by Katrina. Preliminary insurance-industry estimates of damage top \$100 billion, with private-sector insurers expected to pick up between \$17 billion and \$35 billion, though some informal industry estimates now reach \$50 billion.

Businesses will be prominent in the debate over how much insurers should pay. Disputes are particularly likely over the complexities of business-interruption insurance, insurance adjusters and lawyers said. In addition to reimbursing business owners for some continuing business expenses and profit lost from direct storm damage, such policies also provide some coverage when business is lost as a result of orders of civil authority.

When business-interruption payments are triggered by direct damage to a property, they can continue for months, sometimes until business returns to normal. Business lost because of orders of civil authority -- the mandatory evacuation of New Orleans, for example -- are typically less generous, ending after two weeks or a month, attorneys said. Some civil-authority claims only kick in if the order stemmed from a peril covered under the property-insurance side of the contract, which could be a source of dispute in the case of flooding in New Orleans, attorneys said.

Claims decisions are expected to hinge on the specific policy language, with some disputes stretching out years. Negotiations also will play a big role. "While the attorneys are having a love-fest for the next five years...there will be tons of cases that will be settled on whatever the adjusters agree to," said Franklin Horowitz, a claims adjuster and policyholder consultant.

After receiving reports of homeowners' claims denied without an adjuster visiting the property, Mississippi Insurance Commissioner George Dale issued a bulletin telling insurers to inspect properties before denying claims, and, "where there is any doubt, that doubt will be resolved in finding coverage."

The state's deputy insurance commissioner, Lee Harrell, added that insurers would be expected to prove to both policyholders and regulators that denied claims stemmed from flooding, which could be difficult where buildings were demolished by the storm. "If there's nobody there that saw it, if there's nothing left, how is anybody going to be able to prove that it was water?" he said. "We're going to come and look over their shoulders."



"Picking Up the Pieces from Katrina: What Lies Ahead" Knowledge@Wharton; Public Policy and Management; September 7-20, 2005

When Hurricane Andrew struck south Florida in 1992, it caused what was then the largest natural disaster in American history, with more than \$30 billion worth of damage. In the storm's aftermath, the state's property-and-casualty insurance industry fell into a tailspin. Several small insurers collapsed. Big companies began dropping Florida policies by the thousands. State regulators declared a moratorium on cancellations and created a state pool to cover uninsured homeowners. But try as they might, the regulators could only slow, not stop, the cancellations, and the largely unfunded state pool swelled to hundreds of thousands of policies over the next several years. A decade later, the storm's effects continued to ripple through the state's insurance sector.

The economic damage from Hurricane Katrina looks to be larger, and many commentators already are calling it the costliest natural disaster ever to strike the United States. Indeed, some estimates put the damages/losses as high as \$200 billion. Meanwhile, the oil-and-gas industry has reported serious setbacks, with oil-drilling platforms toppled and refineries knocked out of commission. The insurance industry will suffer, too, in the next few months as businesses and homeowners file claims for their losses. And regionally, of course, the damage is cataclysmic. Much of New Orleans remains flooded, and an industry on which the city and its people depend - tourism -- has no clear path for returning to viability. The French Quarter may have been spared, but many of the owners and employees of its restaurants, bars and hotels are holed up, for the foreseeable future, in faraway places like Houston and Dallas.

Katrina's economic impact is therefore likely to be lasting and large, says Wharton finance professor Jeremy Siegel. "Everyone in that area of the country -- all their purchases are going to be curtailed until they know where they are going to live," he says. "Several million people aren't going to be buyers in the near future." Even worse could be the national impact on gas prices and thus household and corporate costs. "We were already at the limit of our refining capacity. So this couldn't have happened at a worse time in terms of the oil markets."

But unlike Andrew, Katrina may end up largely sparing private insurers, says Howard Kunreuther, Wharton operations and information management professor and an expert on insurance. The first week's reports suggest that flooding from Lake Pontchartrain, after levees broke, caused much of New Orleans' destruction. Private insurance doesn't cover flood losses; the federal flood insurance program does. "If the damage to a property was caused by water, the industry won't have to pay a dime," he says.

Of course, the havoc that a hurricane wreaks on real estate rarely fits neatly into one category. Often, a building will be flooded but also lose part of its roof on account of the wind, according to Kunreuther. That ambiguity may cause squabbles between the private sector and the government and between homeowners and their insurers. "There are going to be many lawsuits," Kunreuther predicts. "If it turns out that flood insurance doesn't cover an entire house, will the insurance company step up? The irony of all this is that a poorly built house, which lost its roof, is more likely to get that coverage than a well-built one that didn't lose its roof."

Flood-caused losses are probably so large that they may outstrip the flood insurance program's ability to pay, Kunreuther suggests. If that happens, federal lawmakers will have to come forward with more funds. In addition, private insurers could feel the brunt of Katrina in their business interruption coverage since many firms, small and large, in New Orleans and along the Gulf Coast may be closed for months.

Hurricane-prone Real Estate

Longer term, Hurricane Katrina could induce property-and-casualty insurers to re-examine the geographic distribution of their policies and raise premiums, Kunreuther says. Even if these insurers escape large payouts for the storm, it will remind them of the ever-growing risks they face. As the country's population increasingly shifts to the Sunbelt, "people are moving into harm's way," he says.

Take Florida, which has been called the most hurricane-prone piece of real estate in the world. Its population swelled by more than a third from 1990 to 2004. The bulk of that growth has occurred along its nearly 1,200 miles



of coastline. Southern seaports such as Charleston, S.C., and Wilmington, N.C., have also boomed during the same period.

Unlike private insurers, the oil-and-gas industry -- concentrated along precisely the stretch of Gulf of Mexico coastline that the storm slammed -- wasn't spared by Katrina. According to the U.S. Department of Energy, Katrina cut Gulf oil production by 90% and has shuttered or seriously hampered refineries, reducing the nation's gasoline production by 10%.

"Before Katrina, we were running flat out in the U.S. on refining," says Siegel. "Since the storm, the President had said he is releasing oil from the strategic reserve. The problem with the reserve is that it's oil, not refined products. The only way we can get the refined products is to shift them from other countries. And that takes time because they have to go on tankers."

As prices for gasoline and other refined petroleum products rise, so will costs across the transportation sector. "All forms of transportation -- cars, buses, trucks, airplanes and diesel trains -- are going to be affected and will have to raise prices to cover their costs," Siegel says. With such a hefty hit in the form of fuel prices, many economists are puzzling over the effect on the nation's economic growth, he adds. "My estimate is that this could take 1 to 2 percentage points off second-half GDP. Does that push you into recession? Unless the psychological impact flips people overboard -- like the hysteria that existed during the 1970s energy crisis -- I don't think so."

One positive sign is that bond investors have responded calmly to Katrina and the attendant economic news, Siegel notes. "Even though oil and gas prices are shooting up, interest rates aren't. The bond market seems to be seeing this as a temporary increase. And there appears to be a feeling in the market that the Federal Reserve will pause in its interest-rate increases after its September 20 meeting."

What about the economic future of the Crescent City itself, home to one of America's most storied urban cultures, with its zydeco and voodoo, crawfish gumbo and oyster po'boys? "New Orleans will be rebuilt and will be as vibrant as it was in the past," Siegel predicts. "The French Quarter, the draw for tourists, has been relatively undamaged. But there will have to be a few billion dollars spent on making those levees work. They probably would have held if they had been in [better] condition."

Witold Rybczynski, a Wharton real-estate professor, agrees. "Cities almost always come back," he says. "In a city, the investment in infrastructure, both physical and legal, is so great that it always seems to outweigh the destruction." A city, for example, already has had neighborhoods and thoroughfares mapped out and public rights of way established. In addition, cities seem to have a natural lifecycle that favors their endurance, Rybczynski added. They can grow quickly -- think of a boomtown like, say, Las Vegas in recent years -- but tend to decline slowly. "There's an inertia built in with cities; people have homes and jobs. When decline happens, it's very slow."

The Will to Rebuild

A classic example of the human impulse to preserve cities was Warsaw after World War II, Rybczynski notes. "The city was virtually 100% destroyed. The Germans essentially razed it. But there was no question that the city would be rebuilt. I think the same thing will be true in New Orleans."

Todd Sinai, also a Wharton real estate professor, cites the smaller but more recent example of Oakland Hills, Calif., where a wildfire consumed about 3,000 homes in 1991. There, as with New Orleans and its flood-prone location, the community had physical features that exacerbated its plight. "In part, the houses burned down because the roads were too narrow and winding, and the fire trucks had trouble getting to the fire," he says. "Electric poles and wires also fell, blocking the roads. But what the community did was put it back the way it was. They didn't straighten the streets or bury the utility lines, though some neighborhoods did end up paying to have those lines buried."

Even if New Orleans ends up looking much like it did before Katrina, the storm still could wallop the local economy, Rybczynski says. The city could lose population and may have difficulty jumpstarting its tourist industry. Photos of flooded streets and floating bodies do little to entice visitors. And New Orleans probably won't be



functioning normally by February when its biggest annual event, Mardi Gras, rolls around. As Wharton real estate professor Georgette Poindexter notes, "we're not talking about any city. This is a city with a unique identity in the U.S. Its product is its flavor -- its culture, its architecture, the experience of walking through the French quarter," all of which may be difficult to recreate.

What, then, should local and national leaders do to rebuild New Orleans and ensure, as much as possible, the future health of its economy? "A lot of it has to do with what the reconstruction is; a business center is different from a neighborhood, and a middle-class neighborhood is different from a poor one," Rybczynski adds. "They will require different solutions. Reconstructing neighborhoods isn't done through attracting corporate money. And it's going to require a type of social housing, a strategy that recognizes that some people are poor, and that there is no miracle that will turn them into rich people. Trying to get tourism back on track quickly will be very important. You have got to focus on that. When the enormity of this sinks in, my guess is that there will be a rallying around. At that point, the resources of the whole country can be brought to bear."

When that realization comes -- if it isn't already dawning -- companies must take an ethical accounting and assess their obligations to people in New Orleans, says Thomas W. Dunfee, Wharton professor of legal studies and business ethics. "I would distinguish between companies with vitally needed resources, like a nearby clinic, and other companies." For example, firms without critical resources - such as a snack food manufacturer -- should assess what they can afford and balance the needs of the people in New Orleans against their obligations to shareholders, employees and customers. At the same time, Dunfee adds, "firms with essential resources have an affirmative duty of rescue and should redirect resources that they normally give to philanthropy toward this disaster."

A View from Europe

October 1998 is a month that Juan Carlos Martínez Lázaro will never forget. A professor of economics at the Instituto de Empresa, the Madrid-based business school, he was paying a personal visit to Guatemala when Hurricane Mitch devastated several countries in Central America. In Guatemala, Honduras, Nicaragua and El Salvador, the countries that suffered the greatest damage, 10,500 people died and close to another 10,000 disappeared. Overall, some seven million people were affected by Mitch.

In addition to the tremendous human tragedy, the hurricane was a genuine economic disaster for the region. "The GDP fell by approximately 20%," notes Martínez Lázaro. "The economic impact is much greater on small countries," he adds, comparing the impact of Mitch with the impact of Hurricane Katrina in the United States. While Katrina hit the Gulf coast area hard, "Mitch destroyed the economies of all those countries in every sector, not just in tourism. It was total and comprehensive, and it also led to an enormous wave of emigration." Furthermore, the U.S. "will be able to rebuild the devastated zones while Central America, in contrast, relied entirely on foreign aid. In the U.S., there will be refugees, but the people who have been displaced will be going back to their houses sooner or later. Katrina will not produce the same wave of emigration that occurred in Central America."

The entire world, Martínez Lázaro adds, "is surprised by the magnitude of the tragedy. If this had happened somewhere else, particularly in a developing country, we would not have been so surprised. This has shattered the image [that people have of the U.S.]....Everyone thought that the country could control the situation and that it did not need help."

As to the ripple effects of Katrina worldwide, Martínez Lázaro believes "the cost is going to be very high; it will have a major impact on the American economy and from there, the impact will spread to the rest of the world. It will restrain rising interest rates in the United States and raise the price of crude oil, which will affect us in Europe. In addition, the hurricane happened at a bad time, after 15 months of continuous increases in petroleum prices, just when the winter season is about to begin in the Northern Hemisphere and indoor heating is used the most." The rising price for petroleum will mean an upturn in inflation, Martínez Lázaro predicts, which is already worrying all of Europe.



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Lessons from the Catastrophes: Implications for Claims Handlers and Risk Managers By Jonathan Clark Senior Vice President Crawford International, Business Solutions Group London

Four land-falling hurricanes and a disastrous tsunami in the Indian Ocean in 2004 have highlighted, again, the vulnerability of the business systems we have created in the modern world. We are also reminded of the vulnerability of man in the planet, but that can be more ably addressed by others. There will not be a review here of the role of insurance in major disasters; rather, we will look at some of the implications for claims handlers and risk managers.

The focus here will be upon the way in which large-scale disasters result in very different business interruption exposures and consequent financial outcomes. Whilst chaos theorists may debate the impact of a butterfly flapping its wings, we can see at first hand how supply chains are disrupted, and the business impacts are not always what we may have anticipated.

What happens following a large-scale incident can be simply stated thus: that either a business cannot supply or alternatively there is no (or reduced) demand. The logic of both outcomes is readily apparent, although that of the first is easier to reconcile: The business is so damaged it cannot trade and business is lost and a claim for gross profit is made. The second proposition is more complex: The business may have suffered damage, major or minor, and customers do not want to return to the business or cannot take up its products. For example, there may be a "loss of attraction" of a damaged area that results in customers going to what they see as a less vulnerable location do their shopping. It may perhaps turn out that infrastructure such as offices or factories are permanently re-located to safer locations; thus, a business relying on the regeneration of a damaged area will find its market has moved permanently away. Alternatively, the business is put rapidly in shape to trade but the customer base is just not ready.

A prime example is often seen in the Caribbean area, where power may be rapidly restored, but the customers are just not there or their homes are so wrecked that they would have no need of power. A lot of effort is exercised in getting the business back in short order, and most major loss claims handling techniques focus on minimizing business interruption periods. Yet the outcome of the effort is that losses are still sustained. The example is an extreme one but the point is there nonetheless.

So where does this take us? Well, it seems apparent handling the impact of major natural catastrophes from a claims perspective is no easy task. Not only is it necessary to understand the individual business where damage has occurred, but there is also a need to fully understand the damage around a region. This means a need to clearly get to grips with the timeframes in which other key elements of infrastructure will be out. In many respects, our example of a power supply is a straightforward one, since clearly someone will need power as soon as possible and so it must be restored in the shortest possible timeframe.

Other examples may be harder to address, so let us look at such an example: Consider hurricane damage to a hotel that relies on tourists being brought in by road. Options are available to fast-track repairs to the hotel and get it ready for action some six weeks quicker than might otherwise be the case; however, the road will not be rebuilt within those six weeks, and, indeed, it may well be a few months after that before it is suitable for tourist traffic. What is the right decision from a claims mitigation perspective? The maths is easy; less so are the business pressures and commercial considerations. Miss the window for repair and it may be lost for a long time.

So what can we learn from those brief examples? As ever it is clearly critical to understand the business that has been affected; now, however, we are concerned with a wider arena of damage and need to understand how that will affect the recovery plan for each individual business. From a macro perspective, it may well be that there is a need to get to grips with any particular critical path or blockage that impacts all businesses in their ability to recover. The



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impact of a catastrophe is to remove the single incident from the supply chain in which it sits to the wider business system that is around it.

What this means is a need to co-ordinate a portfolio of claims to ensure that the best decisions can be made on the best information. Here we see the need to link to what local government agencies are doing to help get infrastructure back up and running. No longer is the claim to be evaluated in isolation, but rather, it is very much to be considered against what might be called the art of the possible. Thus any plans or loss models developed can be usefully referenced to the wider logistical issues.

Such a pattern has been seen when claims following major bomb blasts have occurred in London and Manchester. The 9/11 terrorist attacks threw the whole issue of interlinking losses into a starker perspective, but many of the issues had already been debated in the prior incidents. In both London and Manchester, large numbers of office workers changed their work locations, and for a period this influenced buying patterns and hence income for businesses in both the affected areas and immediate surroundings. As has already been commented: "no customers means no demand."

Why should this matter to the claims adjuster and risk manager? It is often noted that the business interruption policy is one that sees no loss at day one, and, further, the policy can take into account events that occur after the damage has occurred. This happens since the policy is triggered by the insured peril and the measure of quantum is typically evaluated in U.K. and U.S. wordings as that which is the difference between the gross profit that would have accrued if the business was unaffected by damage and that which did. This is described as "but for" the damage, and it becomes important to understand what factors have impacted the revenue of the business and in turn the gross profit and which of these factors flow from the business's inability to trade.

If an area is permanently blighted by an incident such that the customer base no longer exists, this may be deemed "loss of attraction" and not be provided for by the policy. However, if revenue is lost because a business is unable a meet a demand for its products due its own damage, then that revenue, even if higher than budgeted due to the incident, will probably be recoverable. The exact terms of the policy, whether U.S. or U.K. wording, will dictate the relevant period, but the principle is established. Thus if the whole city has been flooded, and after clean-up a retail outlet is still being repaired but no tourists want to come to the city, that "loss of attraction" may well not be part of the claims payment.

The answer as always is to get the necessary extensions to cover and curtail the debate. The key feature here is that the nature of catastrophe is to magnify the losses and the impact of these; there is, perhaps inevitably, a greater uncertainty to an outcome than we might see in the case of a "one-off" fire. In the one-off incident, the post-incident planning and risk management will be not dissimilar in looking at the business and developing plans to get it back in action as quickly as possible. The difference will be that for the one-off, much of the planning will be about looking at supply chain rather than the whole issue of whether there will still be demand.

So what we have been seeing in these large-scale catastrophes has been a need to reflect on how best to mitigate loss and to plan for its impact. The best plans can be those that allow multiple scenarios to be developed and which ensure good information is gathered in a timely and effective fashion. The scope of policy cover purchased for business interruption should be considered carefully; loss of attraction and customers and suppliers' extensions can play key roles in bringing clarity to catastrophe situations. Large-scale incidents have always been there; what we see now is how globalization plays out against the natural world, and there is always still much for us to learn in managing the impact of disaster.



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September 16, 2005

Assignments:

Crawford & Company

FAX: 404-240-4382 Phone: 404-705-6520 5620 Glenridge Drive, N.E. Atlanta, GA 30342

Please call the CAT office below for contact or the cell-phone of the adjuster or Team Manager.

Crawford & Company CAT Office

5465 Cottage Hill Road Mobile, AL 36609

Ph: 251-662-2089 Ph: 251-602-6788

Commercial Claims Management

Richard Lafayette AVP, Global Managing Director Cell Phone 903-520-0305 Technical Services

Executive General Adjusters

Danny Brown	817 412 1700
Pete Howell	916 759 2405
James Klauke	303 919 4436
Matthew	954 240 1411
Bagdanavich	
Tony Effer	703 409 3411
Joe Kucharz	847 927 2910
Dennis Rendina	913 909 4552
Stuart Mintz	504 251 7795
Robert McGraw	201 650 1252
Desmond	210 926 9182
Sullivan	
Derrell	704 904 9776
Livingston	
Bruce Winther	405 747 6209
Joe Garlena	717 873 3298
Marco Deleon	610 220 0146
Stephan Astrov	469 371 2787
Ronald Plaster	214 435 6443

Richard Teichen, Team Manager	847 902 5671
John Lewandowski	281 352 3439
David McCallister	720 641 0565
Tim Meegan	716 864 6996
Referral to Branches	Jackson,
	Mobile, Baton
	Rouge
	Branches

Jim Perry, Team Manager	909 615 5766
Robert Knutowski	828 342 0054
Dick Spies	307 680 3686
Dan Montgomery	727 463 6633
Randy Bates	251 605 2750
Rich Rollyson	309 241 3162

Jon McCreath, Team Manager	303 506 7015
Pat Duggan	210 396 0320
Dan Potter	850 522 5436
Dennis Berquist	423 922 0009
Joshua Delgado	951 707 3888
Earl Garriott	563 343 0832
Susan Finnegan	
Coordinator	
Cell Phone:	201 803 2300

