



SEAWORTHY

*The BoatU.S. Marine Insurance and Damage Avoidance Report**

A Few Tough Lessons From Ike

Damage Wasn't Just Along the Gulf Coast



The boats in Houston Yacht Club's inner harbor that survived Ike, like the one shown here, tended to have more and longer lines led to different pilings, which helped them to rise and fall with the massive surge.

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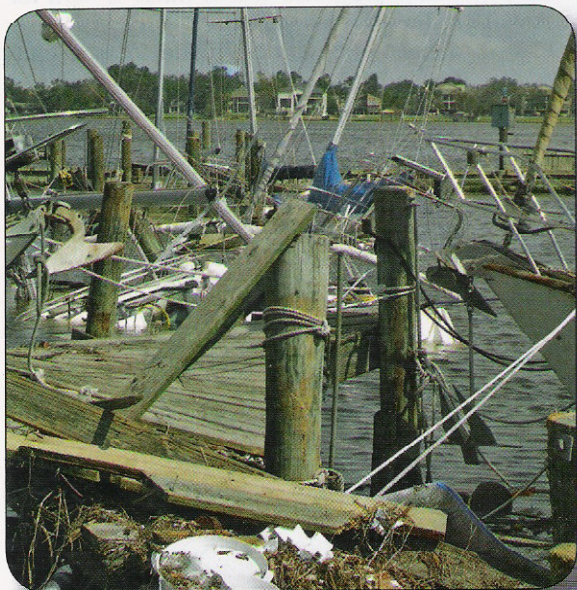
This past September, Hurricane Ike came blasting ashore, scoring a direct hit on Galveston and Houston, Texas. As you would expect when a strong Category Two storm comes ashore in a popular boating area, there were thousands of boats that were severely damaged or destroyed by the storm's high winds and especially by the surge, which reached almost 20 feet in some areas. Damage to boats wasn't only limit-

ed to Texas, however; BoatU.S. had claims for damaged or sunk boats from 17 states. BoatU.S. estimates that nearly 15,000 boats in Texas were affected by the storm, totaling \$175 million in damage. Another \$25 million in damage to recreational boats occurred in other states along the storm's path.

As soon as the airport reopened,
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the BoatU.S. Cat Team arrived and began the huge job of cleaning up the damaged boats. Below are a few examples with accompanying photos of some of Ike's more dramatic lessons.

Lesson 1: Watergate Yachting Center and Waterford Harbor Marina



Watergate Yachting Center



Waterford Harbor Marina

Watergate and Waterford Marinas are only a few hundred yards apart, so you might expect that the damage at both marinas would be comparable. Quite the contrary; while Watergate was heavily damaged, there was almost no damage at Waterford. There were two reasons

for the disparity: (1) Waterford is sheltered by land on all four sides while Watergate is only protected by a low seawall along part of its perimeter, and (2) Waterford had floating docks and 16-foot-tall pilings while the boats at Watergate were secured to fixed docks. Floating docks allow boats to float up and down with the surge, greatly reducing the strain on dock lines.

Lesson: When selecting a marina for your boat, storm-worthiness should be a major consideration. If your boat is currently at a marina that is only protected by a low seawall, it should be hauled out ashore or moved to a more secure location whenever there is a threat of a hurricane.

Lesson 2: Bayland Park Marina

While floating docks with tall pilings have proven to be one of the best places to secure your boat in a hurricane, one of the most vulnerable, paradoxically, has proven to be floating docks with shorter pilings. The latter are far less likely to accommodate the surge, and it's not uncommon for all of a marina's docks—with boats still attached—to be lifted above the pilings and carried away.

That's what happened at Bayland Park, where every boat at the marina wound up ashore after the docks were lifted over their pilings.

Lesson: Massive surges are the rule, not the exception, and boats should never



Bayland Park Marina's boats and docks ...



... were swept ashore by the surge.

be left at floating docks with shorter pilings when a storm is forecast to come ashore.

Lesson 3: Houston Yacht Club

After Hurricane Alicia wrecked boats in the Houston Yacht Club's outer harbor in 1983, club members wrote a plan they hoped would protect the docks and boats in future storms. It didn't. The plan called for removing boats in the outer harbor, which was done shortly before Ike came ashore. Boats in the inner harbor, which was protected on three sides by land and only one side by a seawall, were thought to be safer and most boats remained in their slips.

Unlike Alicia, however, Ike came from the east—the only quadrant that wasn't protected by land—and devastated many of the boats in the inner harbor. Compounding the problem, a large, heavy-displacement sailboat at the outer end of the dock (where larger boats are typically berthed) came loose and damaged many of the boats to leeward.

Lesson: Again, moving boats or storing them ashore is essential when a harbor is only protected by a low seawall. In this



Houston Yacht Club's inner harbor (left) and the lawn (right).



case, most boats had been well prepared with extra lines and chafe protection, but it's very difficult to overcome a combination of high winds, surge, and breaking waves. The latter is almost certain to destroy the docks and boats.

Lesson 4: Boats Ashore

As a general rule, boats stored ashore are less likely to be badly damaged in a hur-

ricane. Even when a boat is blown over, the damage is usually less than when a boat sinks at a dock—less physical damage, less pollution to clean up, and less money spent for salvage. One exception is boats stored ashore on low, narrow spits of land that are surrounded by water. The boat shown on page 10 became wedged between two houses when the surge

came across a narrow peninsula where it had been stored ashore and floated it downwind onto open water.

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Ike Damaged Boats in 17 States, Plus Canada

Most hurricanes begin breaking apart soon after they come ashore, wreaking havoc for maybe 50 to 100 miles inland before losing their fearsome punch. Not Ike. While the winds did diminish, a combination of persistently blustery winds and heavy rains continued to make Ike a threat all the way up into Canada. A

fourth of the claims filed with BoatU.S. as a result of Ike came from states other than Texas—Florida, Mississippi, Alabama, Louisiana, Arkansas, Missouri, Kentucky, Ohio, Maryland, Delaware, Pennsylvania, New York, Rhode Island, Illinois, Indiana and Michigan.



Portage, Indiana



Oswego, New York

Lesson: Using straps to secure boats to the ground has proven to reduce damage, even when a boat falls over. In this case, ground anchors would have helped keep it securely in place.

Photo: David Wiggins



Boats Ashore: Some were a massive salvage problem.

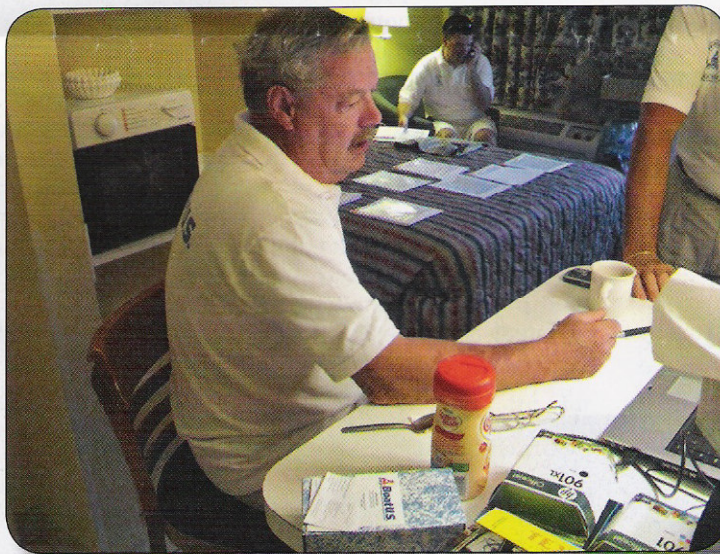
BoatU.S. CAT Team 2008: A Timeline

Saturday, September 13: Ike comes ashore in Galveston with 95-mph winds and gusts over 110 mph. The surge in some areas reaches an astounding 20 feet.

Sunday, September 14: President Bush declares 29 Texas counties and parts of Louisiana major disaster areas. Ike will prove to be the third costliest storm in U.S. history, behind only Hurricane Katrina and Hurricane Andrew.

Monday, September 15: After being closed for 36 hours, Houston's airport reopens and the first of the 12-member BoatU.S. CAT Team begin arriving. Five claims adjusters back at headquarters are assigned to work exclusively on settling Ike claims.

Tuesday, September 16: CAT Team begins the process of locating damaged boats, interviewing potential salvors, and scouting locations for a storage yard.



Mike McCook, shown here at the CAT Team's temporary headquarters in Houston, began working with the BoatU.S. CAT Team in Houston 25 years ago, after the area was devastated by Hurricane Alicia. In the background, Rick Wilson, assistant vice president for Claims who headed this year's CAT effort for BoatU.S., goes over some paperwork prior to giving the day's debriefing.

Friday, September 19: BoatU.S. agrees to terms and leases a four-acre storage yard in LaPorte.

Saturday, September 20: A giant tractor

trailer arrives with the CAT Team's "portable marina"—jack stands, blocks and tools—everything that will be needed to transform the vacant lot into a temporary boat storage facility.

Monday, September 22: Salvage operations are begun; the first of the 46 boats begins arriving at the storage yard. Salvage operations will continue from dawn to dark, seven days a week.

Friday, October 3: With salvage operations nearing completion, the first of the CAT Team members head for home.

Friday, October 10: The last boat to be salvaged, a 56-foot Altima (above), is taken to a repair yard in Seabrook.

Sunday, October 12: The last CAT Team member, David Wiggins, leaves Houston. Less than a month after the CAT Team arrived, the job is completed. 