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To Survive Future Storms, New Orleans Should Look to its Past

The disruption caused by Hurricane Ida has forced many residents to abandon the city for more than a week. A network of local storm shelters could be a safer alternative.

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Cities in hurricane zones face vexing questions. How many strikes can they withstand and still rebound? Relatedly, how many evacuations can they endure and still remain viable?

I'll leave that first question for others, but from my perch in sweaty post-Ida New Orleans, where much of the city remains in the dark more than a week after the storm (I managed to find electrical power at my Tulane School of Architecture office.), I suspect the answer to the second question is, *only so many*.

If evacuation becomes a lifestyle requirement, the annual threat of total life interruption will scare away many current and would-be residents, regardless of storm outcomes. Young families, educated youth, workers, new investments, relocating companies — in a word, all that constitutes *opportunity* — will look elsewhere. New Orleans might live on as a destination for tourists, but it would cease to be a living city.

Is there an alternative to evacuation? New Orleans history offers some insights.

Ask folks of a certain age about hurricanes past, and you will likely hear stories of huddling with neighbors in local public buildings. Few evacuated, and most couldn't anyway.

During the Great Storm of 1915, for example, thousands of occupants of small wooden houses took shelter in big sturdy brick neighborhood public schools, many of which still stand. Evacuation wasn't an option. Coastal residents strove to get *into* New Orleans, knowing it was the safest alternative. Likewise for the [Hurricane of 1947](#), [Hurricane Flossy](#) in 1956, and [Hurricane Betsy](#) in 1965: With more than a half-million residents and most households still without private cars, a mass exodus was neither possible nor even envisioned. Instead, New Orleanians walked to designated public buildings, which doubled as aid and distribution centers. When the threat passed, they walked home, secured their properties, reopened their businesses and schools, and got back to living.

The ad-hoc local-sheltering tradition was imperfect, and I don't mean to idealize it. But it had key benefits, and chief among them was that it enabled a speedy return to normalcy, without the logistical mayhem of costly car-based evacuations.

Local sheltering also adeptly handled the challenge of "tough call storms" — those weaker vortexes that *could* present a threat, or stronger ones that *might* veer away — because it maximized the window for a stay-at-home-versus-leave decision and minimized the costs of the latter. If you decide to leave at the last minute, you just walk your family down to junior's school, bedrolls and board games in hand.

So what became of the local-sheltering tradition?

Following Hurricane Camille in 1969, a lull ensued in tropical activity, and only a few minor storms struck in subsequent decades. By the time things heated up again in the mid-1990s, conditions had changed.

Within the metropolis, thousands had resettled in low-lying suburbs, increasing human exposure to hurricane hazard, while leaving the central city increasingly impoverished, troubled and vulnerable. Interstates now crisscrossed the region, and a majority of households owned vehicles. (But not all: Pre-Katrina, more than a third of Black households in Orleans Parish did [not own a car](#), according to the 2000 census.) Those with resources were now more inclined to hit the road and evade storms as individualized household units, rather than huddle with “strangers” in gloomy public buildings.

Meanwhile, vital city infrastructure had aged, and an erratic hodgepodge of under-engineered levees made the metro area—which since around 1900 had subsided below sea level, thanks to mechanized drainage—that much riskier.

Beyond the metropolis, coastal wetlands had eroded, sea levels had risen, and a labyrinth of navigation channels and oil and gas extraction canals had been scoured through marshes, inviting storm surge inland. No longer was New Orleans a refuge for coastal denizens. It wasn’t even safe for residents. In response, emergency planners adopted a new strategy: evacuation.

Hurricane Georges in 1998 was the first big test for evacuation, and it showed much more planning was needed for it to work. The traffic jams were horrendous, and when the storm veered eastward to Mississippi, the whole costly interruption left a foul taste. That’s a major problem with evacuation: It doesn’t handle false positives well.

I say this not to fault the leaders who make these tough decisions, but to emphasize that the total life interruption attached to a false-positive evacuation—including the dangers of driving hundreds of miles in an overloaded clunker searching for gasoline and hotels—is not a trivial externality. It’s a weighty variable in long-term metropolitan viability.

After Georges, planners doubled down on the evacuation strategy, devising a complex “contraflow” system to open inbound interstate lanes to outbound traffic. But as Hurricane Ivan threatened in 2004, traffic jams again ensued, and the storm again veered eastward, this time to Alabama. Another false positive.

And what of households without cars? “Shelters of last resort” were made available, but they were a reluctant afterthought, with more effort going to dissuading their use than keeping users safe and supplied.

Then Katrina approached in 2005. With more than two days of warning time, a mandatory evacuation was called, with contraflow and recent learnings all in place. The exodus went reasonably well, and the decision to evacuate — this time a true positive — saved many lives, as federal levee failures led to catastrophic flooding. But the shelter system was an utter failure, as thousands of people found themselves trapped at the Superdome and Convention Center without adequate supplies. What resulted is a [dark chapter in recent American history](#).

The Katrina catastrophe valorized the evacuation strategy and maligned any notion of local sheltering. In its wake, New Orleans developed the [City-Assisted Evacuation Plan](#), which uses a fleet of buses and a network of pickup locations called evacuspots to shuttle those without vehicles to statewide shelters during a mandatory evacuation.

But consider the shortcomings of (most) evacuations. During the exodus from Houston for Hurricane Rita in 2005, [more deaths occurred on the road](#) than by wind, rain, or surge. Three years later, the mandatory evacuation of New Orleans ahead of Hurricane Gustav — a wise move given tenuous post-Katrina levees — nevertheless caused weeks of disruption.

Then came Hurricane Isaac in 2012, Zeta in 2020, and now Ida in 2021. All three seemed not enough of a threat to warrant mandatory evacuation, but enough of a blow to down power lines and leave hundreds of thousands stranded at home without electricity in subtropical conditions. Lack of power often leads to weak or no water pressure and an

inability to extinguish fires. This is happening in suburban Jefferson Parish even as I write, as [thousands lack utilities and have been told to evacuate](#).

Evacuation works when it's an easy call, like Katrina or Gustav. But for those more-frequent tough calls, like Georges, Ivan, Isaac and Ida, as well as Isidore and Lily in 2002 and Cindy in 2005, we need an alternative.

That alternative, I believe, is an updated version of the historical local-shelter approach — only now, instead of old schools, we would build specially designed local sheltering centers, raised well above base flood elevation, positioned strategically, with their own generators and supply docks for intermodal deliveries. Inside would be air-conditioned communal spaces, semi-private sleeping quarters, food, water, sanitation, power, communications, basic medical facilities and security.

Like the best of multi-use infrastructure, these facilities could serve as civic gathering spaces from autumn through spring, transforming into sheltering bunkers during storm season. They should be beautiful, useful, friendly and iconic; they should not be “last resorts.”

Sheltering centers would not have to be built everywhere. The city should start in the neighborhoods that want or need them the most, build a pilot and proceed incrementally. Some can be co-located with hospitals like the University Medical Center or military facilities like Federal City or the [F. Edward Hebert Defense Complex](#), an empty compound perfectly situated on high ground in the Ninth Ward, with access by road, rail, river and helicopter.

How might a local sheltering center work during a tough-call storm like Ida? Let folks evacuate if they want (about half will), and open the fully operational center to residents who live within a certain predetermined perimeter (most will stay home). After the storm — and amid the likely blackouts — allow users to come and go as they please, to check on their properties, clean up and reopen businesses, knowing they'll have basic services for the week ahead. As utilities are restored, the centers can be used to lodge out-of-town recovery workers, but they should not be perceived as long-term temporary housing.

With a changing climate imbuing unpredictability into severe weather — look at how Ida intensified as it approached Louisiana, and ended up releasing [devastating floods](#) in the New York City area — communities need a wider range of alternatives to the go/no-go evacuation decision. Local sheltering centers can provide a third option, reducing the stakes of a false positive while keeping the evacuation strategy in place.

I am not one for pie-in-the-sky “visions,” and I acknowledge limited budgets and other infrastructure needs. But tally up the true costs of evacuation, consider the certainty of more severe weather, and factor in that vexing viability question each time we pull the evacuation trigger. A return to local sheltering may be the safer *and* cheaper alternative to a permanent evacuation lifestyle.

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