

Hawaii News

25 years after Iniki, state's emergency shelters remain inadequate

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Dr. Richard Guttler gives a "thumbs up" despite the Hurricane Iniki damage to his home. Next to him is his daughter Jenn. This is the view up from Hoona Road in Poipu.

Twenty-five years after Hurricane Iniki pummeled Kauai, Hawaii has made substantial progress in some ways to prepare for the next major hurricane. But the state remains

significantly ill-prepared in other areas, including not having adequate facilities to house everyone who would likely seek public shelter from an Iniki-like storm.

Since the Category 4 hurricane devastated the Garden Isle with sustained winds of 140 mph and gusts of 175 mph on Sept. 11, 1992, the emergency shelter space around the state has not kept pace with resident and visitor growth and heightened safety standards, widening an already serious gap, experts say.

Extrapolating from findings of a 2009 behavioral study, the most recent available, Hawaii Emergency Management Agency officials say that the state potentially could be short more than 220,000 spaces if roughly a third of the population were to seek shelter outside their homes as the study indicated.

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And those who make it into public shelters would be in structures vulnerable to an Iniki-like storm.

Almost all of Hawaii's shelters, which are mostly in schools, are not designed or hardened for winds beyond a minor hurricane or tropical storm, according to the emergency management agency. And many, because of age and cost factors, cannot be hardened beyond a Category 1 storm (winds of 74 to 95 mph).

"None of our public buildings are in good shape to withstand a major storm," said Jennifer Walter, the agency's preparedness branch chief.

Of the 40-plus buildings that the state has retrofitted since 2006 or determined no retrofitting was needed after doing structural assessments, only one is rated to withstand Category 4 winds of 130 to 156 mph, according to Hawaii Emergency data. One building is rated to withstand a Category 3 storm (111-129 mph), and two have Category 2 (96-110 mph) ratings.

The remaining 40 buildings are rated to withstand only Category 1 winds.

Sense of complacency

Despite greater public awareness about the potential for storm destruction, underscored by the recent devastation caused by Hurricanes Harvey in Texas and Irma in the Caribbean and Florida, the shortage of adequate shelter space in Hawaii reflects what some experts say is a long-standing reluctance to take threats from natural disasters seriously enough. That reluctance has contributed to worrisome gaps in the state's overall preparedness, they say.

"Because we haven't had a big hurricane in Hawaii since Iniki, we've been lulled into a sense of complacency," said University of Hawaii professor Karl Kim, executive director of the National Disaster Preparedness Training Center. "But as Harvey in Houston and now Irma demonstrate, we really aren't prepared for the big events."

That's partly why emergency management officials here encourage residents to have a 14-day disaster supply kit on hand, discuss evacuation plans with family members well before the high winds arrive, and take other precautions that will better enable people to weather the storm's impact from their home or workplace — if it's safe to stay there.

"Public shelter is the last, last resort," said Vern Miyagi, administrator for the state agency. "The focus is to shelter in place."

Public shelters are considered safer options for people in inundation zones or in older homes with wood-frame or single-wall construction.

A major storm likely would cause widespread damage that would disrupt everything from the state's vital supply pipeline at Honolulu Harbor to the passenger and cargo traffic routed through the state's airports each day.

Depending on the severity of the storm, those facilities and other aspects of daily life could take weeks, months or longer to return to normalcy.

Progress elsewhere

While state officials and others acknowledge that the shelter system has serious problems, they have lauded progress made in other areas over the past 25 years. That progress makes Hawaii better prepared to handle a major storm, according to Miyagi and others.

Communication, for instance, is significantly improved since the Iniki days, when then-Kauai Mayor JoAnn Yukimura had to relay messages from the county building to water department officials a few blocks away using bicyclists.

Email and the internet were in their early stages back then, and cellphones were not prevalent like they are today, giving emergency officials the ability to send instant alerts — if the cellphone towers are unaffected — and voice and text warnings.

Storm forecasting is much more accurate thanks to advances in technology and science, experts added, and coordination among county, state and federal agencies —

vital in recovery efforts — also is much improved.

“A lot of it is from lessons learned from previous disasters,” said Elton Ushio, administrator of Kauai’s Emergency Management Agency, which has doubled its full-time staff to six since Iniki and now is housed in a modern operations center encased in concrete. Twenty-five years ago, the office was in the basement of the county’s historic building.

Multipronged approach

Iniki was considered the worst natural disaster in Hawaii’s recorded history.

The destruction was so widespread that more than 60 percent of Kauai’s 20,000 homes were damaged or destroyed, 7,000 people were left homeless and 6,000 power poles were toppled. Damage was estimated at \$3 billion (in 2017 dollars). Iniki killed two residents.

Kauai had about 16 shelters back then, according to Ushio, compared with 14 today — an indication of the challenges Hawaii faces in trying to provide adequate emergency space.

Some buildings around the state that were designated as shelters 25 years ago have been removed from the list because they do not meet minimum safety standards, which have increased since Iniki.

Hawaii has 237 shelter facilities statewide, enough space to house nearly 278,000 people, according to the state. The shelters are run by the counties, which decide which ones to open when a storm is approaching.

Since 2006, about \$11.5 million in state funding has been earmarked to retrofit shelters, and another \$3 million is expected in each of the next two years, according to state officials. But those amounts are far from adequate to tackle the overall need for more and better facilities, they say. The state recently finished retrofitting four school buildings at an average cost of about \$300,000 per building.

“We’re not going to retrofit our way out of this problem,” Walter said.

The state’s emergency management officials instead are pursuing a multipronged approach.

While continuing to seek money for retrofitting, they are pushing to strengthen Hawaii’s building codes — which are several iterations behind nationally recommended models — so homes are built sturdier and more rigorous shelter requirements are incorporated into new school construction.

They also are reaching out to businesses to encourage more to designate their workplaces as shelters for employees.

Tougher building codes

State officials consider Florida a good model for turning things around.

The same year Iniki hit Hawaii, Florida was struck by Hurricane Andrew, a Category 5 storm.

Since then, Florida has erased its shelter space deficit and has substantially improved its building codes, according to Miyagi and Walter.

After Iniki, the city strengthened its building codes in a variety of ways, including requiring new single-family homes to be secured with hurricane straps running from the roof to its foundation, according to Tim Hiu, deputy director of the city Department of Planning and Permitting. Before Iniki, the code required only that the roof be tied down to the walls.

The city also has strengthened wind design criteria, according to Hiu.

While such changes are positive, the key to improving Hawaii's storm readiness is to persuade residents to be adequately prepared, officials say.

"Emergency management is not just a government responsibility," Walter said.

Kim, the UH professor, said in an email that Hawaii's isolation makes prospects for quick restoration from a major storm quite dim and called for more investment in recovery planning. He also cited the need to make infrastructure systems and communities not just more resilient but more sustainable.

"We need to wake up to these threats and hazards," Kim said.

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