Are We Ready for the Next Big One?
Texas Gulf Coast Legislators Learn from Cuba’s Hurricane Preparedness Model

By Elizabeth Newhouse and Wayne Smith

July 2010

INTRODUCTION

With up to seven major storms predicted, the 2010 hurricane season in the Caribbean and United States could be one of the most active on record. Warmer water and lower atmospheric pressure in the tropical Atlantic make this year’s conditions comparable to the most active seasons since 1995, the year marking a notable upswing in the incidence and strength of the storms. “2010 may be remembered as the hurricane season from Hades,” warns Accu.weather.com meteorologist Joe Bastardi. Says NOAA chief Jane Lubchenco, “We urge everyone to be prepared.”

Concern about the catastrophic effect of a hurricane on the giant oil spill in the Gulf of Mexico and on earthquake-shattered Haiti added a sense of urgency to the Center for International Policy’s latest trip to Cuba. In May, Wayne Smith led a delegation of four Texas Gulf Coast state legislators, whose districts include Houston, Galveston, and Brownsville—some of the state’s most hurricane-vulnerable—to examine Cuba’s hurricane preparedness and discuss ways to cooperate. Texas has an excellent early-warning system and a new and sophisticated Hurricane Response Plan. Compared to Cuba’s plan, the Texan plan focuses more on managing evacuations and their aftermath, and less on working from the ground up to prepare communities.

The delegation was accompanied by an observer, Admiral Alberto Mariano Vazquez de la Cerda (Mexican Navy, retired).

As on earlier CIP-sponsored trips, discussions with Cuban officials about the country’s early warning system, civil defense and disaster medicine highlighted the detailed planning at all levels of Cuban society that go into preparing for the giant storms. Meetings with Cuba’s deputy foreign minister and the chief of the U.S. Interests Section explored the possibilities for cooperation on this and other issues of interest to both countries.

EARLY WARNING

In the town of Casablanca on a hill overlooking Havana harbor sits Cuba’s national meteorological institute, its radar housed in a 1908 observatory that once held a telescope. Dr. Jose Rubiera, chief of Cuba’s hurricane early warning system, opened his remarks by describing how Cuba arrived at its present system—the hard way. Decades of devastating storms and loss of life culminated in Hurricane Flora in 1963, which provided the immediate impetus for action. Over 72 hours, a year’s worth of rain fell, and 1,200 people died from flooding. Today, there are national meteorological centers in all 14 Cuban prov-
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Dr. Rubiera issues his first hurricane warnings at least five days before landfall; as the storm builds, increasingly urgent alerts blanket airwaves reaching more than 99 percent of the country.

The delegation on the veranda of the U.S. residence with the chief of the U.S. Interests Section, Jonathan Farrar.

Dr. Rubiera compared Cuban hurricane deaths with those of the Eastern seaboard and Gulf Coast in the United States over the past 14 years. Cuba’s casualties are much lower, 36 deaths compared to more than 1800 fatalities from Hurricane Katrina alone. State Senator Mario Gallegos pointed out that Texas also has an excellent early warning system, one of the best in the United States, and Senator Eddie Lucio presented Rubiera with a copy of the Brownsville Hurricane Preparedness manual. State Representative Tommy Merritt, chairman of the Texas Public Safety Committee of the Texas House of Representaitves that oversees hurricane response, described a new technology developed by engineers at the University of Texas and other universities to accurately model and predict storm surges at least two hours ahead of National Oceanic and Atmospheric Administration (NOAA). Since this same technology can also predict the coastal impact of the Gulf oil spill, BP has been urged to make use of it, he said.

**Raising Awareness to Save Lives**

The delegation later met with Dr. Guillermo Mesa Ridel, director of CLAMED, the Latin America Center for Disaster Medicine, in his office in suburban Miramar. Under the Ministry of Public Health and part of the national civil defense system, Dr. Mesa’s center was established in 1996 to plan and organize the medical response to hurricanes.
and other disasters—such as earthquakes, fires and epidemics—to identify risks, and to pinpoint vulnerabilities. CLAMED’s small staff coordinates with all medical and paramedical institutions in the country. Coincidentally, the CIP visit came at the time of Cuba’s annual hurricane preparedness and training weekend, a virtual dress rehearsal, this year called Meteor10. In Dr. Mesa’s area of responsibility, medical disasters were simulated across the country and medical brigades drilled. All civil defense plans were updated.

As a hurricane approaches, the civil defense system and CLAMED respond immediately to Dr. Rubiera’s warnings. At 72 hours everyone up and down the chain begins moving into high alert: Evacuation centers are prepared, non-critical patients sent home to free up hospital beds, and medical brigades put on stand-by; at 24 hours evacuations begin. Each level of government and all agencies and organizations have their own customized plans, coordinating with other government levels to make best use of the scarce resources. “Everything is aimed at saving human lives,” Dr. Mesa said. He pointed out that Cuba has a great deal of experience in disaster medicine: Over the past five decades, beginning in 1960 with an earthquake in Chile, it has sent over 150,000 medical workers abroad in response to natural disasters. Today, some 350 Cuban doctors are in Haiti, working to rebuild the health care system after the earthquake.

Dr. Mesa is trying to incorporate basic training in disaster medicine in all areas of medical education and also into society; PhDs, masters degrees and shorter courses are available, as well as medical degrees. The goal is to raise awareness so that all communities know how to manage disasters, whatever their cause. “How much can be done depends on how much we can get all the players involved,” noted Mesa. He conceded that disaster response is easier to manage in a country like Cuba with a centralized government, political muscle, and the opportunity to use all available resources—and without the competing interests and insurance claims of capitalist countries.

Mesa said he is committed to becoming part of the international community working to strengthen global information- and technology-sharing in this field.

**Medical Training for Foreigners**

On the coast west of Havana in a large white building, formerly Cuba’s naval academy, sits the Latin American Medical School. Founded in 1998 in response to devastating hurricanes George and Mitch, the school was the brainchild of Fidel Castro as a place to train doctors from poor areas most vulnerable to hurricanes, especially in Latin America. Over the past decade, explained Dr. Juan Carrizo Estevez, the school’s president, it has grown enormously. Today, 10,000 students are enrolled from 28 countries, with some 1,500 graduating each year. Some stay on to specialize; others return to their own countries to continue studying. All commit to serving the poor at home for at least two years.

The students enter mostly as teenagers with a wide variety of educational backgrounds, but usually no more than a high school degree. The school bases admissions on an assessment of an applicant’s ability to handle the work, and on character and motivation. Fostering human values—creating sensitivity to humanity’s problems—is as important to the school as medical studies, though academic standards are rigorous. With tuition, room and board covered by the Cuban government, the school sees itself as an opportunity for youth who would otherwise have no access to medical training. The students spend a semester on pre-med courses and two years in medical studies before dispersing to hospitals around the country for four additional years of training alongside Cuban medical students. After that they take a national exam to receive their MD.

During the time on site, students must remain on campus Monday to Friday, adapting to the demanding requirements, learning to study, and, in many cases, growing up. Only about 15 percent fail or drop out.
“Most of the students are very young when they arrive, and we have to provide personalized attention,” said Dr. Carrizo. “But it pays off.”

He saw proof of this after the earthquake in Haiti. It was the first time the graduates were called on as a group to respond to a disaster of such magnitude. More than 250 flew immediately to the devastated island. “I have seen our graduates working in Amazon jungles and remote mountain villages of Latin America,” Dr. Carrizo said. “But the professionalism with which they handled themselves amid this enormous human tragedy was very exceptional.”

About 50 students from the United States are currently studying at the school, which U.S. regulations permit as long as a student has a university degree and matriculates full-time; many U.S. students also have graduate degrees, making their average age 25, well above that of the other students. Another 100 Americans are further along in the system, completing their training in Cuban hospitals. On returning to the United States for their residencies, they must pass medical boards like graduates from any foreign medical school. California is the only state to have formally certified the school. The CIP group met three of the U.S. students currently at the school, each of whom praised the experience and the quality of their training. “We would never have been able to afford medical school in the U.S.,” said Damian, a Dominican-American from New Brunswick, New Jersey.

### Civil Defense on the Ground

A presentation in Playa, a suburb east of Havana, gave the CIP delegation an excellent window to how the Cuban civil defense system actually works on the ground. Moderated by Francisco Sánchez Perdomo, the secretary of the provincial assembly, which serves as the governing body of the City of Havana (pop. 2.2 million), the panel also included the mayor of Playa municipality (pop. 177,773) and the head of the city council of Cubanacán (pop. 13,974), a district of the municipality. With the provincial governor at its head, each political official functions as the civil defense chief for his entity and works with other officials on the rungs above and below him to protect the entire Cuban population.

Over the weekend in Playa, Sánchez said, as in all 15 municipalities in the province of Havana (and all municipalities throughout the country), drills, practices, and risk assessments took place as part of the Meteor10 exercise, not just against hurricanes, but also addressing other calamitous events like earthquakes and tsunamis. Officials updated their civil defense plans, engineers examined structures for sturdiness and rivers for flooding potential, and residents cleaned drains and trimmed dead branches from trees. Since Playa includes 12.5 kilometers of seacoast, much attention goes into shoring up the coastline against tidal surges and flooding.

Adding to its responsibility, the municipality includes many diplomats and other foreign residents, as well as a number of scientific, medical, and educational centers.

Despite careful preparations, as a hurricane approaches, evacuations are often necessary. With the accuracy of forecasting and risk mapping, there is time to get ready, Playa’s new young mayor said. Playa knows where its vulnerable residents live and where they will go if necessary—to family or friends’ houses or to one of many temporary evacuation centers in factories, schools and government buildings.

The goal is to not be caught by surprise. To guard against looting, the government stores appliances and other valuable goods in warehouses or elsewhere. The evacuation centers provide meals, health care and recreation, and families remain there until a civil engineer examines their homes and gives them the all clear. About three percent of homes are uninhabitable after a strong hurricane and are eventually rebuilt or replaced by the government. (Many Cuban houses have yet to be rebuilt from the powerful 2008 hurricanes, and their owners remain to this day in shelters).
Little Cubanacán, with two kilometers of coastline, covers 20 percent of the area of Playa and nine percent of the population. Its civil defense chief (the head of the city council) displayed detailed charts showing how many residents would require evacuation, according to a hurricane’s strength, and where they would go. For example, flooding from a strong tropical rainstorm could mean moving 2,965 people, while a category I or II hurricane would require evacuating 8,679 people, about half the population.

The proof of how well this level of preparation works in practice—both here and throughout Cuba—came in 2008, when three successive major hurricanes caused $10 billion in damage but only seven deaths.

**PATHS TO IMPROVED U.S.-CUBAN RELATIONS?**

On the final afternoon of the visit, Dagoberto Rodríguez Barrera, Cuba’s deputy foreign minister for the United States and Canada, welcomed the CIP delegation to the ministry in Vedado. As chief of the Cuban Interests Section in Washington, D.C. from 2001 to 2007 and previously head of the Foreign Ministry’s department on North America, he is an expert on U.S.-Cuban relations. He spoke about expectations for change with President Barack Obama’s election and praised the liberalization in Cuban-American visits as a positive step that allowed more than 200,000 to travel to the island last year, the most ever. However, “On enforcement of the blockade, the Obama administration has been more rigorous than Bush,” Rodríguez asserted, “in levying higher fines and persecuting banks for non-compliance.” In general, the economic relationship has not improved; quite the opposite has taken place.

The resumption of migration talks last July, with a third round held June 18, 2010, has also been a good move, said Rodríguez. These have given Cuba the opportunity to present an agenda for serious communication on issues that must be addressed if the relationship is to change. These include the following: lifting the embargo; lessening the policy of hostility; stopping payments (i.e., to dissidents in Cuba) to promote regime change; eliminating radio and TV Martí; releasing the Cuban Five from prison; and compensating for human damages.

“I understand this is a difficult agenda,” Rodríguez said. “The United States has to take unilateral steps; Cuba can’t negotiate them as they are not policies we instigated toward the U.S.” Until these issues are addressed, there cannot be normal relations between the two countries, Rodríguez insisted, adding that in his view, using food, medicine and human knowledge as political weapons is not legally or morally sustainable.

However, there is also an agenda of common interests, noted Rodríguez, where reaching an agreement should be possible. This agenda includes narcotrafficking; terrorism; postal services; the environment; and cultural, scientific and academic exchanges. So far, there has been little response from the United States on efforts to discuss these issues—and no meaningful steps that would signal a change in relationship. “What is required are honest, transparent talks that recognize each government’s right to be as it wishes.” The goal should be to discuss all topics, even internal ones, in an atmosphere respectful of sovereignty and international law.

On the subject of travel, Rodríguez urged that all Americans be allowed to travel freely to Cuba. “Who can best carry the values of the United States?” he asked. Instead of clandestinely spending $20 million in Cuba on regime change, why not, for example, support relationships between U.S. and Cuban entrepreneurs?

“Having Americans travelling to Cuba in numbers would be challenging for us,” conceded Rodríguez, “but we want to take it on. We think the results would benefit both sides. With normal travel and communi-
Speaking for the Texas legislators, State Senator Lucio of Brownsville expressed satisfaction with what they learned about Cuba’s hurricane preparedness system and the hope that they could work with Cuban officials on natural disasters. They would also like to see better relations with Cuba and more openness to trade, he said, and will communicate these views to the state’s congressional delegation in Washington. After all, Houston is the number one port for exports to Cuba from the United States. Deputy Minister Rodríguez stressed that expanded trade would serve the interests of both sides. He noted that it would be “more rational” for Cuba to buy from the United States rather than from Asia, and for Texas oil companies, rather than Brazilian and Chinese ones, to drill in Cuban waters.

Representative Eiland, the Speaker Pro Tempore of the Texas House, lamented the fact that declining markets have forced rice growers in Texas to turn to manufacturing grass turf, while Cuba buys its rice from Vietnam and China.

“Having to pay cash in advance [as the United States demands] is very difficult for us. France, Canada, and Brazil give good credit, so why buy from the United States?”

-Dagoberto Rodríguez Barrera

Rodríguez expressed great concern about the oil spill in the Gulf of Mexico and said Cuba was anxiously awaiting more information and would be happy to cooperate in any way. A propos, Cuba last year proposed that the United States and Cuba sign a statement of principle to protect the Gulf of Mexico, enabling scientists of both countries to research jointly and organize exchanges and conferences. “This requires a joint effort, and it can’t wait 10 years,” he said.

State Rep. Tommy Merritt, the Public Safety Committee chairman, agreed that now more than ever, with a man-made natural disaster brewing and other potential oil drilling hazards, Cuba and the United States must join forces to protect the Gulf. He pointed out that this may be an important opportunity for Texas to strengthen its ties with Cuba, in that Texas—uniquely, as a condition for statehood—controls its own offshore waters.

**AN OPENING FOR TRAVEL**

The final event of the trip was a meeting with Jonathan D. Farrar, chief of the U.S. Interests Section, and members of his staff, at Farrar’s residence in Cubanacán. Farrar sees the beginnings of a definite liberalization in the travel policy. “The question is,” he asked, “how fast will the administration pursue it?”
So far this year there has been a 130 percent increase over last year in Americans visiting Cuba, and charter flights from Miami now land at many Cuban cities. The U.S. Interests Section granted 21,000 visas for Cubans to visit the United States last year, up from 9,000 in 2008. One difficulty is that under Cuban regulation, only 51 Americans can work at the Interests Section, limiting the staff for processing applications. As a result, those seeking appointments for visa interviews must now wait until 2013.

Also, since 2009, many more academics and artists are traveling to the United States for conferences and performances, and there has been progress for Cubans wanting to emigrate, with numbers increasing to 14,000 in 2009. Illegal emigration is down 40 percent. In addition, 4,700 political and religious refugees were approved for admittance to the United States last year.

Farrar confirmed that the Cubans at the Interests Section in Washington are being kept apprised of the Gulf oil spill. The U.S. Interests Section has held talks with the Cubans about their own plans for oil exploration. Repsol of Spain has already contracted for a rig to drill in Cuban waters. It would be very advisable for the United States to license underwater technology for oil clean-up.

State Senator Lucio said he wanted to see the embargo lifted as there is a need for increased trade. The United States is still the largest exporter of farm products to Cuba, replied Farrar. “We can’t offer credit, but now payment is required when the Cubans receive the goods, not before they leave a U.S. port, as before.” However, this change was part of an appropriations bill that expires in September.

The U.S. visa modifications described by Farrar reflect the Obama administration’s go-slow, under-the-radar approach to changing Cuba policy. However, this year a new imperative exists: We are not only confronting a major environmental catastrophe in the Gulf of Mexico with the oil spill, which could very well impact Cuba, but also the prospect of severe hurricanes that would greatly exacerbate the crisis. If there was ever a time to put politics aside and—by whatever means possible—work actively with Cuba to protect the Gulf and cooperate on hurricane tracking and response, this would surely be it.

### Delegation Participants

1. Rep. Craig Eiland, Democratic speaker pro tempore of the Texas House of Representatives, represents district 23, which includes Galveston.
2. Sen. Mario Gallegos, Jr., a Democratic member of the Texas Senate, represents district 6, which serves a portion of Harris County (Houston).
3. Sen. Eddie Lucio Jr., a Democratic member of the Texas Senate, represents the 27th district (Brownsville).
4. Rep. Tommy Merritt, Republican of Kilgore, represents the 7th district in the Texas House of Representatives, which comprises all of Gregg County and part of Smith County.
5. Admiral Alberto Mariano Vazquez de la Cerda, Mexican Navy (Retired), is a member of the Cuba-Mexico-U.S. Coalition to Protect the Gulf of Mexico.
6. Nick Kralj is a member of the Galveston County Beach Erosion Task Force. A fixture in Texas politics, Nick has participated in delegations to Cuba to promote cooperation on hurricane preparedness and the environment.
7. Eliott Kralj, a member of the Galveston County Beach Erosion Task Force, has also worked to advance U.S.-Cuba cooperation.
8. Dr. Wayne Smith, senior fellow at the Center for International Policy and director of the Cuba Program. One of the foremost experts on U.S.-Cuba relations, Dr. Smith has led many delegations to Cuba to promote engagement on hurricanes and other issues of interest to both countries.
10. Amanda Sewell, CIP intern

The Center for International Policy wishes to express its appreciation to the Ford Foundation, the Christopher Reynolds Foundation and Gulfstream Air Charter for their generous support, without which neither the fact-finding trip to Cuba nor this report would have been possible.

_A Publication of the Center for International Policy_
IPR · Cuba

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A Publication of the Center for International Policy

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ISSN 0738-6508