

WSVI-WZVI-Quarterly Issues and Problems Report From October 1 2008-December 31 2008

Actual Impact of the 2008 Virgin Islands Hurricane season

The 2008 Atlantic hurricane season was a very active hurricane season with sixteen named storms formed, including eight that became hurricanes and five that became major hurricanes. The season officially started on June 1 and ended on November 30. These dates conventionally delimit the period of each year when most tropical cyclones form in the Atlantic basin. However, the formation of Tropical Storm Arthur caused the season to start two days early.

One very unusual feat was a streak of tropical cyclones affecting land. All but one system impacted land in 2008. The unprecedented number of storms with impact led to one of the deadliest and destructive seasons in the history of the Atlantic basin, especially with Hurricane Ike, as its overall damages made it the third costliest hurricane in the Atlantic.

Environment

According to Island Resources Foundation, "The Virgin Islands are among the most vulnerable societies in the world, with major risks including hurricanes, drought, earthquake, tsunami and manmade disasters." Like all other Caribbean islands, the biggest natural hazard threat to the Virgin Islands is hurricanes. The Virgin Islands are situated in Hurricane Alley, which makes them susceptible to the impact of these storms. The hurricane season of the Virgin Islands runs from June to November. Significant hurricanes, which have caused substantial damage over the last 25 years, include Hurricane Hugo (1989) and Hurricane Marilyn (1995).

Natural Disasters

Earthquakes are a regular occurrence in the U.S. Virgin Islands but earthquakes are generally too small to be noticed and will not cause tsunamis. The Caribbean is one of the smaller surface plates of the earth and earthquakes occur all around its periphery, and volcanoes erupt on its eastern and western sides. The Puerto Rico/Virgin Islands region is located at the northeastern corner of the Caribbean plate where motions are complex. This plate remains at a fixed spot relative to the deep Earth, while the North American plate, which includes the continent of North America and the western North Atlantic Ocean basin, is being shoved westward.

Climate Change

The U.S. Virgin Islands have a tropical arid climate, which is tempered by gentle trade winds with low humidity and little pollen. They have temperature

averages of 78° F in the summer and 71° F in the winter, but Charlotte Amalie has daily maximum temperatures around 91° F in the summer and 86° F in the winter. Periods of human suffering in the U.S. Virgin Islands have been attributed to excessive or insufficient rainfall (Zack and Larsen, 1994). The wettest months fall between September to November and the driest months are February and March. The average rainfall total is between 45 to 50 inches per year. Rainfall, however, is very erratic and will vary widely from year to year. The size of each island influences the degree with which they collect and retain the precipitation for fresh water. Saint Croix, Saint Thomas, and Saint John are smaller in size and have a lower peak elevation points than other islands of the Lesser Antilles. This makes them receive and retain less annual precipitation for water supply.

Droughts in the U.S. Virgin Islands occur frequently and tend to be severe due to a lack of perennial streams and a limited ground water supplier (Zack and Larsen, 1994). Depletion in rainfall impacts the territory's agriculture and requires that residents ration the water supplies (Zack and Larsen, 1994). Also, there are many residential homes throughout the territory, which have their own cisterns or wells. Thirteen percent of fresh water is obtained from rainfall corralled by rooftop catchments and twenty-two percent of the freshwater supply is obtained from ground water (Zack and Larsen, 1994). With periods of droughts being to frequent, alternative means for generating fresh water is needed. The bulk of freshwater supplies (65%) in the U.S. Virgin Islands are supplied by energy-consumptive desalinated seawater. This costs \$4.20 per liter and is the most expensive publicly supplied water in the entire United States (Zack and Larsen, 1994). In addition, the importing of fossil fuels for use in the desalinating process adds to the expenses incurred by the process (Zack and Larsen, 1994). The Virgin Islands Water and Power Authority (WAPA), which was established in 1965, operates several desalination plants. There is one plant located on Saint Croix, Saint Thomas, and Saint John.

Flooding

Flooding is another type of hazard faced by the island territory. Insufficient drainage systems throughout the islands have contributed to continued problems of flooding. According to Island Resources Foundation. One of the more serious issues faced by the Virgin Islands is flooding. The problems brought about by flooding, which can be attributed to poor land use decisions by the government and private sector, give no consideration for the site's ability to withstand flooding. The 2004 edition of the Territorial Hazard Mitigation Plan acknowledges these flooding hazards. For example, one of the two clinics on Saint John (Morris de Castro Clinic) located in Cruz Bay is situated less than 100 ft. from the harbor (at sea level). Other critical facilities such as the WAPA power plant, desalination plant, and police station are also located in areas which are prone to flooding. Severe flooding to critical facilities of this type could result in adverse consequences. Installing culvert pipes to alleviate flooding around the Westin Hotel and nearby public road, 2). Implement drainage improvements to remedy drainage issues at critical facilities such as the fire station and Guy Benjamin School, 3). Addressing localized flooding

hazard at WAPA's electric plant and water desalination plant, and 4). Undertake a mitigation project on Saint John's Centerline Road where minor rock slides are prevalent, and infrequent heavier landslides have resulted in blocked roads, buried automobiles, and resulted in the collapsing of retaining walls. Centerline Road is the means by which residents of Saint John's fastest growing area (Coral Bay) access the law enforcement building, medical services building, and emergency evacuation point

Due to their geographic locations, the Virgin Islanders and other Caribbean islands have caused residents to focus their attention on the likelihood of natural disasters such as hurricanes and earthquakes. One of the areas where planning has not been emphasized is in that of tsunamis. According to Jacqueline Heyliger (Assistant Director of VITEMA), "The very infrequency of the phenomenon is one of its greatest dangers, leading people not to expect it and not to be prepared". Heyliger also asserts that the infrequency of a particular disaster phenomenon can be its greatest danger.

Because the U.S. Virgin Islands are a geographically isolated, the island territory must undertake a larger bulk of emergency planning which is otherwise shared by the cities and regions of the U.S. mainland. Simply put, the Virgin Islands are unable to assume that expedited help will be available from the neighboring town, city, or state. This perspective is shared by Walters who views the territory's geographical isolation as one of its greatest vulnerabilities. Walters asserts that the small island jurisdiction is isolated unlike towns, cities, and states on the U.S. mainland. The nearest jurisdiction that can come to the aid of the Virgin Islands is Puerto Rico. On the U.S. mainland, when local resources are exhausted, intergovernmental relations can exist where cities can depend on counties for reinforcement, counties can depend on the state, and the state on the federal government. However, in the U.S. Virgin Islands, the local government must undertake all three roles. For this reason, territory emergency planning has taken an approach to be very self-sustaining. The territory is only able to turn to the federal government in instances where a disaster exhausts all local resources.

The Virgin Islands are located more than 1,000 miles from the U.S. mainland so planning must ensure that additional resources are stockpiled until federal help can be deployed. For instance, close to 100% of food, medication, and fuel are imported through ports. A catastrophic disaster that destroys the territory's ports would severely hinder the territory's ability to import essential goods. According to the CIA World Factbook (2006), most of the territory's piers will not withstand seismic activity and are susceptible to damage by tsunamis or tidal surges. The FEMA Disaster Management Guide-U.S. Virgin Islands (2004) states that the almost total reliance on imported food indicates that the territory's ports must resume normal operations within 1-2 weeks after a disaster before the goods that are on hand are depleted. Walters asserts that disaster-planning measures must ensure that the island territory is able to be self-sufficient for at least 7 days after the impact of any disaster.

Ways in which WSVI TV Addressed the problems described above

Every year Channel 8 puts out hurricane maps all across the US Virgin Islands. Being directly in the storm path, everyone becomes interested in watching the weather and getting prepared. For the past 3 years, I have been happy to be involved with getting this important information to the public... But is it a lot of information, so organizing it well and making it easy to read is the key. Channel 8 issued 3,000 of these maps.

Channel 8 works with Virgin Islands Territorial Emergency Management Agency (VITEMA). VITEMA, the territorial agency with primary responsibility for ensuring the territory's resilience to disasters. VITEMA's staff of professional planners, communications specialists, logicians, operations managers and support personnel is committed to an all hazards approach to emergency management in many ways through the season to prepare for Hurricanes and the floods that follow.

By building and sustaining effective partnerships with federal, state and local government agencies, and with the private sector - individuals, families, non-profits and businesses- VITEMA ensures the Territory's ability to rapidly recover from large and small disasters by assessing and mitigating hazards, enhancing preparedness, ensuring effective response, and building the capacity to recover.

Channel 8 directly coordinates daily broadcasts with the management of VITEMA during the approach of a storm to put out concise and credible information. The Channel 8 Hurricane tracking maps are a tool to assist in this effort. The back of the maps contain a wide array of information about local agencies and services available to viewers in preparing for, securing their safety during and after the impact of the hurricanes.

Channel 8 airs a locally produced weather forecast four times each weekday with particular emphasis on tracking developing weather systems in the Atlantic. During the Hurricane season from June through November, additionally reports are added as needed. A minimum of 300 minutes of airtime is devoted to such on air forecasts during this quarter.

Channel 8 also regular covers the missions and presence of the Air Force Reserve Command's 53rd Weather Reconnaissance Squadron deployed to their detachment in St. Croix recently to fly training missions over the Caribbean in preparation for the hurricane season. During the approach of a storm Channel 8 coordinates with the Public Information Officer of the command to provide daily updates on the local news when the crews are flying missing.

Unit Airmen are part of the 403rd Wing located at Keesler AFB, Miss., and are the only Department of Defense unit currently authorized to fly into tropical storms and hurricanes to collect critical data.

From May through Nov. 30 each year, the Hurricane Hunters will be honing their skills in special WC-130J Hercules aircraft, ready to fly when called upon by the National Oceanic and Atmospheric Administration's National Hurricane Center in Miami.

The Reserve squadron has 20 aircrews, but its composition is unusual for a Reserve unit. Fifty-nine unit members hold air reserve technician positions, civilian employees in the Air Force Reserve, which allows the fast reaction time. The rest of the squadron is made up of Air Force reservists.

The Hurricane Hunters provide surveillance of tropical disturbances and hurricanes in the western Atlantic Ocean, Caribbean Sea, Gulf of Mexico and eastern Pacific for the National Hurricane Center.

We also covered the impact of this federal presence on the economy and recruiting efforts for the Air National Guard. At least 200 minutes of airtime in local news and local community announcements were connected with the presence of the hurricane hunters.