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HURRICANE AWARENESS

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2010 PROGRAMME

Friends of the Environment - 3rd March, 2010

70th Anniversary of the Battle of Britain - 18th June, 2010

Hurricane Awareness - 28th September, 2010

Christmas 2010 - 10th November, 2010

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THE ISLANDS OF THE BAHAMAS
"IT JUST KEEPS GETTING BETTER"

BAHAMAS

The National Emergency Management Agency
NEMA
THE BAHAMAS

HURRICANE AWARENESS

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NEMA's History

The National Emergency Management Agency (NEMA) has developed over may years, beginning in the 1970s. The Government also maintained the National Emergency Relief Account at the Royal Bank of Canada, funds from which were used as early as 1965 in the hurricane Betsy relief effort.

In August 1992 following the passage of hurricane Andrew the government became aware that the response mechanisms were not adequate so a permanent disaster relief arm of the government was established. The late Mrs Catherine Benjamin, a senior public officer, was seconded from the ministry of Foreign Affairs to work in the hurricane Andrew relief effort.

It was not until after the passage of hurricane Floyd that the Recovery Sub-Committee was formed on 24th September 1999. The hurricane Floyd relief effort continued until the summer of 2002.

The role of the hurricane committee was expanded to include preparedness for all forms of disaster. This was the beginning of the Disaster Management Committee (DMC) in its current form. The DMC meets on the last Friday of each month and more frequently if necessary. Committee members are draw from government ministries and agencies.

The Recovery Sub-Committee was renamed Disaster Management Unit (DMU). The focus of the Disaster Management unit was expanded to include the concept of comprehensive disaster management. To reflect this the name was changed to National Emergency Management Agency (NEMA).

NEMA has conducted many training programmes to which participants from the Family lslands have been invited. The aim has been to have trained people in each community who will be able to respond to a disaster. NEMA has also conducted training programmes on Abaco, Eleuthera, Exuma and Long Island. The Community Emergency Response Training (CERT) programme has been introduced to the Family Islands where representatives have been asked to prepare disaster response plans.

NEMA is a coordinating agency which activates the Emergency Operations Centre when a disaster hits.

NEMA is now a recognized acronym in The Bahamas. It is hoped that the efforts and the Agency will encourage the citizens and residents of the country to be prepared for disasters.

Rainfall

The word hurricane evokes violent wind, yet some of the worst tropical cyclone catastrophes are caused by torrential rain. Tropical Storm Noel over Exuma in 2007 caused heavy rainfall reaching a record level of 15 inches (380mm) Four factors determine how much rain will fall; the amount of water vapour in the air, topography, the vertical extent and duration of the updraft. Hurricane Noel in 2007 and hurricane Wilma in 2005 caused heavy flooding which lead to casualties in Exuma and Freeport respectively. Rain may extend outward for hundreds of miles from the centre of the hurricane and may last for several days after the hurricane has passed. An average of 10 to 15 inches of rain falls over coastal areas during the passage of a well-developed hurricane, but over 20 inches have been recorded and rain may fall at the rate of one inch an hour.

Storm or Tidal Surge

Violent hurricane winds may produce storm surges of up to 45 feet high at sea, and storm surges of over twenty feet may crash against shores at speeds of up to 40 mph. Long swells may move outwards from the eye of a hurricane for more that 1,000 miles. These long swells are often the first visible signs of an approaching hurricane and are known as the *Storm Surge*. A *storm surge*, also called a *hurricane surge*, is the abnormal rise in sea level caused by wind and pressure forces of a hurricane. It can be extremely devastating, and is a major cause of damage and greatest danger to life during the passage of a hurricane. It is estimated that 75% of all hurricane related deaths and injuries are caused by the storm surge.

The storm surge, a moving wall a water weighing millions of tons, acts like a gigantic bulldozer destroying anything in its path. If it arrives at the same time as a high tide, the water height will be even greater. The shape of the shoreline and the ocean floor has a great deal to do with a storm surge's magnitude. The more gradual the floor slopes the less volume of sea there is in which the surge can dissipate and the further inland the water is displaced. This dome of water can be up to 40 to 60 miles long as it moves onto the shoreline.

Winds

Of all the tropical cyclone damaging agents, strong winds are perhaps the best understood. Damaging winds will accompany any hurricane, no matter what category it is. The stronger the hurricane the more potential there is for wind damage to occur. The fierce winds may reach 200 mph. The strongest winds reported in the Bahamas were Hurricane Andrew in 1992 (150mph), the Great Bahamas Hurricane of 1926 (150mph), and the Great Bahamas Hurricane of 1929 (140mph). Wind speeds are greatest near the surface around the central calm or eye.

The force of the wind can quickly decimate the tree population, bring down power lines and utility poles, knock over signs, and may be strong enough to destroy some buildings. Flying debris can also cause damage, injuries and death.

Reconnaissance Aircraft

Reconnaissance Aircraft or Hurricane Hunters are manned aircraft that fly directly into the hurricane to measure information about the storm. Satellite data has revolutionized weather forecasters' ability to detect early signs of tropical cyclones, but satellites cannot determine the interior barometric pressure of a hurricane, nor provide accurate wind speed information. This can only be done by flying a reconnaissance aircraft into the hurricane.

The 53rd Weather Reconnaissance Squadron, better known as "Air Force Hurricane Hunters", is a United States Air Force Squadron based in Biloxi, Mississippi, that flies missions into hurricanes and weather systems for research purposes and observation.

Hurricane conditions in the Bahamas

Hurricanes are products of a tropical ocean and atmosphere. Powered by heat from the sea, they are steered by the easterly trade winds and the temperate westerlies as well as by their own ferocious energy. Around their core, winds grow with great velocity, generating violent seas. Moving ashore, they sweep the ocean inward while spawning tornadoes and producing torrential rain and floods. Each year, on average 10 tropical storms, of which six become hurricanes and two major (category 3 or higher on the Saffir-Simpson Hurricane Scale), develop over the Atlantic Ocean, Caribbean Sea or Gulf of Mexico from June 1 to November 30. For the Bahamas, peak hurricane threat exists from mid-August to late October

The Bahamas have been brushed or hit by tropical storm or hurricane 57 times since 1871, and average of once every 2.4 years.

TECHNICAL DETAILS

Design . . . . . : Derek Miller

Printer . . . . . : The Lowe-Martin Group

Process . . . . . : Lithography

Stamp Size . . . . . : 32.00mm x 32.00mm

Pane . . . . . : 50 (2 x 25)

Perforation. . . . . : 13 per 2 cm

Paper . . . . . : CASCO Crown watermarked paper

Values. . . . . : 15c, 50c, 65c, 70c

Release Date. . . . . : 28 September 2010

The Hurricane information was provided by Mr. Wayne Neely.