

JARA DISASTER PREPAREDNESS PLAN

INTRODUCTION

Throughout history, natural and man made disasters have inflicted heavy cost on human, material and physical resources, this represent a potentially significant obstacle to economic growth and development. Since a disaster is an emergency that suddenly disrupts the daily life of any community, it can result in substantial loss of life and social upheaval leading to many persons becoming homeless, helpless and hungry. This situation is further aggravated by the disruption of local telephone communications, electrical power supply and water.

It is for this reason that **JARA** members have put themselves completely at the service of our local Office of Disaster Preparedness and Emergency Management (ODPEM) and Jamaica Red Cross. Because we operate in an environment that is prone to earthquakes, flood and hurricanes, members must be prepared to implement the necessary procedures to ensure that the club can respond effectively to any type of disasters. The annual training in place is to co-ordinate the use of resources, both human and equipments, for the saving and sustenance of life and property, and for the return to a normal life style as soon as possible.

GENERAL CONCEPT

Disaster situations can be of two categories;

1. Natural - Earthquake, Flooding, and Hurricanes.
2. Man Made - Accident, Civil Disorder and Fire.

The objective is to develop a Disaster Preparedness plan for the members of **JARA**. It also will serve as a tool to ensure effective and reliable response to disaster situations, by having clear and reliable procedures. Planning for the Association is therefore an ongoing process. Because of the vulnerability of the Caribbean region to hurricanes, than any other type of disasters this plan is designed around a hurricane. However, it is sufficiently flexible to deal with other national disasters such as earthquake, flood or fire.

Natural and man-made hazards are universal phenomena that impact on human life; capital assets, and land use. Consequently over the years, Jamaica has been exposed to several disastrous events such as **HURRICANE, EARTHQUAKE, and FLOODING**. Then there is also the fact that abuse of the land through deforestation will lead to or accelerate soil erosion. The vexed issue of building on unstable land that is unsuitable for housing has plagued the Jamaican population for many years.

HURRICANE SEASON

The Atlantic hurricane season officially begins June 1st and ends November 30th. Hurricanes are the Caribbean's greatest natural hazard. History has recorded that Jamaica's vulnerability to this type of hazard is due to its climatic conditions and geographical location. Though hurricanes cannot be prevented there are certain measures an individual can carry out in order to reduce loss of life and severe damage to property.

MAKE A PLAN

It is said that, “people never plan to fail they only fail to plan” plan to be as self-sufficient as possible. You may have to survive for a week or two on your own resources without piped water, electricity, telephone or access to the supermarkets. If you were around in 1988 during Hurricane Gilbert then you should understand. Determine if you live in an area vulnerable to flooding. If you do live in one, develop a plan to ensure that all members of your family know what to do when disaster threatens.

If you must evacuate, plan where you are going to stay, how to get there, and the supplies you will need. Friends, relatives, or evacuation centres are some options. **Consider an evacuation shelter as a last resort; plan for tomorrow today.**

- Store enough non-perishable food to last for at least one week.
- Enough water for drinking and sanitary use.
- Ensure that your First Aid Kit is in order.
- Check your emergency equipment and have them handy; e.g. water boots, flashlight, and battery-powered radio.

WHAT IS A TROPICAL DEPRESSION?

This is a tropical cyclone with maximum sustained wind speed of approximately thirty-eight (38) mph or sixty-one kilometres (61) kph.

WHAT IS A TROPICAL STORM?

A tropical storm is an organised tropical cyclone with approximate wind speeds of seventy-four (74) mph or one hundred and nineteen (119) kph.

WHAT IS A STORM SURGE?

A storm surge is a great dome of water often as much as fifty (50) miles wide that sweeps across the coastline near the sea. Storm surges destroy even massive structures, or cause erosion under major buildings, which causes them to collapse. A storm surge is sometimes responsible for approximately nine (9) of every ten- (10) deaths in a hurricane. The surge is the most dangerous part of a hurricane.

WHAT IS A HURRICANE?

Hurricanes are tropical cyclones in which winds reach a constant speed of at least seventy-four miles per hour (74) mph and may gust to one hundred and ninety nine miles per hour (199) mph. They blow in a large spiral, around a calm center.

Heavy bands of spiral clouds may cover an area several hundred miles in diameter and generate torrential rains and tornadoes.

The eye or middle of the hurricane is deceptively calm, almost free of clouds, with light winds and warm temperatures. If the eye passes over your area only half of the storm has passed, and the latter half is yet to come. As the hurricane moves over the ocean, a dome of water known as the storm surge forms in the eye. A storm surge can be approximately nine (9) to nineteen (19) feet above normal sea level, and is the most dangerous part of the hurricane. Waters will rise rapidly as the storm approaches, preventing evacuation of some communities.

HURRICANE STRENGTH

The Saffir-Simpson Hurricane Scale is a 1-5 rating based on the hurricane's present intensity. This is used to give an estimate of the potential property damage and flooding expected along the coastline should a hurricane make landfall. Wind speed is the determining factor in the scale, as storm surge values are highly dependent on the slope of the continental shelf and the shape of the coastline.

<u>CATEGORY</u>	<u>WINDS (mph)</u>	<u>STORM SURGE</u>	<u>DAMAGE</u>
1	74-95	4'-5'	Minimal
2	96-110	6'-8'	Moderate
3	111-130	9'-12'	Extensive
4	131-155	13'-18'	Extreme
5	155+	18+	Catastrophic

WHAT IS A HURRICANE EYE?

A Hurricane eye is the relatively calm area in the center of a hurricane with light winds, clouds and warm temperatures. The eye is bordered by the maximum winds of the hurricane and torrential rains.

HURRICANE PROCEDURES

The Hurricane season officially begins June 1st and is concluded November 30th, most hurricanes occur between August and October. However, hurricanes may occur at other times during the season. Hurricanes are a fact of life in the Caribbean, Hurricanes Gilbert and Hugo in 1988 and 1989 are vivid evidence of the fury of these natural events, that produced flooding and wind damage.

A high level of preparedness can reduce the impact on an individual person. Therefore, it is imperative that members of **JARA** should make appropriate preparations to ensure the safety of their families and club property. A hurricane passing close or making a direct hit on the Island can be devastating. It is therefore the moral responsibility of each Ham to be prepared, mentally and psychologically to cope with disaster at home or the work place. This is the time when the annual Field Day training will be tested.

Remember that hurricane procedures are general guidelines or recommendations, which will provide tasks and responsibilities for preparedness before, during and recovery after a hurricane.

These procedures will assist to substantially reduce the level of damage and dislocation that can be caused by a hurricane.

They are three recommended procedures that can be categorised into stages.

- **BEFORE** Preparatory actions during the **Watch** period.
- **DURING** Tranquil actions during the event.
- **AFTER** Recovery actions.

WARNING SYSTEM

There are two types of official hurricane warnings:

1. **Hurricane Watch** a hurricane may affect the Island within **48 hours**.
2. **Hurricane Warning** it is expected to strike within **24 hours** or less.

For the purpose of this manual we will modify these two warnings into phases to accommodate our own situation. The purpose of these phases is to assist us to do what, and when in a timely way.

HURRICANE WATCH	Possible threat 48 hours
HURRICANE WARNING	24 hours to expected time of arrival.
AMBER PHASE 1	12 hours to expected time of arrival.
AMBER PHASE 2	6 hours to expected time of arrival.
AMBER PHASE 3	The blow.
AMBER PHASE 4	Aftermath and recovery.

THE WATCH

Possible Threat

1. Prepare your personal home to ensure the safety of your family.
2. Plan an evacuation route if you live in a flood prone area.
3. Inspect and prepare your first aid kit.
4. Purchase extra petrol, oil and fuel filter for generators (Home & club)
5. Inspect and test all emergency equipments.
6. Trim trees close to buildings and dispose of cuttings.
7. Monitor weather bulletins via Internet, local radio and TV stations.

THE WARNING

24hrs. to ETA

1. All members should monitor repeater and HF frequencies.
2. The President and operation manager should attend EOC meetings at ODPEM
3. Secure antennas and equipments at club station.
4. Fill fuel tank of all JARA generators & cover radios with plastic.
5. Continue to monitor weather bulletins via local radio and TV stations.

AMBER PHASE 1

12 hours to ETA

1. Complete all outstanding tasks and ensure safety precautions at home.
2. Continue to monitor the bulletins via Internet VHF and HF frequencies.
3. Operation Manager to prepare roster of net controllers for the club station and ODPEM.

AMBER PHASE 2

6 hours to ETA

1. Install storm shutters at home.
2. Continue to monitor local HF and repeater frequencies;
7.150MHz 3.775MHz 147.960MHz 147.900MHz 146.880MHz 147.800MHz.
146.700MHz 146.960MHz.
3. Operation manager should advise volunteer members of their operating times as net control at club station or ODPEM.

AMBER PHASE 3

The BLOW

1. Continue to PRAY
2. Stay calm.
3. Remember that during the calm at this time, this is only half of the hurricane and the latter half is sometimes more devastating than the first.

AMBER PHASE 4

The Aftermath

1. The general objective of this phase is to establish local and international two-way radio communications.
2. Inspect home to carry out remedial actions where necessary.
3. Prepare to handle formal and informal messages.

EXECUTION

1. Reinstall antennas and equipments at home and club station.
2. Establish international communications with hurricane watch net.
3. Establish local nets on 7.150MHz and 3.775MHz.
4. Establish local HF and VHF communications with ODPEM and other relief organisations.

FREQUENCIES

Local HF & VHF 7.150MHz 3.775MHz 147.960MHz 147.900MHz 146.880MHz
146.700MHz 146.960MHz 147.800MHz

International

Hurricane Watch Net:	14.325MHz
International Assistance Traffic Net	14.303MHz
Maritime Mobile Service Net:	14.300MHz
National Hurricane Centre::	14.325MHz
Salvation Army Net:	14.265MHz

Caribbean

Antilles Emergency & Weather Nets:	3.815MHz 7.162MHz
Caribbean Emergency Net:	14.185MHz
Talk Shop Net:	3.828 MHz
Talk Shop Net	7.195MHz

IARU Region 2 Emergency Frequencies

Each year, during the Atlantic Hurricane Season, June 1st to November 30th Amateur Radio operators in North and Central America play an integral part in gathering and distributing information for weather and emergency services; throughout the region and USA. Should the need arise; the following HF frequencies will be activated during this time. Frequencies listed below are not comprehensive of all Caribbean and Central American countries.

Belize	7.177 MHz
Caribbean Emergency & Weather Nets:	7.162MHz & 3.815MHz
Caribbean Emergency:	14.185MHz
Central America:	7.090 MHz & 3.750MHz
Cuba:	7.110MHz 7.120MHz 3.720MHz 3.740MHz
Eastern Caribbean Emergency System Net	7.036MHz
Guatemala:	7.075MHz
Jamaica:	7.150MHz 3.775MHz
Mexico:	3.690MHz 3.693MHz Alternate frequencies 7.060 & 14.120MHz
Nicaragua:	3.798MHz 7.098MHz 14.298MHz Alternate frequencies 3.898MHz 7.108 & 14.198MHz
Panama:	7.085MHz
Dominican Republic:	3.780MHz 7.065MHz 14.280MHz

USA

Hurricane Watch Net:	14.325MHz (Day) 7.268MHz (Night)
Maritime Mobile Service Net:	14.300MHz
National Hurricane Centre: WX4NHC	14.325MHz
Salvation Army (SATERN)	14.265MHz

Many thanks to the National Societies and Emergency Communications Groups of IARU Region 2 for updating their frequency information.