# EMERGENCY HEALTH CARE IN THE 1990S

The delegates to the International Conference on Emergency Health Care Development, held in Washington DC in August 1989, out of concern for the increasing worldwide human and economic loss due to trauma and other medical emergencies, have reached the following understandings:

- Emergency health care (EHC) consists of the timely provision of those preventive and curative interventions, which can relieve pain or prevent disability or death.
- Emergency health care involves the management of injury (codes E800-E999 of the International Classification of Diseases), acute medical illness, and acute emotional illness.
- Emergency health care is a basic need for all people
- Injury is responsible for increasing morbidity and mortality in countries of all levels of economic development, and frequently has a much more severe effect on children and the working age population. Many injuries are preventable through health promotion and simple modifications in the home, school, and work environments.
- Recent advances in health care organization and medical technology have made it possible to significantly decrease the adverse effects of health emergencies.
- When an injury or sudden illness occurs, the first response is usually provided by family members or bystanders. Community education can improve this response.
- The majority of medical and traumatic injuries typically present to the primary care system.

- When disasters occur, the first medical response is provided by local providers of routine emergency health care.

Based on these observations, we call for the following action:-

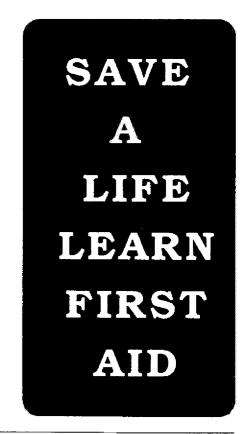
- All authorities concerned with health at national, regional, and local levels should recognize emergency health care as an integral part of the primary health care system, and should ensure that their primary health care systems are capable of responding to emergencies.
- All authorities concerned with health should make optimal use of local personnel and the community at large by employing improved management techniques and training.
- All authorities concerned with health should integrate into existing and future public education activities, curricula on injury prevention and response to emergencies and disasters.
- The health care community should make its contribution to the "International Decade for Natural Disaster Reduction" by:
  - a) Strengthening local capabilities for responding to multiple casualty incidents using local personnel;
  - b) Ensuring that national com mittees for the Decade are fully aware of the potential of emer gency health care services in ef fectively reducing the impact of disasters; and
  - c) Adopting prevention and pre paredness measures likely to reduce the number of casualties in a disaster.

Additional research in emer-

gency health care is needed. Funding agencies should support research on emergency health care delivery systems, intervention effectiveness, and training methodologies.

- World health authorities should collaborate in their efforts to bring to the attention of policy makers the public health consequences of health emergencies, and the need to improve local urgent health response capabilities.
- National and international disaster preparedness offices and agencies should work carefully with local emergency health care directors to coordinate plans for response to potential large scale events.

This resolution was developed by an Ad-Hoc Committee of the Conference. It was discussed, amended, and approved by the full Conference on 18 August 1989.



# DISASTER NEWS BRIEFS

#### TRINIDAD - Aircraft Incident

On Friday 22nd September, BWIA flight 427 out of Kennedy airport and en route for Trinidad via St. Lucia and Antigua, developed problems with the hydraulic system in the nose landing gear. As a result of this the crew flew direct to Piarco airport in Trinidad where an emergency was declared and emergency procedures put into operation.

The aircraft eventually landed safely at Piarco without injury to any of the passengers or crew.

# TURKS AND CAICOS -Aircraft Accident

The month of August saw two aircraft incidents in the Turks and Caicos islands. The first occurred on Thursday, 3rd August at about 5.15 pm when a Cessna 42 plane being piloted by American Pilot, Ronald L. Haucke, crashed at Grand Turk International Airport. The plane exploded on impact killing the pilot who was the only person on board. Investigations are being carried out into the incident.

The second incident occurred on the morning of Monday 14th August when Provo pilot and former Caicos conch farm operations manager Gary Hodgkins ditched his Cessna 172 plane about 10 miles from Ambergris Cay.

Hodgkins and his passenger escaped injury despite the fact that on hitting the water, the plane flipped over, then righted itself a few minutes later and sank in about 12 feet of water.

The pilot and his passenger were picked up by a fisherman some 90 minutes later.

#### EARTHQUAKE IN BARBADOS

[Editor's Note: Surprise was expressed in many quarters when the Seismic Research Unit in Trinidad revealed that an earthquake was recorded off the coast of Barbados in June 1989. However, the following article suggests that such events are to be expected from time to time. Read on and learn more of "The Barbados Earthquakes of the 1830's".]

There was a time, more particularly during the 1800s, when earthquake shocks occurred fairly regularly in Barbados. The seven or so that occurred between 1806 and 1837 had each caused some fear and alarm, but none moreso than the one that occurred around 6 o'clock on the morning of January 11, 1839, which was described at the time as one of the most awful and alarming shocks ever experienced in the island.

According to a contemporary Press report, the greatest terror was felt throughout Bridgetown and all over the island as a result of the lengthy duration of the shock, the violent shaking of the houses, as well as the noise which resembled that of carriages passing along the roads.

The vibrations, which extended from northeast to southwest, and which lasted about one minute, damaged several houses but caused no casualties.

The earthquake was felt also in St. Lucia, where some houses were damaged, several persons were injured and a child killed. In St. Vincent, Grenada and Trinidad it was felt only slightly; but in Martinique, where the shock lasted about 90 seconds, some houses were demolished in St. Pierre, the then capital, and about eight persons were injured and killed. The town of Fort Royal was reduced to ruins that buried about 500 persons, killing some of them.

The following August 2 at 2:25 in the morning, Barbados was again shaken by another terrifying earthquake shock that lasted about 30 seconds. This time, however, there was no undulating motion, but merely a violent shaking that caused some minor damage and no casualties.

(Warren Allen, Daily Nation, 16 March, 1988)

#### REGIONAL CONFERENCE ON MAINTENANCE ENGINEERING

The Third Annual Technical Conference of the Association of Professional Engineers of Trinidad and Tobago in collaboration with Faculty of Engineering, University of the West Indies will take place November 23-24, 1989 in St. Augustine, Trinidad.

In the fiercely competitive world of today, Industrial Organizations need to focus on achieving high quality and consistent delivery times to succeed. The maintenance engineers and managers have a key role to play by ensuring high levels of plant availability and reliability.

Maintenance personnel in the Caribbean face a formidable task for several reasons: the low status given to maintenance within organizations; scarcity of skilled and trained staff; lack of readily available spares; and inadequate workshop facilities. The inevitable consequences are missed production targets, substandard quality, and high unit cost. An additional consequence is higher than expected losses in disasters.

The objective of this conference is to update maintenance engineers and managers with the best practices in their field and to keep abreast of the latest approaches and techniques available for effective management of the maintenance function. Papers on maintenance in all fields of engineering will be presented.

#### EARLY NOTICE 1990 HURRICANE CONFERENCE

The 1990 U.S. National Hurricane Conference will be held from April 18-20, 1990 at the Hyatt Regency, Houston, Texas. The PCDPPP Newsletter will keep caribbean readers informed of the Conference theme and special sessions as soon as these details are received. Readers having views on useful sessions may send these to the PCDPPP or direct to Dr. Stan Tait, c/o National Hurricane Conference Secretariat, 864 East Park Avenue, Tallahassee, Florida 32301 Phone (904) 222-7677.

#### GUIDELINES FOR EMERGENCY RESPONSE IN EAST CARIBBEAN

Hurricane Hugo will be the first test of guidelines for coordinating the response of the Barbados based resource agencies which were finalised in August 1989.

These guidelines were developed at the request of UNDP Barbados by PCDPPP in collaboration with the Barbados based agencies to facilitate the effective response of regional and international donor agencies during periods of disaster in the Eastern Caribbean. UNDRO has a General Assembly mandate to coordinate international relief to disaster stricken countries, and this is done through the UNDP Resident Representative to the Eastern Caribbean based in Barbados.

Most international agencies have their Caribbean regional head-quarters in Barbados. The coordination of assistance to non-site countries for which these agencies are responsible presents difficulties and can be complicated, hence the need for specific guidelines.

The draft guidelines were disseminated on September 4, following their evolution out of discussions started in 1988 by UNDP and PCDPPP. The guidelines were reviewed at a meeting in Barbados on August 23rd involving Barbados based agencies and representatives of the USAID/OFDA Disaster Response Team based in Costa Rica. (They will be evaluated following use in the Hugo Operations)

DISASTERS
DO
HAPPEN!

ARE YOU
PREPARED
?

## DISASTER MITIGATION

Most Governments, relief organizations and individuals involved in disaster management have come to realize that modern technology and improved social policies can do much to mitigate the negative impact of natural disasters. But the public at large and the potential victims of future disasters in particular are largely unaware of what disaster mitigation can do for them.

The term disaster mitigation has gradually come to replace the term disaster prevention, earlier defined as "measures designed to prevent natural phenomena from causing or resulting in disaster or other related emergency situations"\*. through the implementation of longrange policies and programmes. However, it also encompasses the term disaster preparedness, i.e. "action designed to minimize loss of life and damage, and to organize and facilitate timely and effective rescue, relief and rehabilitation"\* in the case of disaster situations which cannot be avoided.

The reason for the evermore widespread use of the term mitigation seems to be its inherent sense of realism. Prevention has sometimes been found misleading, inasmuch as many disasters cannot be prevented from taking place Mitigating, that is to say damping, the worst effects of

violent and sudden natural hazards, is well within the realm of reality and also within the means of most developing countries.

It is difficult to give facts and figures for mitigation, as one would for disaster damage and relief: successful mitigation is by definition a non-event for which there is little to appraise. Only after a disaster has occurred, for instance, can the positive effects of mitigation policies really be measured - in terms of less damage, of fewer casualties than in past events of a similar nature and equal intensity.

Many disaster mitigation measures can only be effective if they are fully understood and accepted by the populations at risk. Public education and awareness campaigns, in the context of the forth-coming International Decade for Natural Disaster Reduction, will be essential in changing people's attitude from disaster response to disaster mitigation and from a fatalistic mentality to one of responsible self-help.

(Editorial reprinted from UNDRO News, May/June 1989)

\*Definitions established by UNDRO, WHO and LRCS in 1987

# DID YOU KNOW?

CB Radio conveys more emergency communications than any medium but telephone. In future disasters CB is likely to outperform even the telephone since lines are often down or circuits overloaded making telephone communications impossible or extremely difficult.

Sea-grasses through their rootlike rhizomes, bind the sand particles and stabilize the substrata inhibiting sand transport during periods of ocean turbulence. Coral reefs and mangroves are natural protective barriers, by absorbing the energy of wave action they mitigate the impact of coastal storms and hurricanes.

## **BOOKS AND ITEMS OF INTEREST**

#### NEW FROM THE PCDPPP DOCUMENTATION CENTRE

#### HAZARD MAPPING MEETING

In late 1987, the PCDPPP sponsored a Meeting of Experts in Hazard Mapping in the Caribbean to review the status of work on defining the spatial extent of hazards and associated risk, review methodology, compare experiences, identify areas for future regional collaboration (including training) and to seek to develop regional action plans for closer technical cooperation for the next three to five years.

The Proceedings of this meeting which was held 30 November - 4 December 1987 in Kingston, Jamaica, have now been published, edited by David Barker of the Department of Geography, UWI, Mona, Jamaica. Interested persons should contact Mr. Barker or the PCDPPP.

#### TRACING IN DISASTERS

The League of Red Cross and Red Crescent Societies has published a new booklet titled "Guidelines for Tracing in Disaster"

Because the Red Cross and Red Crescent symbols stand for assistance in time of need, all national societies should be ready - not only to relieve physical suffering and provide material assistance - but also to alleviate anxiety and psychological suffering. Tracing is one of the contributing factors to this latter, and less tangible, category of need.

Like other services rendered by National Societies within or outside times of disaster, tracing requires preparation and know-how.

This document presents the guidelines for tracing in disasters requested by the League General Assembly in Rio de-Janeiro in November 1987.

Prepared jointly by the League of Red Cross and Red Crescent Societies, the Central Tracing Agency

(CTA) of the International Committee of the Red Cross and some National Societies particularly experienced in tracing, these Guidelines, which in no way supersede Annex 7 of the 1983 Edition of the League Disaster Relief Handbook, but rather complement it, aim at clarifying the respective roles of the different components of the International Red Cross and Red Crescent Movement.

They are divided into three main sections dealing with:

- the role of the League Secretariat
- the role of the CTA
- the role of the National Societies

In addition, sample cards are annexed, which can be adapted to local requirements. These should facilitate and promote harmonization of working procedures among National Societies.

It is hoped that National Societies will use this document for reference in order to establish their own Guidelines. These should be adapted to their needs so that their tracing activities may be maximized in time of disasters.

Copies can be obtained from the League of Red Cross and Red Crescent Societies, P.O. Box 1211 Geneva 19, Switzerland.

#### EARTHQUAKE TEACHING MATERIALS

The U.S. Federal Emergency Management Agency has produced a comprehensive teaching plan to help primary school children learn about the dangers of earthquakes and how to cope with them. The plan consists of lessons that provide basic information about earthquakes and features hands-on classroom activities. The package contains teacher background material, masters for reproducing transparencies, handouts and worksheets, and lists of materials

and resources. This material can serve as a model for developing similar packages for other types of disasters.

Write to: FEMA, Earthquake Programs, 500 C Street S.W. Washington D.C. 20472, USA.

#### NEW HURRICANE VIDEO IN THE PATH OF A HURRICANE

Few have forgotten the trail of destruction left by Hurricane Gilbert last September as it lashed across the Caribbean and Mexico. To strengthen preparedness activities in the Caribbean, the Pan American Health Organization has produced a new 17 minute video programme entitled "In the Path of a Hurricane".

This is the story of the devastating hurricane Gilbert particularly as it affected Jamaica. But it is also the story of all hurricanes and what can be done to prepare for them. Preparedness is key because we cannot prevent hurricanes - and even predicting when and where a storm will hit is not always accurate. For those in the path of a hurricane, preparedness is the best means of mitigating its effects, and one of the best ways to prepare is by learning from the experience of past hurricanes, such as Gilbert.

For information on ordering a copy of this programme, contact PAHO, Washington DC 20037, USA.

#### IDNDR - EERI

The Continuing Education Committee of the Earthquake Engineering Research Institute has produced a 40 slide programme that will facilitate discussions or presentations on natural hazards: floods, volcanoes, tsunamis, earthquakes, to name a few. It also includes mitigation strategies for the different types of

disasters. These scientific and technical activities are required to achieve the overall goals of the International Decade for Natural Disaster Reduction. The programme also includes slides on the opportunities for research and mitigation during the Decade and on assessing the chance and the magnitude of potential losses due to disasters.

EERI has many other slide sets including a new one on the Armenia earthquake. Contact them for a complete listing at EERI, 6431 Fairmount Avenue, Suite 7, El Cerrito, California, 94530, USA.

Cost of the slide programme is US\$50 for members of EERI, \$60 for non-members.

#### PAHO REPORT ON GILBERT

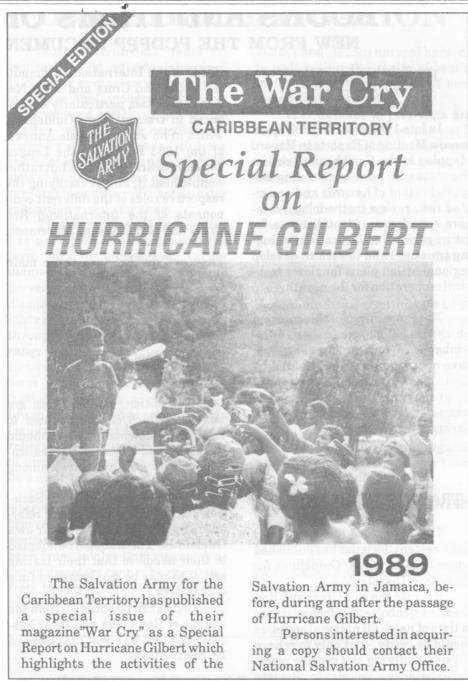
On September 12, 1988 at approximately 11:00 am, hurricane Gilbert hit eastern Jamaica 3 miles south of Morant Point. The powerful storm roared across the island for eight hours from east to west leaving a trail of destruction. There was extensive damage to the health sector and a report has been produced by PAHO/WHO, Kingston, Jamaica dated June 1989 titled "Evaluation of the Impact of Hurricane Gilbert on the Health Sector".

The report looks at the impact of the hurricane on health in general, the impact on functional capacity, environmental health, physical infrastructure and preparedness and response. A number of recommendations are made arising from the analysis of findings.

For more information contact: Dr. Norma Andrews, PAHO/WHO Representative, 60 Knutsford Blvd., Kingston 5, Jamaica.

#### FLOOD REPAIR PUBLICATIONS NEEDED

The Federal Emergency Management Agency has begun a project to update the Flood Emergency and



Residential Repair Handbook. The Handbook was originally published in 1979 to provide property owners information on clean up and repair of flooded homes.

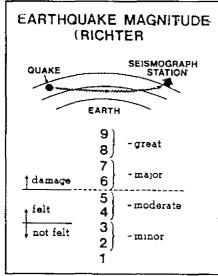
The objectives of the update project are: 1) to update the technical information on clean up and repair based on the research and experience of the last ten years; 2) to incorporate new information on emergency steps and low-cost mitigation measures the owner can take to reduce future damage; and 3) to incorporate the latest information on flood insurance and other assis-

tance available to homeowners. The end product, expected to be ready in the Spring of 1991, will be distributed free to flood victims and other interested parties.

Readers are requested to assist in this effort by sending or loaning copies of publications on flood emergency preparedness, repair, recovery, and retrofitting of homes. Copies of publications or questions on the project should be forwarded to: French Wetmore, French & Associates, Ltd., 153 Nanti, Park Forest, IL 60466, (313) 747-5273.

	MEETINGS, WORKSHOP	S, SEMINARS	
DATE	TITLE	LOCATION	CONTACT
SEP 10-13	CARIBBEAN INSURANCE CONFERENCE: COPING WITH CATASTROPHIES	ANTIGUA	R.L. BARTLEY (809)462011
SEP 13-16	REDUCING IMPACT OF DISASTERS-CHALLENGE FOR 90's	BUFFALO	JELENA PANTELIC NCEER
SEP 13-16	POST DISASTER NEEDS ASSESSMENT	KINGSTON, JAMAICA	PAHO/PCDPPP
SEP 17	MASS CASUALTY DRILL	ST. LUCIA	TIMOTHY JAMES NDC, ST. LUCIA
SEP23-28	PUBLIC WORKS CONGRESS & EQUIPMENT SHOW	ORLANDO, FLORIDA	APWA, CHICAGO -(312)667-2200
SEP 26-27	MEDS 11: MEDICAL EMERGENCY DISASTER STRATEGIES	EDMONTON, ALBERTA	DR. CS NEAL, 106-1115 80 AVE.
SEP 27-29	11TH CANADIAN WASTE MANAGEMENT CONFERENCE	MONTREAL, QUEBEC	JOHANNE LEVEILLE
SEP 28-OCT 2	CARIBBEAN PUBLIC WORKS CONFERENCE	OCHO RIOS, JAMAICA	APWA EDUCATION FDN
OCT 2-6	SEMINAR IN DISASTER MANAGEMENT	FORT DE FRANCE	PAHO/PCDPPP ANTIGUA
OCT 2-6	ROLE OF CARIBBEAN NGO <sub>3</sub> IN DISASTER MANAGEMENT	MANDEVILLE, JAMAICA	ADA/CCC, JAMAICA
OCT 3-5	PROTECTING THE ENVIRONMENT FROM HAZARDOUS WASTES	LONDON	ACOPS LONDON (44) 1-388-2117
OCT 17-19	INT. SYMPOSIUM ON GEOGRAPHIC SCIENCES	HAVANA, CUBA	APT. 16046, CALLE 11, HAVANNA. TLX:511609 PALCO
OCT 24-26	CATASTROPHIES & SOCIETY	MADRID, SPAIN	ITSEMAP, MADRID (1) 58 1 11 00
OCT 30-NOV 2	SYMPOSIUM ON BUILDINGS & EARTHQUAKES	KUNMING, CHINA	NCEER (716) 636-3391
NOV 2	CCEO ANNUAL GENERAL MEETING JAMAICA	KINGSTON, JAMAICA	DR. W. REID, CCEO,
NOV 3-4	CONFERENCE ON INDUSTRIAL/ORGANIZATIONAL CRISIS MANAGEMENT	NYU, NEW YORK	P. SHIRVASTAVA, NYU
NOV 6-9	CONFERENCE ON ECONOMICS & THE ENVIRONMENT	BARBADOS	CCA 809-426-9635
NOV 6	CARIBBEAN METEOROLOGICAL ORGANIZATION AGM	KINGSTON, JAMAICA	СМО
NOV 7-9	SEMINAR ON DISASTER MANAGEMENT	THE VALLEY, ANGUILLA	PAHO/PCDPPP,ANTIGUA
NOV 13-15	ROLE OF WOMEN IN DISASTER PREPAREDNESS	PORT OF SPAIN TRINIDAD	PAHO/PCDPPP,ANTIGUA
NOV 22-25	NATIONAL CONFERENCE ON DISASTER MANAGEMENT	HAMILTON, ONTARIO	CIVIL EMERGENCY, PREP. OFFICER (416) 526-2629
NOV 23-24	REGIONAL CONFERENCE ON MAINTENANCE ENGINEERING	ST. AUGUSTINE, TRINIDAD	DR. G.S. KOCHAR, UWI TRINIDAD
NOV 27-29	EPIDEMIOLOGY OF DISASTERS	PORT AU PRINCE	PAHO/PCDPPP,ANTIGUA

# WHAT YOU CAN DO TO BE PREPARED FOR THE NEXT EARTHQUAKE



You can do many things at home and at work to reduce the dangers from earthquakes to yourself, your family and others.

\* Check your home and workplace for earthquake hazards. Place large and heavy objects on lower shelves of cupboards, bookcases, etc. Strap to the wall or provide other strong support for water heaters and gas appliances, since fires can result from broken gas lines and broken appliance connections. Use flexible connections

wherever possible.

- Eliminate all possible fire hazards. Ask your local fire service for advice.
- \* Always have on hand battery-powered radio, a flashlight and spare batteries.
- \* Teach responsible members of your family how to turn off electricity at the main switch and gas and water at the main valves.
- \* Keep on hand an emergency survival kit containing food, medication, first-aid supplies and bottled water for a minimum of two days per person.
- \* Ensure that responsible members of your family know first-aid techniques and are certified first-aiders.
- \* Hold occasional earthquake drills to ensure you know what to do and that both home and workplace are as safe as possible.
- \* Follow building codes in new construction and alterations, to minimize earthquake hazards. Building sites should be selected and engineered to reduce the hazards of earthquake damage.
- \* Instruct your children on Earthquake safety and provide them with guidance on what to do in the event of an earthquake occurence while they are at school.
- \* Try to ensure that your child's school has an Earthquake and Fire Drill at least once per year.

(Adapted from Self-Help Advice Earthquakes, EPC)

Pan-Caribbean Disaster Preparedness & Prevention Project P.O. Box 1399, American Road, St. John's ANTIGUA Tel: (809)462-4432 TLX:2195 AK FAX.(809)462-4431

...EARTHQUAKES...YOLCANOES...HURRICANES...FLOODS...FIRES...OIL SPILLS...AIR CRASHES...

# SUPPORT DISASTER PREPAREDNESS A MESSAGE FROM THE PAN-CARIBBEAN DISASTER PREPAREDNESS AND PROJECT (PCDPPP)

PCDPPP

Caribbean Disaster Ne

PCDPPP DOCUMENTATION CENTRE P O BOX 1399 ST JOHN'S ANTIGUA