

**UNIVERSITY OF WISCONSIN, MADISON**

# **The Disaster Management Diploma Program**

*For emergency management and  
engineering professionals...*

*Cost-effective educational opportunities to*

- *refresh basic skills*
- *upgrade and advance technical knowledge*
- *prepare for new responsibilities*
- *earn recognition through completion of a  
coordinated, approved and guided program  
of studies*

University of Wisconsin—Disaster Management Center  
Department of Engineering Professional Development  
College of Engineering  
University of Wisconsin—Madison/Extension

*Dear Colleague,*

*For the past several years, you have had the opportunity to study disaster/emergency management when and where you wish. Now your personal study program can also lead to an advanced diploma. And you can use distance education to further your knowledge and advance your career.*

*As part of its ongoing commitment to professional development in disaster/emergency management, the Disaster Management Center at the University of Wisconsin-Madison (UW-DMC) is pleased to announce the establishment of the Disaster Management (DM) diploma. The DM diploma is offered through the Department of Engineering Professional Development. You do not need an engineering background to enroll.*

*For individuals involved worldwide in disaster management, the DM Diploma Program provides curricular options to do more than just study one or two courses, attend one or two workshops. Although a basic set of courses must be taken from the University of Wisconsin, you have the freedom to select additional courses from other educational institutions and disaster/emergency management organizations. You have five years to complete the coursework required.*

*In this announcement, you will find details about UW-DMC courses, DM diploma requirements, costs and enrollment procedures. We invite you to join us in this innovative approach to your professional development.*

*Sincerely,*

A handwritten signature in black ink, appearing to read "Don Schramm". The signature is fluid and cursive, with the first name "Don" being more prominent.

*Don Schramm  
Director*

## **University of Wisconsin—Disaster Management Center**

While many professionals are satisfied simply with participation in periodic courses, an increasing number are asking for a structured curriculum leading to an external degree. The Disaster Management (DM) Diploma Program, designed by the University of Wisconsin—Disaster Management Center (UW-DMC), helps to meet this need.

The primary role of the UW-DMC is to develop a comprehensive professional development program in disaster/emergency management for individuals from international, national, and local government agencies or private voluntary organizations. An international advisory board, representing many countries and organizations, guides the activities of the Disaster Management Center.

In 1983, the UW-DMC first began preparing course materials for professional development in international disaster/emergency management. In 1988, the first self-study courses became available. With the assistance of individuals and agencies experienced in international disaster/emergency management, the UW-DMC continues to develop self-study courses in the areas of mitigation, preparedness, response and recovery. These are practical courses, not academic theory.

### **An Opportunity for You**

Convenience and flexibility are key features of the DM Diploma Program. Most UW-Disaster Management Center courses are available through distance education formats. Some courses are available on videotape; most are self-study texts. On-campus courses are not required. The UW-DMC collaborates with many institutions offering education worldwide in disaster/emergency management. There are no engineering prerequisites for these courses.

The UW-Disaster Management Center also periodically presents workshops and seminars. These sessions bring together professionals from various agencies, disciplines and countries to share insights and practical experience and to encourage a broadening of individual and institutional perspectives. Short courses are held at the University of Wisconsin—Madison and at other locations.

We invite you to join us in this unique professional development opportunity in disaster/emergency management.

## **Meeting Your Personal and Professional Needs**

The DM Diploma Program allows you to identify your needs and meet your personal and professional objectives. You'll be able to keep up to date, to remain effective in your field, and to obtain knowledge in other areas of interest.

Our goals are to provide emergency management and engineering professionals with cost-effective, education opportunities to

- refresh basic skills
- upgrade and advance technical knowledge
- prepare for new responsibilities
- earn recognition through completion of a coordinated, approved and guided program of studies.

## **Your Network of Support**

When you enroll for the DM diploma, you will be assigned a Disaster Management diploma "mentor." This individual, selected because of his/her experience in your particular field of interest, will be available for limited consultation by letter, fax or phone as you plan your curriculum, pursue your studies and complete your professional study project.

During your studies, you can be in contact with other individuals who are enrolled for the DM diploma. On an informal basis, you may interact at a distance with this peer network, using telephone or electronic mail.

## **The Disaster Management Diploma**

The UW-DMC began with the idea of developing course materials for use at distance. The Disaster Management diploma can also be earned at a distance through a combination of self-study, correspondence and independent study courses. You may combine courses available from the University of Wisconsin with courses from universities or collaborating disaster management institutions located near you.

### **Admission Requirements**

For admission into the DM Diploma Program, the minimum academic requirement is completion of a secondary education. Anyone with interest or experience in disaster/emergency management can take the self-study courses offered by the UW-DMC. Application for the DM Diploma Program requires certain additional information about your professional development objectives and a registration fee. Registration forms are at the end of this booklet. For all work, you will need competence in the language of instruction.

### **Disaster Management Diploma Requirements**

For successful completion of the Disaster Management Diploma Program, you must accumulate 60 Continuing Education Units (CEU) within a five-year timeframe. There are no residency requirements. You may study anywhere in the world.

### **DM Diploma Course Possibilities**

Courses selected for a DM diploma curriculum will fall into one of four categories, further described later:

- Professional updating
- Professional advancement
- Professional electives
- Outside interests

To receive the DM diploma, you must earn 60 CEU and also satisfy the curriculum guidelines.

### **Course Flexibility**

Unlike on-campus programs of study, the DM Diploma Program offers you greater flexibility for your individual study program. You have options with course formats, completion times, use of transfer courses and grading/evaluation.

## **Course Formats**

Courses that are part of your DM diploma curriculum may come from many sources. These include traditional college courses (undergraduate or graduate), seminars, workshops, correspondence, self-study, videocassette, computer-based and many other new telecommunication media. For more information about currently University of Wisconsin courses (workshops, seminars and independent study), please contact the UW-DMC. All University of Wisconsin continuing education courses provide certificates of completion; CEUs will be entered automatically on a continuing education transcript maintained for you at the University of Wisconsin—Extension.

## **Transfer Courses**

For the professional electives category, you may transfer up to 15 CEU, one-quarter of the required 60 CEU, from programs sponsored by other colleges, universities, or professional societies. Courses from outside the University of Wisconsin system are evaluated on a case-by-case basis. You must provide information on course content, certification and/or a transcript of course credit.

To speed the transfer approval process, you have opportunities to study with other pre-selected institutions that are part of a worldwide network of disaster/emergency management training organizations. These include organizations such as the Asian Disaster Preparedness Center, the Pan American Health Organization, the Cranfield Disaster Preparedness Center, and many government agencies, non-governmental organizations (NGOs), university and United Nations training programs. For a more complete listing of opportunities, please request the current University of Wisconsin listing of collaborating institutions offering possible elective courses.

## **Grading and Evaluation**

Both evaluated and non-evaluated courses may apply toward the DM diploma. An evaluated course includes a written or oral examination, report, project, graded lessons or other personal evaluation. A non-evaluated course could be a continuing education seminar, workshop or short course. You are allowed a maximum of 20 non-evaluated CEU.

## **Timing**

The DM Diploma Program requires that you earn 60 CEU within five years after completing your first course. The DM Diploma Program thus allows you to use courses taken during the years prior to your registration. Five years after completion, a course can no longer be applied toward the DM diploma. Any UW-DMC course taken prior to registration in the DM Diploma Program is automatically included in your transcript, with no time limitation.

## Program Guidelines

The Disaster Management Diploma Program at the University of Wisconsin has been designed for practicing/emergency management professionals throughout the world. The DM Diploma Program allows the diploma candidate to combine traditional undergraduate and graduate college courses with a variety of continuing education programs—institutes, short courses, independent study, correspondence, and telecommunications courses.

## Curriculum Category Descriptions

The DM Diploma Program's four curriculum categories can assist you in formulating your program of studies. A DM diploma curriculum can combine studies in all four categories. These four educational divisions provide the structure for the DM Diploma Program.

- Professional updating .....not more than 12 CEU**  
to review disaster/emergency management fundamentals
- Professional advancement ..... at least 30 CEU**  
to explore professional and technical sector developments in which you have limited background and/or to increase your skills in areas of current sectoral responsibility
- Professional electives.....not more than 25 CEU**  
to increase capabilities for assuming new job responsibilities, including administrative, managerial, financial and sectoral areas new to you
- Outside interests.....not more than 10 CEU**  
To broaden your perspective on the role of disaster/emergency management in the environmental, political, cultural and social contexts

## Curriculum Requirements

As you prepare your study plan, remember the three basic educational components required for the DM diploma: core courses, professional electives and the professional study project. Please note the CEU requirements for each component of the curriculum. All requirements are subject to modification.

- Disaster/Emergency Management Core Courses .....25.0 CEU**  
Required: 5.5 CEU from UW-DMC self-study courses:  
*Principles of Management* and *Aim and Scope of Disaster Management*  
Plus: 19.5 CEU from other UW-DMC self-study courses
- Professional Electives.....25.0 CEU**
  - Disaster/Emergency* .....15.0 CEU**  
(i.e., disasters, refugees, health, engineering, etc.)
  - General* .....10.0 CEU**  
(i.e., management, foreign language, social sciences, etc.)
- Professional Study Project .....10.0 CEU**  
Disaster/Emergency  
100-hour, work-related project completed under guidance of UW-DMC-approved mentor
- Total.....60.0 CEU**



## Sample DM Diploma Program Plan

### Objectives

- Review the principles of disaster/emergency management and response activities
- Obtain knowledge of pre-disaster mitigation and preparedness
- Develop a background in physical planning for emergency shelters
- Learn the basics of a foreign language
- Increase capability and understanding of information management

Category	Course Title	Format	CEU
<b>First Year</b>			
Update	*Aim & Scope	self-study	2.0
Update	* Principles of Management	self-study	3.5
Update	Natural Hazards	self-study	3.0
Advancement	Disaster Preparedness (5 day)	seminar**	3.0
<b>Second Year</b>			
Update	Disaster Response	self-study	3.0
Advancement	Environmental Health	self-study	2.0
Advancement	Damage and Needs Assessment	self-study	3.0
Advancement	Cyclone Mitigations (5 day)	seminar**	3.0
Elective	Refugee Protection (4 day)	seminar**	2.4
<b>Third Year</b>			
Advancement	Emergency Vector Control	self-study	3.0
Advancement	Emergency Logistics (3 day)	seminar**	2.0
Advancement	Information Management	self-study	2.0
Outside Interest	Power Reading	corresp.	2.5
Elective	Negotiation Skills (3 day)	seminar**	2.4
<b>Fourth Year</b>			
Advancement	Disaster Shelter (5 day)	seminar**	3.0
Advancement	Professional Study Project	project	10.0
Elective	Basic Arabic	corresp.	19.2

\*Required core courses

\*\*Non-evaluated coursework (20 CEU max)

### Summary by Category

Updating (12 CEU max) .....	11.5
Advancement (30 CEU min) .....	31.0
Elective (25 CEU max) .....	24.0
Outside interest (10 CEU max) .....	2.5
<b>Total.....</b>	<b>69.0</b>

### Summary by Format

Self-study .....	21.5
Correspondence.....	21.7
Seminar/Workshop.....	15.8
Video .....	00.0
Credit.....	00.0
Study project.....	10.0
<b>Total.....</b>	<b>69.0</b>

## Questions/Answers

### 1. *Is it possible to complete all requirements of the DM diploma without traveling to Wisconsin?*

Most definitely. You may complete all diploma requirements through a combination of self-study, correspondence and independent study courses. You may combine courses available from the University of Wisconsin with courses from universities or collaborating disaster management institutions located near you.

### 2. *How long will I have to complete the DM diploma?*

You must complete the 60 CEU necessary for the diploma within five years of your enrollment or completion of your first course, whichever comes first. Sixty CEU is the equivalent of 600 hours of study.

### 3. *What about including courses I've already completed?*

Any UW-DMC self-study course already completed will be automatically credited toward the diploma. You may include other courses you have completed, if each course (1) meets your diploma learning objectives, (2) was not applied to another degree, and (3) meets the five-year limitation.

### 4. *How do I get started?*

To become a candidate for the Disaster Management diploma at the University of Wisconsin, please complete the diploma registration forms at the back of this booklet and return them with registration fee and any attachments.

### 5. *What courses can I study?*

With assistance from the UW-DMC, you can design a curriculum that meets your education needs. As part of the application process, you will set your own learning objectives. Your professional study project will be developed and reviewed under the guidance of a DM diploma “mentor,” who will be selected for his/her experience in your particular field of interest.

### 6. *What will the diploma cost me?*

The total costs will vary depending on the type of courses you select. At this time, basic program fees (which would provide 15.5 CEU) include:

DM Diploma Program registration fee: .....	\$100
UW-DMC required core courses:.....	\$175
Professional study project: .....	\$350

The remaining individual course fees (which would provide 35.5 CEU) will depend on your choice of institution and course format. UW-DMC self-study courses cost roughly \$25/CEU, correspondence courses average \$50/CEU, satellite and audiographics courses can cost more than \$100/CEU, and onsite workshops may cost from \$150-250/CEU, or more.

All UW-DMC fees and costs are payable in U.S. dollars—by check, money order, bank transfer, purchase order or credit card—to the University of Wisconsin – DMC.

## **Sample Self-Study Course Descriptions**

### *UW-DMC Required Core Courses*

#### **AA02 Aim and Scope of Disaster Management**

This basic DMC course defines the scope and objectives of the disaster management field, considers concepts and terms, differentiates between natural disaster assistance and refugee operations, examines tools and methods, and looks at some technology appropriate to the field. The self-study course consists of five lessons with self-graded examinations and one university-graded examination.

#### **AA04 Principles of Management**

This course provides an overview of management from a disaster and emergency standpoint, looking at issues such as program planning, decision making, information management, program supervision, monitoring and control, personnel, and leadership. It also examines issues such as motivation, group dynamics, managing work groups, structure and organizations, and criteria for addressing a program. The self-study course consists of 15 lessons with self-graded examinations and one university-graded examination.

### *UW-DMC Elective Core Courses—Examples*

#### **BB02 Natural Hazards: Causes and Effects**

This basic DMC course examines in detail the physical characteristics, geographic distribution, impact, response, and mitigation of natural hazards such as earthquakes, tsunamis, volcanoes, tropical cyclones, floods, drought, desertification, and deforestation. The self-study course consists of nine lessons with self-graded examinations and one university-graded examination.

#### **BB04 Disaster Preparedness**

Disaster Preparedness provides a look at the prerequisites for preparedness planning, action plans and procedures, training issues and models, preparedness roles and responsibilities, and public awareness and warnings, as well as providing preparedness action plans and checklists. The self-study course consists of eight lessons with self-graded examinations and one university-graded examination.

#### **BC02 Environmental Health Management After Natural Disasters**

Study natural disaster effects on environmental health, pre-disaster health measures, measures to take during the disaster and in the aftermath, and rehabilitation measures. The course also examines factors to consider for effective management. The self-study course consists of five lessons with self-graded examinations and one university-graded examination.

#### **BC08 Epidemiological Surveillance After Natural Disasters**

This course provides an overview of risk factors for communicable diseases after disasters. It also considers the post-disaster potential for communicable disease epidemics, examines methods for setting up systems for the surveillance of communicable and selected non-communicable diseases, and considers the operational aspects of communicable disease control after disasters. The self-study course consists of five lessons with self-graded examinations and one university-graded examination.

#### **BB06 Damage and Needs Assessment**

This course examines common approaches to disaster assessment and looks at assessment teams, survey methods, tools, and techniques. The course covers procedures for handling emergency supplies and services, housing, agriculture, lifelines, and droughts and famines, including the establishment of surveillance systems after a disaster. The self-study course consists of 12 lessons with self-graded examinations and one university-graded examination.

# Disaster Management Diploma Registration Form

Professional Information (Use a separate piece of paper if needed)

1. *Experience in disaster/emergency management?*

<u>Dates</u>	<u>Country</u>	<u>Activities/Position</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

2. *Years of formal education?*

- 0-6 years       7-12 years       13-16 years       more than 16 years

3. *Educational degrees*

<u>University/School</u>	<u>Major or field of study</u>	<u>Degree/Year</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. *Continuing education*

If you have completed courses, please list a few here, with the most recent first. Include credit courses, short courses, correspondence courses.

<u>University/Organization</u>	<u>Topic/Title</u>	<u>CEU/Credits</u>	<u>Date</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

5. *DM Diploma program objectives*

Please list up to five objectives you would like to achieve as part of your program of study.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

*(This form may be reproduced)*

## Disaster Management Diploma Registration Form

### Payment Information

(Payable to University of Wisconsin-DMC in U.S. funds please)

- Check enclosed
- Purchase order enclosed
- Credit card payment
  - VISA       MasterCard       American Express

Cardholders name \_\_\_\_\_

Card number \_\_\_\_\_ Expiration date \_\_\_\_\_

Total Payment Enclosed .....\$ \_\_\_\_\_

- Diploma registration fee.....\$100
- UW-DMC core courses (note courses below) .....\$ \_\_\_\_\_
- Other UW-DMC self-study courses (note courses below) .....\$ \_\_\_\_\_

or

- Special enrollment package (see sidebar and note courses below) \$850

Course No.	Course Name	Cost
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____

*(This form may be reproduced)*

# UW-DMC

College of Engineering  
Department of Engineering Professional Development  
University of Wisconsin-Madison/Extension  
432 North Lake Street, Madison, Wisconsin 53706 USA

## The Disaster Management Diploma Program *University of Wisconsin—Disaster Management Center*

Cost-effective educational opportunities to

- refresh basic skills
- upgrade and advance technical knowledge
- prepare for new responsibilities
- earn recognition through completion of a coordinated, approved and guided program of studies

**Please route to:**

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## **Nature of the Proposed Courses:**

The following eight-courses are the core of the emphasis area. These courses build upon the strengths and interest of the faculty in the area and will be offered within the Department of Landscape Architecture and Urban Planning curriculum. The set of courses provides a basic understanding of the entire range of hazard and disaster related issues. For example, the set of courses considers both theoretical and applied, research and application, policy and implementation issues associated with both natural and technological hazards at the micro, mid-range and macro levels of analysis.

### **PLAN 650     DISASTER RESPONSE PLANNING**

This course is an introduction to the basic principles of emergency planning and crisis management. Training in basic planning and management skills is presented based upon the findings of applied research. The interface of local, state and federal planning systems are discussed.

### **PLAN 641     ENVIRONMENTAL PLANNING ADMINISTRATION**

Environmental planning, management and policy are examined. Environmental hazards are examined and the impact of various policy, structural and non structural management mechanisms are presented.

### **PLAN 689     RISK ANALYSIS AND HAZARD MITIGATION**

The course focuses upon the emerging field of risk analysis and perception. The relationship between hazard, risk, and vulnerability are discussed in relation to mitigation.

### **PLAN 689     DISASTER THEORY AND RESEARCH**

Specific theoretical issues involved in the study of natural and technological hazards and disasters are examined, and research findings that are relevant to these theoretical perspectives are presented. Theories presented range from micro to macro conceptual levels.

### **PLAN 689     ORGANIZATIONAL AND COMMUNITY PLANNING AND RESPONSE**

Organizational and community disaster planning and response are examined. Social and behavioral findings from the research literature are presented in order to understand the nature of crisis and disaster behavior. Policy and planning applications are discussed.

### **PLAN 689     HAZARD MITIGATION AND RECOVERY**

Community and organizational recovery from disaster and the linkage of recovery activities to mitigation efforts are discussed. Recovery policies, processes and outcomes are examined at the local, state and federal levels. Issues related to local adoption of mitigation measures are considered.

## **PLAN 689 ENVIRONMENT, TECHNOLOGY AND CHANGE**

The impact of technological changes upon the social and physical environment are examined. The nature, characteristics and consequences of technological hazards are analyzed.

## **PLAN 689 SPECIAL TOPICS IN HAZARD PLANNING AND RESEARCH**

Various specific topics related to hazard and disaster mitigation, preparedness, response and recovery are presented.

### **Proposed Two Year Sequence of Courses**

#### ***YEAR ONE: FALL***

PLAN 650 Disaster Response Planning  
PLAN 689 Risk Analysis and Hazard Mitigation

#### ***YEAR ONE: SPRING***

PLAN 689 Organizational and Community Planning and Response  
PLAN 6XX Hazard Mitigation and Recovery

#### ***YEAR TWO: FALL***

PLAN 650 Disaster Response Planning  
PLAN 6XX Disaster Theory and Research  
PLAN 6XX Special Topics in Hazard Planning and Research

#### ***YEAR TWO: SPRING***

PLAN 641 Environmental Planning Administration  
PLAN 689 Environment, Technology and Change

Additional courses relevant to the emphasis area are offered by other departments in the university. Among these courses are the following

FRSC 651 Geographic Information Systems  
GEOG 619 Human Impact on the Environment  
GEOG 676 Natural Hazards  
GEOG 696 Geomorphology and Remote Sensing  
RENr 664 Coastal Zone Management  
SOC 620 Human Ecology



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# **Aim and Scope of Disaster Management**

## **Professional Review Board**

E.V. Bighinatti  
Katheran Parker  
Robert White  
Frederick C. Cuny, Principal Author/Editor

## **Disaster Management Center**

University of Wisconsin-Madison, U.S.A.

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Disaster Management Center  
Department of Engineering Professional Development  
University of Wisconsin-Madison  
432 North Lake Street  
Madison, WI 53706 U.S.A.

The text was prepared by Frederick C. Cuny of INTERTECT. The Professional Review Board included E.V. Bighinatti, American Red Cross; Robert White, UNHCR-Tanzania; and Katheran Parker, Consultant on Disaster Management.

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# **Natural Hazards: Causes and Effects**

Professional Review Board

Susan Tubessing

Ian Burton

Paula Gori

Eddie Perez and Paul Thompson, Principal Authors/Editors

Disaster Management Center

University of Wisconsin-Madison

432 North Lake Street

Madison, Wisconsin 53706 U.S.A.

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Disaster Management Center  
Department of Engineering Professional Development  
University of Wisconsin-Madison  
432 North Lake Street  
Madison, WI 53706 U.S.A.

Technical text prepared by Eddie Perez and Paul Thompson of INTERTECT. Professional Review Board included Susan Tubessing, Natural Hazards Center-University of Colorado; Ian Burton, University of Toronto; and Paula Gori, United States Geological Survey.

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# Principles of Management

## **Professional Review Board**

W. Nick Carter  
William Nitzke  
Katherine S. Parker  
Frederick C. Cuny, Principal Author/Editor

**Disaster Management Center**  
University of Wisconsin-Madison, U.S.A.



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Department of Engineering Professional Development  
University of Wisconsin-Madison  
432 North Lake Street  
Madison, WI 53706 U.S.A.

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# Disaster Preparedness

## **Professional Review Board**

W. Nick Carter  
Paul Thompson, Principal Author/Editor

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University of Wisconsin-Madison  
432 North Lake Street  
Madison, Wisconsin 53706 U.S.A.

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Text prepared by Paul Thompson of INTERTECT. Professional Review Board included W. Nick Carter, and the staff of the USAID Office of Foreign Disaster Assistance.

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# Disaster Assessment

## **Professional Review Board**

Giles Whitcomb  
Claude de Ville de Goyet

## **Principal Author/Editor**

Frederick C. Cuny

**Disaster Management Center**  
University of Wisconsin-Madison  
432 North Lake Street  
Madison, Wisconsin 53706 U.S.A.

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For permission to reprint, contact:

Disaster Management Center  
Department of Engineering Professional Development  
University of Wisconsin-Madison  
432 North Lake Street  
Madison, WI 53706 U.S.A.

Text prepared by Frederick C. Cuny of INTERTECT. The Professional Review Board included Claude de Ville de Goyet, Pan American Health Organization and Giles Whitcomb, United Nations Disaster Relief Office.

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# Disaster Response

## **Professional Review Board**

Robert Gersony  
Rudolph von Bemuth

Paul Thompson, Principal Author/Editor

**Disaster Management Center**  
University of Wisconsin-Madison  
432 North Lake Street  
Madison, Wisconsin 53706 U.S.A.

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Department of Engineering Professional Development  
University of Wisconsin-Madison  
432 North Lake Street  
Madison, WI 53706 U.S.A.

Text prepared by Paul Thompson of INTERTECT. Professional Review Board included Robert Gersony, consultant in disaster management, and Rudolph von Bemuth, CARE.

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