ANNUAL HIGHER EDUCATION CONFERENCE REPORT

June 28–29, 2000

Emergency Management Institute
Emmitsburg, Maryland

Annual Higher Education Conference
June 28-29, 2000

Higher Education Project

One of the goals of the Federal Emergency Management Agency (FEMA) is to encourage and support the inclusion of emergency management-related education in colleges and universities across the United States. FEMA believes that in the future, more emergency managers in government, as well as in business and industry should come to the job with college degrees in emergency management. FEMA would like to see an emergency management-related degree program in every State of the Union by the year 2001.

To further this end, FEMA's Emergency Management Institute (EMI) in Emmitsburg, Maryland, has undertaken several projects which promote college-based emergency management education. An annotated listing of colleges and universities in the United States that teach one or more emergency management courses ("The College List") is available. This document (available at www.fema.gov./emi/edu) describes courses and programs offered, and provides point-of-contact information for each institution listed. This listing is now routinely provided to emergency management personnel interested in continuing their education, as well as to academics wishing to develop their own emergency management-related courses.

A compilation of course syllabi and outlines of existing emergency management-related courses taught in academia today is also available. More than 100 course outlines or syllabi are included, and this compilation is free of charge to any college wishing to investigate the development of emergency management-related courses.

Next, in partnership with the academic community, EMI developed a prototype emergency management curriculum consisting of classroom-based, upper division (junior/senior), baccalaureate-level courses. EMI is now working with a variety of colleges and universities to develop this curriculum, as well as other courses which expand university-based hazards and emergency management education. Recently, EMI developed a prototype curriculum for associate degrees in emergency management based on existing EMI training courses, which may be used or adapted by community colleges.

Purpose of Conference

The purpose of EMI's Emergency Management Higher Education Conference is to bring together Higher Education Project course developers, representatives of colleges and universities that have hazard, disaster and emergency management programs, and representatives of schools that are actively seeking to develop and implement such programs. Attendees were brought together to discuss the needs of potential course users and emergency management degree program developers, as well as general items of interest pertaining to hazards, disaster and emergency management higher education.

Attendees review the meeting agenda and select the workshops in which they will participate.

Opening Remarks by Kay C. Goss, CEM^{Ò}
FEMA's Associate Director for Preparedness, Training, and Exercises

Third Annual Higher Education Conference

Emergency Management Institute
Emmitsburg, Maryland

June 28, 2000

[Edited]

Good morning everybody. It's a pleasure to be here. This is my favorite activity of the year, so I'm glad it finally arrived. I've been counting the days and weeks until we got together again. This is our third annual higher education conference. It gets bigger and better every year. The President, Vice President and Director Witt are all very proud of our activities here and very proud of the work you do day-in and day-out in building the professionalism of our jobs.

I wish to thank each of you for taking the time to do this because I know it's really hard to schedule to fly to Washington, spend two whole days with us, and then fly back home. It takes about four days out of your year, but I know you do so much with the other 361 days, I know it will work out okay. I think this is a great opportunity for all of us to get together in these interactive sessions. It is a great opportunity for those of you who are developing courses to see, meet, and hear the anxieties of those of you who are delivering our courses. I also think it's an excellent opportunity for those of you who are looking toward developing programs to talk with those of you who have successful programs.

I know that this conference, like the other two we have had, will encourage us all to do more and better work and that you will feel that you have a large support group. I think that truly we are each other's support system in this, and I consider myself your chief cheerleader. That's why I wanted to be among the first to greet you today and among the last to say farewell as you leave tomorrow evening. We have in this room, representatives of colleges and universities that have successful, established programs, those of you who are just beginning to develop programs, and those of you who are just tentatively thinking about developing those programs.

I hope that our enthusiasm will be contagious to those of you who are tentatively thinking about it, because there are people in this room who have done everything from fight their way to get a certificate program or a bachelor's program, or a master's program, or a Ph.D. program, to those who had no trouble establishing it. Like my friend Mary Ann Rollans at the Arkansas Tech University; she just snaps her fingers, and things happen magically. I truly appreciate what some of you have to go through to get the support you need to put together a new degree program.

Collectively, there are 36 States, Puerto Rico and Canada represented here today. I think that's pretty impressive and speaks volumes about the importance of what we are doing and the leadership you are providing.

Our newest partner in this higher education project is Istanbul Technical University. We just yesterday got the funding for them to participate in this conference. They did not have an opportunity to attend this conference, but they will join us next year. Later this summer, they will participate in our building design institute, which will be their first official undertaking here in

the U.S. We are looking forward to having them. We may go there on August 17, which is the anniversary of the earthquake they had last year, the one in Izmit.

This project, and all the work you are doing throughout the country, is attracting a lot of international attention. I was contacted by a private sector group called M2T2, the Millennium Multi-cultural Training Technology Corporation. They have established a network among universities in Africa and are interested in our project here. Their program has really taken off since all the flooding in Mozambique.

I am pleased to tell you that, as of today, the count and the amount is 66 emergency management related academic programs across the country, in 47 states. I'm interested in expanding that more, specifically into the historically black colleges, the tribal colleges, and the Hispanic colleges. Also, this project is a good news project, and it is a win-win project.

But we did have our first disappointment this year. Wyoming's Laramie Community College became discouraged and decided to no longer offer our emergency management program. We are looking to establish another program at an institution in Wyoming along with new programs in Montana and Rhode Island. Then we will have our goal of a program in every state by the year 2001. There is quite a bit of activity in Montana and more in Rhode Island. If any of you have contacts in Montana, Rhode Island or Wyoming, I hope you will give them encouragement, suggestions and advice for moving the program forward in those states. Dr. Wayne Blanchard will give you the statistical information on this. He has more counts and more amounts than I do. He is your preacher, and I am, more or less, your cheerleader.

Our Higher Education project is always building. I am really proud of the staff here. I want to say a special thanks to Steve Sharro who has made this project a priority as our acting superintendent and acting division director. Also, a special thanks to John Peabody for being such a good leader and Wayne Blanchard, Juliann Frantz and Linda Straka. They are dedicated individuals and I hope they have been helpful to you in that process.

We are doing a little bit of a new project, since I reported to you last year. We are working on feeding you informed students with our K-12 project. We are developing a curriculum in emergency preparedness for school children and partnering with the National Fire Protection Association (NFPA), the Maryland Emergency Management Association, and the Arkansas Emergency Management Association on this. By the end of this year we should have a prototype that we can spin out to every State.

This spring we did a pilot project in Bowie, Maryland. The National Fire Protection Association has something called Risk Watch. It is a curriculum that is really a personal injury prevention curriculum. It is glitzy, exciting, and effective. We have asked them to add a component on natural disasters, and we are working with them to develop it. We have tried it in suburban Maryland, and it was quite successful. We are going to try it in a small, rural county in Arkansas this fall and then put our findings together. Hopefully, next year you will be able to take a look at this and see if you think it is well founded. We will have done the research and the early exploratory work on the development of this curriculum.

Now, I think there are a lot of reasons why this is a good time to build this program and why you have been successful. First, there is no way to overestimate the importance of your willingness to simply dig in and do the work and the willingness of colleges and universities to take a realistic look at the huge need that exists out there.

Alan Walker mentioned dorm fires earlier. Senator Frank Lautenberg from New Jersey, right after the Seton Hall University fires, introduced legislation that would provide $100 million to make university dorms disaster resistant, including sprinkler systems and smoke detector systems. We think this is really good in that it looks at the need for a national program of disaster management for university campuses.

In addition to our Higher Education project, FEMA has a disaster resistant universities project. And, of course, the U.S. Fire Administration is pushing, as their number one priority, fire prevention. So if we all work together, we think that with some proper funding from Congress, we can encourage all of our universities to work in this area.

Many universities (I'm sure all those that you are affiliated with) have disaster recovery committees or emergency preparedness committees and have a plan in place. Lynn Canton, our new executive director at FEMA and myself, are starting a little pilot project. Alan Walker at Western Michigan University, and the State University of New York at Stonybrook have agreed to be a part of the pilot. They will work with FEMA, the State, and local emergency management in their college communities in putting together an emergency committee, developing a plan, and then taking those initial steps to make their university community disaster resistant. Also, next year, hopefully, we will be able to report to you on those two pilot projects and decide where we want to take them.

I think another reason why we have had this success together is because everybody is now recognizing the importance of emergency management. And that is true for a number of reasons. First, it is big business; a lot of money is involved with disaster management. The rising cost and the frequency of disasters are just astronomical. During the 1990's, FEMA declared 460 major disasters. We have had such severe weather, and the weather phenomenon is changing.

The National Weather Service has said that the hurricane season this year is going to be above average in severity. Dr. William Gray says that it's going to be really severe. He said, we could have 12 systems of hurricane proportions, 8 of which will turn into definite hurricanes, 4 of which could hit along the coast of the U.S.

FEMA did a poll from Massachusetts to Texas about what people had done to prepare for this upcoming hurricane season. This was done right on the heels of the devastation suffered last year in Florida, the Carolinas and up the coast. We found that most people had done nothing since last year. Most of the people knew what they needed to do, and they could even recite it. They had gotten our preparedness message; they just hadn't acted on it.

Later in the questions we had framed it such that the expense would be approximately $2,000 for retrofitting an existing residence. We asked, "If you knew it would cost about $2,000 to retrofit your home, would you do it?" Three quarters of the people surveyed said they would do it, if they knew the cost. That is the part of the message we have to get out; that it is affordable. In the U.S., when we consider everything spent at each level; Federal, State, local, and in the private sector including the insurance industry-we spend about $1 billion a week. That covers managing emergencies, preparing for them, and recovering from them. So it is big business. Worldwide that figure jumps to $5 billion a week.

According to the International Strategy for Disaster Reduction, the 53 greatest natural disasters in world history occurred between 1990 and 1999. So those alone have resulted in almost $500 billion worth of economic losses. In addition to that, it takes a heavy human toll. On average, 510 people in the U.S. die every year because of disaster and globally that goes up to an average of 128,000 a year. Last year it was almost 140,000. It does indicate that it is getting worse.

Emergency managers are faced with a tough job having to work with a broad range of Federal, State and local partners to lower the vulnerability of our citizens, particularly those most at risk to disaster. By investing in solid educational and training programs, we can ensure that they will have the tools they need to perform this very important work. In fact, I am prejudice; I believe that there isn't a problem in human society that can't be solved with education, training, and more information. So when we have this increasing severity, I think that FEMA's work on a day-to-day basis is extremely important.

Another factor in our success is the proactive development of such high quality courses. I am particularly proud of our course developers and the work that all of you are doing. The courses are being developed very rapidly, but I don't think we are sacrificing quality, and I want to thank you for that. Together we have developed 10 college-level courses and we have another 10 under development. This is very exciting and very positive. We have received some very good suggestions from you on how we can improve existing and future courses. All of the courses that have been developed to date are available in electronic format-CD-ROM, and also via our higher education Web site. We have taken steps to insure that your recommendations are worked into all phases of our programs. Please keep your suggestions coming, because we need them and appreciate them.

The third factor is the students and their demand for emergency management. There is a growing interest in emergency management education because of the challenging opportunities the profession offers. I am glad that we are going to have an opportunity to hear from those students during this conference. Our students are finding good jobs. I often brag on Arkansas Tech University. Their first graduate got a job right away for $50,000 a year. The second graduate became the fire chief of a major city in Arkansas.

I remember last year Jack Carrol from George Washington University talking about how his graduate students were getting offers before graduating just because they were enrolled in his programs. I also remember hearing how the program at Oklahoma State University became the University's largest graduate program within about a year's time of being established. The final and most important key to our success is the growing professionalism in the job. Increasingly, we have people who are going into emergency management who are actually emergency managers by degree, education, and life-long interest.

Our vision is that we have children in the first, second, and third grades saying, after seeing something on CNN or EENET about disaster management, "I'd like to be an emergency manager." Children often say that about fire fighters and police officers. If they say that about emergency managers, then I think our work will have been successful. More people in mid-career are returning to college or to EMI to enhance their skills and build their knowledge. That is a tribute to your hard work in this higher education project. We have a new breed of professionals; this is raising the standards.

In the meantime, we are working at FEMA, with the State emergency management systems. Eric Tolbert of North Carolina and Mike Austin of Arizona, who co-chair the preparedness committee of National Emergency Management Association, are leading the way toward an accreditation process. We hope our Capabilities Assessment for Readiness assessment piece will be a part of that overall accreditation and standards setting. As those standards go into place over the next few years, that will also build the market for higher education programs in emergency management.

So everything is going well out there. We have a few challenges that will keep us quite busy over the next several years, but I think we have only just begun.

Sometimes I like to quote Winston Churchill who said, "This is not the end. This is not even the beginning of the end. This is just the end of the beginning." And I think that is essentially where we are right now. I thank you for being here. I thank you for the work that you are doing. I think you are making a real difference. Keep up the good work. Keep the faith. The best is yet to come!

Ms. Goss fields questions after her speech and conducts one-on-one talks with conference attendees.

Status of Emergency Management Higher Education Project

Presented by Dr. Wayne Blanchard, CEM® (wayne.blanchard@fema.gov)

Dr. Blanchard began his presentation by stating the three goals of the Emergency Management Institute's (EMI) Higher Education Project: 1. Enhance the Emergency Management Profession and Study of Hazards, Disasters, and Emergency Management. 2. Support the Development and Maintenance of College and University Programs. 3. To Have Degree Programs in Every State by 2001.

Recent large-scale disasters, such as Hurricanes Hugo and Andrew, proved that existing resources were not able to meet the emergency demands of these disasters. The emergency infrastructures in these situations were severely taxed, showing a weakness in the emergency management "system." In response to these needs EMI refocused its programs to offer less philosophy and more operational skills; but that was not enough. There is a definite need for a cadre of professionals at every level of government and within the private sector who can bring to an organizational management team requisite education and training.

One problem facing the "professionalization" of Emergency Management (EM) is that the current stereotype of an emergency manager is a middle-aged, white, male who does not have a college degree. He has entered EM as a second or third career from the fire, police, or military professions, and he has obtained the EM position without any EM knowledge, skills, or abilities. Dr. Blanchard said, "We are working to create the next generation of emergency managers who will be college educated, more professional, have a better knowledge base, be younger, more diverse, and culturally sensitive. We want them to choose Emergency Management as their profession of first choice, not come to it later in their career."

The current EM knowledge base is experiential, through consensus and reactive to disasters. The next generation of emergency managers will bring a scientific knowledge base to the job, will have chosen the profession as a career, be pro-active, life-long learners and join professional associations.

Risk Assessment skills are central to the next generation of emergency managers; they must be able to conduct community social vulnerability analysis. This will be accomplished through building the profession and teaching our graduates to create disaster-resilient communities.

The economic environment, the natural environment, and the social environment need to be brought more into the mainstream of what emergency management does. The hope of many is that the role of emergency management will be equated with building disaster-resilient communities. Educating future emergency managers to use the "social vulnerability" model as well as the traditional "technocratic" model will help to build the profession.

Higher Education Project activities include maintenance of the college database/list, compilation of EM course syllabi, proposals compendium, letters of support, the annual conference, intern opportunities, course development and Learning Resource Center (LRC) access. The material available at the LRC is an excellent resource of new information for course developers, instructors, and students alike.

There is a definite need today for associate, bachelor and graduate degree programs. The courses being developed pursuant to this need are aimed at college students, and thus they are academic in nature and are not advanced training courses.

The higher education courses that exist are all upper division and classroom-based. We are striving to create courses that are ready-to-teach with more interactive student involvement. There are 11 existing courses and another 9 under development. Thirty-two States and Puerto Rico have Emergency Management programs; nine States are investigating EM programs and six States have EM-related programs (*For current statistics see "Higher Education Slide

Presentation: on this Web site). All 11 existing courses are available via the Internet [http://www.fema.gov/emi/edu]; CD-ROM; and the National Technical Information Service at the Department of Commerce. Approximately three courses are produced per year; however, this rate can change due to funding.

Dr. Blanchard concluded by thanking all the attendees for all the hard work they have done in the past and urged them to forge on into the future.

The PowerPoint slide show that accompanied Dr. Blanchard's presentation can be found on the Higher Education Project Web page

http://www.fema.gov/emi/edu

Status of Fire/Emergency Services Higher Education Project

Presented by Edward J. Kaplan, Education Specialist, USFA (ed.kaplan@fema.gov)

Mr. Edward Kaplan began his presentation by explaining that the U.S. Fire Administration (USFA) administers the Federal fire programs for the U.S. Government, and is a part of the Federal Emergency Management Agency (FEMA). The USFA offers a variety of programs in public fire education, sprinkler research and other applied technologies. Within the USFA is the National Fire Academy (NFA), which is responsible for delivering training to the Nation's fire service.

Mr. Kaplan's major responsibility is NFA's higher education program, including the Degrees at a Distance Program. This higher education program is an upper-level independent study program comprising 300- and 400-level courses delivered by seven U.S. colleges and universities with which NFA has agreements.

Mr. Kaplan's goal is to build a national network of schools offering fire science degree programs. In 1999, NFA hosted 65 attendees at its first Fire and Emergency Service Higher Education Conference, which provided the goal to: establish an organization of post-secondary institutions to promote higher education and to enhance the recognition of the fire and emergency services as a profession and thus to reduce loss of life and property from fire and other hazards.

Mr. Kaplan stated that the "other hazards" portion of this statement means emergency management. While it's too soon to call it a fire and emergency management consortium, his ultimate vision is to have a convergence of these two programs. Mr. Kaplan is aware that emergency management degrees are the "hot" degree programs right now, and there are many fire science programs currently trying to incorporate emergency management components. Mr. Kaplan says it is only a matter of time before the union does exist.

Two additional objectives were formulated at this meeting. The first is to develop and recommend initiatives that would support the mission of Fire and Emergency Services higher education to include:

- Curriculum development, support, and standardization;
- Promotion and support of networking;
- Basic and applied research; and
- Promotion of higher education as a component of professional development.

The second objective is to establish a partnership with FEMA/USFA and this Nation's accredited institutions offering higher education degrees in fire and emergency services. USFA is trying to build a higher education network modeled after NFA's Training Resources and Data Exchange (TRADE) program. There would be co-chairs elected: one from a baccalaureate degree program and one from an associate degree program in each of the 10 FEMA regions. They would meet and set standards of education.

The outcomes of this year's Fire and Emergency Services Higher Education Conference:

- Improved collaboration between the academic fire programs and national and State fire service leaders.
- Recommended model fire science curriculum:
    - Fire Prevention
    - Building Construction
    - Fire Protection Hydraulics
    - Introduction to Fire Protection Systems
    - Introduction to Fire Science
    - Fire Behavior and Combustion
- National Survey of Academic Fire Programs.

The ultimate goal is to foster partnerships between training and institutions of higher education where certification and academic credits are understood and accepted by both parties. Mr. Kaplan noted that there is a leadership void at the State level in fire science; many fire science degree program coordinators do not talk to each other; consequently, NFA is trying to get the directors of State fire service training to sponsor leadership programs to bring fire science

coordinators together where they can begin to map Statewide curriculums. Mr. Kaplan would then like to see open dialogue between the degree programs and the State fire service training coordinators.

Mr. Kaplan pointed to the following online resources for follow up information:

http://usfa.fema.gov/nfa/tr_ddp.htm
http://usfa.fema.gov/nfa/tr_high.htm
http://www.fema.gov:8080/~USFA
http://www.firedawg.com

He noted that the last Web site offers a compendium of associate and baccalaureate degree programs by State and those institutions offering degrees through distance learning. Mr. Kaplan said that the Fire and Emergency Services Higher Education Consortium's goal is to foster the collaboration between fire service training and higher education. And, with that in hand, he would like to see expand cooperation with emergency management degree programs.

Group 1: Breakout Sessions with Course Developers

Marketing Programs/Building Student Interest
Moderator: Carter Jones

Marketing Programs

Some of the issues in attracting students include:

- Tough questions that can't be answered; e.g., "What kind of a salary can I expect as an emergency manager?" Because there aren't many new jobs as emergency managers.

- Programs have to be flexible. In some areas of the country, when the wildfire season occurs, courses can't be offered because emergency management specialists, law enforcement personnel, and fire personnel work day and night and are unable to take the courses. Therefore, the courses may have to be offered seasonally. Also, many working professionals have to take the courses at night or on weekends.

- The political atmosphere does not always encourage career development. Innovative ways must be developed to get around the political atmosphere.

- Bureaucracy hurts in servicing students. For example, in many institutions it is a mammoth undertaking just to register. The whole process needs to be streamlined.

- State emergency people do not always support our program. Much work needs to be done in this area. Channels of communication must be established and maintained.

- Many of our own representatives in institutions are in competition with each other.

- There is a need for course exchange in order for some programs to survive.

- Professional development: We need to look at health care facilities and safety people in industry, mental health personnel, fire, police, emergency management specialists, Red Cross, Salvation Army, ham radio operators, and accreditation opportunities for educators, principals, and assistant principals.

- Course developers need to do a better job of communicating with EMI, giving more input so that EMI can advertise.

- Demographics play a significant role. The larger, urban areas have more money and can attract more students. The rural areas don't have that drawing capability.

- Institutional resources—many institutions have excellent faculty and money to spend.

- Matriculation—that is an issue that must be addressed concerning courses and transferring to other institutions.

Building Student Interest

- Clear, focused advertising is needed. The program must attract students who are asking themselves, "What do I want to do and where do I want to go?"

- Innovation, energy, and excitement are key ingredients to the recruitment and retention of students.

- It is necessary that outside experts come in and reinforce our programs.

- Case studies are important, exploring recent events as well as past ones.

- Also important are: student clubs, interactive opportunities, internships with pay.

- Realistic drills and exercises are important. Suggestion: Students could observe a simulated hurricane, tornado, or terrorist event response.

- New technologies: geographic information systems and components.

Public Administration and Emergency Management Course

Moderator: Dr. William Waugh, Jr. (wwaugh@gsu.edu)

This course was developed for use by emergency management or public administration professors. Topics covered include: intergovernmental and private sector relations, paying for large-scale disasters, land-use planning and hazards, legal and liability issues, and implementing emergency management policies. This course is currently available.

This group discussed:

- Undergraduate, basic, public administration classes dealing with issues such as the amount of American government that necessarily needs to be discussed in a class dealing with public administration and emergency management. One must understand the intergovernmental system fundamentally to understand how emergency management operates and how to deal with such things as disaster declarations and how governments interact at the local, state, and federal levels.

- Basic concepts of public administration and the relationship to emergency management.

- Concepts such as acceptable risk, organizational culture, how military organizations may deal with non-profits, how police departments may deal with fire departments, and the differences of the organizational cultures.

- Issues such as disaster insurance—why we don't rely on that rather than the system we have currently.

- How basic things like planning and land use planning would be necessary in certain courses and how important computing would be. It has been decided that in teaching public administration classes, administrators need only be computer literate; they don't have to be computer experts.

- Practical side of how to get lists of videos. There is a wealth of videos that are useful in class; e.g., the Nova series on the Spanish flu outbreak of 1918, the 1906 San Francisco earthquake, and the Three Mile Island video.

- Professionalism—what it means in terms of the state of the profession of emergency management, where we are going, how to deal with students, and how that fits into the context of other professions.

A Social Vulnerability Approach to Emergency Management Course
Moderators: Dr. Elaine Enarson (enarson@uswest.net) and Dr. Ben Wisner (bwisner@igc.org)

This course development project is being led by Dr. Elaine Enarson of Metropolitan State University, Denver and will support emergency management curriculum. Topics include introduction to vulnerability analysis, social construction of disaster vulnerability, social power and constraints in disaster, implications and practical applications, and reducing vulnerability; change strategies. The course is expected to be available March 2002.

This group discussed the following:

- Social vulnerability as an alternative approach to emergency management and how that has a lot of implications for how emergency managers relate to communities, how communities in turn relate and become involved in the planning process and the mitigation process, the kinds of classes that need to be designed, and the kinds of conversations in community dialogs that emergency managers need to have.

- Root causes that might create a differential distribution of risk in any society. The question "What is it that is so deeply rooted in our culture that puts certain key groups of people more at risk than others?" was posed. Factors such as racial inequality, gender-based inequality, and economic inequality were mentioned.

- Starting from the notion of root causes, the group then looked at social and structural trends that exacerbate conditions. These include global and environmental degradation and the international political economy. There are factors such as hyper-urbanization, the global rise in female-heads of households and epidemics like AIDS, that are creating more and more crises for the work at hand. That puts certain groups of people in risky, unsafe living conditions. The point is to break the concept that special people have special needs. The vulnerability approach looks at these as social sets of relationships between people which can and need to be changed.

- The need to balance the notion of vulnerability with capability, resourcefulness, and the strength of local people.

- Creative ways to work; e.g., using the community policing model. The vulnerability approach opens up different ways of thinking about interventions and organizing.

- Need for more case studies and the real concern that students need to understand that these issues are not something that is happening in some other part of the world. The United States is part of the global community, and these same factors are at work here.

- Need for a course on social vulnerability that draws on concrete case studies not only of the impact of disasters of various kinds on vulnerable populations but on how vulnerability is constructed and the long-term recovery needs of people who live in risky situations.

Accreditation of Emergency Management Programs

Presented by Alan Walker, Ph.D., Western Michigan University
(alan.walker@wmich.edu)

Dr. Walker began his presentation by explaining that accreditation in foreign countries is usually established and maintained by a central government bureau. By comparison, in the United States, public authority in education is constitutionally reserved to the States. This accreditation system is a voluntary, nongovernmental

evaluation performed by associations that recognize educational institutions and programs within institutions. There are two fundamental types of accreditation in the United States: institutional accreditation and specialized accreditation.

Institutional accreditation is granted by regional and national accrediting commissions of schools, i.e., Middle States Association of Colleges and Schools, Western Association of Schools and Colleges, and the Accrediting Council for Independent Schools and Colleges. Committees or commissions within national professional associations accredit professional and occupational schools and programs within colleges and universities; e.g., The American Bar Association, American Medical Association (AMA), and the American Board of Funeral Service.

Many organizations that conduct accreditation hold membership or are recognized by one or both of the following organizations: the Association of Specialized and Professional Accreditors (ASPA) and/or the Council for Higher Education Accreditation (CHEA). ASPA is an organization whose members are specialized and professional accreditors. ASPA sets national educational standards for entry into approximately 40

specialized disciplines. CHEA acts as the national policy center and clearinghouse on accreditation for the entire higher education community.

The first professional association, the AMA, was founded in 1847. At about this time, States began enacting licensing statutes intended to protect the professions and to combat fraud and the low quality of educational programs. Over time, accreditation became a collaboration among practioners, educators, and regulators. A good example of this partnership is seen in the accreditation of Funeral Service Education (Appendix C, pp. 11-12).

Dr. Walker then spoke about the history of accreditation for fire-related degree programs. In 1979, a special report, *Accreditation in Fire Training and Education*, was completed by the Advisory Committee on Fire Training and Education of the National Academy for Fire Prevention and Control. Based on this report three recommendations were made: 1. An independent organization should be established that is responsible for the review/evaluation process for fire-related education programs. 2. The organization should meet the recognition requirements of the Council on Postsecondary Accreditation (COPA), a forerunner of CHEA. 3. The National Fire Academy is to act as a catalyst to secure accreditation, financing, and to assist in determining operational format.

There has been criticism and concern over accreditation in the United States. Some of the argument has its basis in the constant struggle between the need for rigor, standardization, and quality assurance versus the need for flexibility, innovation, and diversity. At times, these interests can be working at cross-purposes. Other concerns regarding accreditation are more straightforward, such as distance learning. Some concerns include how accrediting bodies are going to provide for quality assurance and

how they are to take into account the effect that distance education has on student life and the roles of professors when evaluating the quality of education courses. These and other questions form the core of the distance education conundrum.

Because the development of emergency management as an academic discipline is in its formative stage, leaders in this industry have a unique opportunity not only to build and strengthen existing degree programs, but also to simultaneously provide a sound basis for these programs, which will earn them the public's trust. This can be achieved through specialized accreditation.

Dr. Walker's paper "Development of Specialized Accreditation for Emergency Management Degree Programs" can be found in Appendix A.

Needs of Emergency Management Students

Panelists: Daniel Robeson, University of North Texas; Jane Kushma, University of Tennessee; and Jeffery Hartle, CFPS, Arkansas Tech

There are three areas of need for EM students according to Mr. Daniel Robeson: in the classroom, the structure of programs and external support. In the classroom there needs to be a better selection of texts, more case studies, more varied topics, more up-to-date materials used, and more outside speakers, i.e., experts who can relate EM experiences. Under structure of the program, Mr. Robeson, said there needs to be a balance between practical, "hands-on" experience and theory. Students also need better routes of transition from the classroom to the workplace. Through interaction with experts and existing emergency professionals, students have the chance to "visualize" themselves as EM professionals. More alumni support would also help students secure jobs. It was also noted that EM faculty and programs need to reflect more quickly the current trends in training.

With regard to external support, Mr. Robeson said that internships are one of the best learning experiences for EM students. His fellow students suggested that the EM field needs more internships on the regional level, not only in Washington, DC. More scholarships and student discounts for conferences, professional memberships, and publications were suggested. Mr. Robeson also said that paid internships are wanted and needed by most EM students.

The final point Mr. Robeson made was that EM students need to be unified. The formation of the International Emergency Management Student Association (IEMSA) offers students a chance to exchange information and helps them find opportunities for both internships and employment.

Ms. Kushma and Mr. Hartle agreed with all of Mr. Robeson's points. Ms. Kushma provided a list of Service Learning references and resources. (See Appendix B.) EM students need to have access to active learning, be able to develop an identity with the profession, and have a chance to network within the profession, according to Ms. Kushma. Mr. Hartle spoke of the need for full-time, tenured EM professors. Adjunct staff cannot focus on the future of the EM profession when their first duties are to a different major. Dedicated instructors can offer EM students mentoring; career planning; networking opportunities; and modeling of attitudes, behaviors, communication, education, and professionalism. Conference attendance was also discussed: which ones to attend, facilitating student travel, and networking opportunities. Mr. Hartle reiterated the need for paid internships outside of Washington, DC. Mr. Hartle said instructors need to come up with creative solutions to internships.

Emergency Management Resources

Panelists: Tom Behm, Julie Beecken, Dr. Sarah Michaels, Juliann Frantz, Jane Kushma, Bruce Marshall

Ms. Linda Straka introduced a panel of resource specialists who provided information on how to collect publications, audiovisuals, photos, case studies, and videotape footage for use in current and developing courses. According to Mr. Tom Behm, there are thousands of publications available through the FEMA's publication division. A catalog can be requested by calling 800-480-2520. The request line is open 8 a.m. to 5 p.m. Monday through Friday. E-mail requests for the catalog can be sent to [ron.guthrie@fema.gov].

The Learning Resource Center (LRC) has more than 50,000 books, research reports, journals, and audiovisual materials for emergency management and fire service and emergency medical services. The LRC Web site is: [www.lrc.fema.gov]. Phone requests for publications are taken at 800-638-1821 or 301-447-1030. The E-mail address is: [netclr@fema.gov]. The LRC offers free article research and inter-library loans. (See Appendix C for the proper forms).

Dr. Sarah Michaels said that the The Natural Hazards Research and Applications Information Center has a Web site [http://www.colorado.edu/hazards/index.html]. There are two publications available through the Web site: *The Natural Hazards Observer* and *Disaster Research*. Both have searchable databases. Anyone is welcome to visit the center in Colorado, but it is not a lending library nor does it have the staff to conduct bibliographic research. The Center does charge research and retrieval fees.

Ms. Juliann Frantz gave a presentation on how to retrieve free disaster photos from the Web. (Please see Appendix D for the full PowerPoint presentation that includes free photo Web sites.)

Ms. Jane Kushma compiled a list of case study references, Web sites, and journals. Please see Appendix E. She is also coordinating an electronic discussion group on Emergency Management Service Learning. To participate in this discussion group, contact Ms. Kushma at [jane-kushma@utc.edu].

Mr. Bruce Marshall of the Support Systems Branch of EMI is responsible for the Independent Study Program, EENET, and a video library. The weekly EENET broadcasts (90 minutes) offer excellent television instruction. They are available through each State emergency management agency or the FEMA regional offices. Mr. Marshall has a large collection of disaster, emergency management, and exercise footage available. This footage is free in VHS format. If Beta-SP format is needed, the producer needs to provide tape stock to Mr. Marshall. He is always looking for additional footage for the library.

Group 2: Breakout Sessions with Course Developers

Disaster Response and Operations Course

Moderator: Dr. David Neal (daveneal@prodigy.net)

This course is being developed by Dr. David Neal of the University of North Texas and supports the emergency management curriculum. Topics will include case studies, warning, evacuation and sheltering, the Federal Response plan, the emergency operations center and disaster response issues and special considerations. This course is expected to be available by May 2001.

Some of the main topics covered were:

- The context of learning about disaster response and operations, especially in terms of the disaster phases
- Looking at the big picture of a disaster
- Defining what a disaster is and realizing that multiple definitions exist
- Issues of knowledge-based education, what kind of knowledge, and whose knowledge is valid in a disaster
- Issues of emergence and flexibility

Two themes emerged during the discussions:

- *Curriculum development:* How are these ideas developed and integrated into the curriculum; what is meant by the professions of emergency management and disaster management; what is meant by the sociology of disaster or people in public administration who study disaster? How much overlap or lack of consensus is there amongst those different fields and professions?

- *Issues of management and leadership theory:* What types of tools do disaster managers need to be effective before, during, and after a disaster? Are these management leadership issues an art or a science; is there something that can be pulled from studies to make the disaster manager's job easier?

  The group discussed the "Star Trek" model or metaphor of what type of leadership style might be better in a disaster.

  They considered the Kirk versus Picard Model, or Kirk versus Spock Model, or Kirk versus Data Model: pure, raw rationality versus "gut" intuition to make decisions. How can these be combined to make effective disaster managers, especially during a disaster response phase?

In differentiating between the professions of emergency management and disaster management, emergency management refers to those day-to-day activities that police, fire, paramedics, and others do versus disaster management, where people are getting ready or responding to the low- probability, high-consequence types of events such as disasters.

Community Hazards Risk Assessment
Moderator: Dr. Ben Wisner (bwisner@igc.org)

This course is being developed by Dr. Ben Wisner, Oberlin College, and will support emergency management curriculum. Topics include hazard identification, community mapping, risk analysis, using risk assessment for plans and programs, and policy implications and issues. This course is expected to be available March 2002.

The hazards risk assessment outline should be familiar because it has been promulgated by FEMA for about 10 years; it is world wide; and it is a fairly standard risk assessment methodology beginning with hazard identification, moving into hazard analysis, and dealing with various spatial and temporal aspects of extreme events.

The group discussed community profiling or community mapping, which is a key to vulnerabilities in terms of the physical infrastructure, the built environment, business exposure, and population groups. Also, it pertains not only to vulnerabilities but also to capacities and resources.

The group also discussed how hazards risk assessment fits into preparedness and mitigation planning. They talked about policy issues that need to be discussed at community and other levels. Some of these were very difficult issues; e.g., acceptability of risk. What is the level of acceptable risk that a community is willing to accept?

The instructor's guide cannot go into these political and ethical issues in great depth, but the issues have to be included as part of the context. The instructor's guide should have in it a whole range of tools at the bottom-up, low-end of community-based risk assessment (such as interviewing, listening). At the high- end, Hazards-United States (HAZUS), computer-assisted kinds of risk assessment, and the Geographic Information System (GIS) are some of the topics that need to be addressed. The fact is that there are parts of the United States where there are no resources to do full-blown, high-end analysis. On the other hand, if you can motivate people (broad partnerships involving faith communities, businesses, etc.), it is always possible to do community-based work

The group then discussed pedagogy. The products being developing must be student friendly and user friendly. There must be case studies, use of primary data, hands-on opportunities, desktop exercises, and team efforts.

Building Disaster Resilient Communities Course
Moderators: Dr. Robert Patterson (rgfp@mail.utexas.edu) and
Dr. Edward J. Kaiser (ekaiser@imap.unc.edu)

This course development project is being led by Dr. Ray Burby, UNC, Chapel Hill. It is being designed as a capstone course for seniors within a emergency management curriculum. Topics will include legacy of vulnerability/vision of resilience, sustainability, smart growth, managing change to build hazard resilience, using resilience-building tools, and creating resilience. This course is expected to be available September 2001.

The group talked about sustainability and smart growth and went on to try to clarify sustainability, which was the ultimate goal. Dr. Patterson used the Ballagio Principles, developed by an international group of measurement practitioners and researchers from five continents, who, in 1996, met in Ballagio, Italy to review progress to date and to synthesize insights from practical ongoing efforts. Sustained growth is based on the following principles:

- Guiding vision and goals
- Holistic perspective
- Essential elements
- Adequate scope
- Practical focus
- Openness
- Effective communication
- Broad participation
- Ongoing assessment
- Institutional capacity

Dr. Kaiser presented a study he is doing with the University of North Carolina in Kenston, a city that has a lot of flood issues and that was badly affected during the last hurricane. Emergency personnel tried to move people out of the flood zone into areas that were not so prone to flooding. Actually, they tried to move the entire town to a new location; however, the community decided against it.

There are four parts to the course:

- Part 1: Vulnerability and the vision of resilience
- Part 2: Managing change to building a housing-resilient community
- Part 3: Using resilient building tools
- Part 4: Creating resilience

There are exercises for each part, and each part builds on the next part, with the final presentation of Part 4. The responses they received from a group that was previously there included:

- Build more preparedness, response, and recovery into the course
- Address special populations; e.g., the economic forces and determine how these forces will impact the overall community
- Assess the stakeholders more closely
- Consider the social implications of moving communities out of a flood-prone area—the poor, the different ethnic groups, group homes, foster homes, battered women's shelters, etc.

Distance Learning Panel
Moderators: Dr. Alan Walker, Dennis Hickethier, Dr. Walter Green, Don Schramm, Dr. Harold Stone, and Sally Turner

Some of the realities of distance learning include:

- It is actually quite expensive
- There is a definite time commitment
- There may not be a shared vision among all of the faculty
- There is the question of faculty compensation
- There is the question of why a faculty person should do distance learning
- There is resistance to change
- There are policy issues

Some types of programs that have been developed aim at specific audiences. Some target groups may live a distance away and are unable to get to the campus. Distance learning is a way of targeting that particular audience. From an administrative viewpoint, aren't we competing with each other for, in many cases, the same pool of students? We don't have the same number of traditional students, so aren't we all going after the non-traditional students? That means offering evening courses, weekend courses, short courses, distance learning courses—anything that can be done to make our individual universities more competitive. In a sense, that is what some of these programs are very effectively doing.

The group discussed specific courses that have been developed; some were on the Internet, and some were done with computer discs. The point was made that even though Internet-based education is time consuming, difficult, expensive, and risky, it cannot be ignored.

Where to start? Start small; start with one course; start with what you know; start with a known audience; and start where you have competitive advantage.

Look at the software that is available directly to your universities; also look at the software that is available commercially.

Group 3: Breakout Sessions with Course Developers

Community-Based Emergency Management
Moderator: Sam Isenberger

Following a significant disaster event, emergency managers tell people the truth. The people are told that they must take care of themselves, that local, State, or federal personnel will not be there for any length of time, and that the people need to have disaster supply kits. If you think about it, that's acting as if all these people need after this particular event is some water to drink, some food to eat, and some other things. However, we have the premise that when these events occur, there are going to be a lot of things out there that will be "responsive" in nature. Do emergency managers have a responsibility at the community level, the neighborhood level, and at the bottom-up level to prepare these people to take care of themselves if we are not going to be there? The answer is "Yes."

Emergency managers take on this concept by:

- Going into and sectoring communities
- Recruiting teams of people from neighborhoods, training them to take care of themselves, and teaching them some very straightforward skills that will make a difference
- Teaching the community about disaster preparedness and the hazards to be faced
- Teaching about the vulnerability to disasters
- Telling the community what can be done before, during, and after particular events and the truth about what is going to happen and what they are going to have to do

Emergency management personnel teach people hands-on skills, such as

- How to turn off utilities
- The importance of staying away from hazardous materials even if people in the vicinity are hurt
- Fire chemistry, the use of fire extinguishers, fire suppression
- Medical skills—how to stop bleeding, open an airway, and how to treat for shock; triage; head-to-toe assessment; how to set up a treatment area; and how to do light search rescue.

- Not only what *to* do but also what *not* to do

- Size-up capabilities—look at a situation and decide whether it is lightly, moderately, or heavily damaged and then to make some response decisions based on how the problem is determined

- Disaster psychology and team organization—there is a need for somebody to be in charge, to organize, to have accountability, to keep records, and to interface

The goal is to integrate people into the emergency management system at the grassroots level. How does that apply? If there were a significant event, be it a tornado, an earthquake, or a terrorist incident, and if there were numerous people hurt, this would be a situation that would overwhelm the community resources. Who would you depend on? Who would you call? Personnel need to be trained to help each other. Take a look at staff, administration, and maintenance. All those people should be integrated into the system, and they should be trained in skills that will make a difference in terms of saving the lives of people.

That is what the Community Emergency Response Team (CERT) is all about. It was borrowed from the Los Angeles City Fire Department. They developed this program based on an earthquake threat. It is an 18-hour program, and typically it is taught in a community 1 day a week for 2 ½ hours over a 7-week period. It really has made a difference; and it has really grown. At present, there is some form of a CERT program in about 23 states. Probably 80,000 to 100,000 people have gone through the program. These are people who know they will have to care for themselves, their families, their neighbors, and their community after a disaster event, and this training program is the way to do it.

To find out more about the program, visit the Web site:

www.fema.gov/emi/cert

Terrorism and Emergency Management Course
Moderator: Dr. William Waugh, Jr. (wwaugh@gsu.edu)

This course was developed by Dr. William Waugh, Jr. of Georgia State University for use by emergency management college curriculums. It consist of 374 pages and topics include: history of terrorism in the United States, domestic and international terrorism, law enforcement/national security aspects, applying emergency management framework, the structure of antiterrorism programs and preparing and responding to major events.

Terrorism in the United States is a hazard that has been with us throughout our history and will continue to be with us. As such, perhaps it ought to be handled much like other sorts of environmental hazards; that is, the hazard needs to be defined in terms of the key elements.

The group discussed the nature of domestic terrorism in the United States in terms of what we are familiar with: Ku Klux Klan, neo-Nazis, Aryan groups, the Order, the Christian Patriots, the skin heads, survivalists, militias, and the Freemen. This diversity makes it difficult to predict and avert terrorist attacks.

They discussed the notion of the threat to Americans overseas. For the most part, Americans are not that threatened. Last year, there were only four or five Americans killed. That is a small number given our overall population. Violence does, however, tend to run in cycles. There are dangerous places in the world, and Americans tend to be targets; we are not universally loved.

The United States has a range of violence, but it is a lower order of violence—from school violence to work place violence. How can counter-terrorism and anti-terrorism programs be structured in a way that is far more comprehensive in terms of preparedness, mitigation, and response efforts? Perhaps it should be built from the ground up in terms of looking at the fundamental security of buildings, to behaviors in organizations, to the layering of security.

The group discussed weapons of mass destruction. It was stated that we might include more than just nuclear devices, biological weapons, chemical weapons, and radioactive material. It was suggested that we ought to include cyber terrorism and conventional weapons that can kill a large group of people: explosives, assault weapons, and fertilizer bombs. It was suggested that maybe the United States should expand its definition of the weapons of mass destruction. It is the simple sabotage of complex systems that endangers lives.

They discussed the politics of the way counter-terrorism and anti-terrorism programs are being structured in terms of how the money is being distributed among jurisdictions that may or may not have a genuine risk; how there is conflict and competition among agencies for monies; how, perhaps, the hazard might be defined in a

way that makes it easier to deal with in a comprehensive way, along with other hazards, but also in a way whereby the amount of exposure and risk might be reduced.

Questions were raised about civil liberties and civil rights in relation to counter-terrorism issues; e.g., if there were a debate or a class on terrorism, would that stimulate someone to do something they should not do? That *is* a real possibility.

Earthquake Hazard and Emergency Management Course
Moderator: Dr. Walter Hays

This course is being developed by Dr. Walter Hays, USGS (Ret.) and currently, Senior Program Manager, Sustainable Built Environment, American Society of Civil Engineers. It is being designed to support a general emergency management curriculum. ASCE supports emergency management curriculum. Topics will include causes, characteristics, consequences, societal impacts of earthquakes, the community's hazard, build and policy environments and examples of policies and programs. This course is expected to be available by September 2001.

This group discussed the development of Dr. Walter Hays' course, which is an attempt to blend the scientific knowledge of the earthquake hazard with emergency management principles in an attempt to look at all of the different aspects of how to deal with earthquakes, how to assess risk and vulnerability, and how to translate that into specific strategies for dealing with the hazard.

Dr. Hays used what he refers to as the "virtual reality situation assessment." He showed 60-80 slides of different earthquake effects—either the physical effects or potential effects on people. He asked the students to generate some sort of a narrative: "What do you see from these pictures?" The strategy behind this is that the more people can get into this and experience it, the more they will personalize the risk. His ultimate goal in the course is to take people who are uneducated in regard to the earthquake hazard and to transform them, by the end of 15 weeks, into advocates for the program.

Fundamentals of Emergency Management
Moderator: Dr. Wayne Blanchard, CEM® (wayne.blanchard@fema.gov)

Dr. Blanchard presented excerpts from the "Fundamentals of U.S. Emergency Management" session of his working draft Higher Education Project course—"Hazards, Disasters and the U.S. Emergency Management System—An Introduction."

In outline form the fundamentals of U.S. emergency management, as presented in this draft course are:

1. Bottom-up approach
2. Intergovernmental
3. All-hazards (comprehensive emergency management)
4. Integrated Emergency Management (IEM or IEMS)
5. Four phases of disaster life-cycle
6. Building disaster resilient communities

This group discussed the following:

- Emergency management has changed radically in the past 20 to 30 years. In the beginning, FEMA focused on a national security perspective; then it switched over to a natural disaster perspective. More recently, it has moved into immediate response. Most recently, it has begun focusing on mitigation. The newest emerging trend is building disaster resilient communities and sustainable development.

- There were discussions and presentations on the fact that there is no clear definition or consensus on exactly what emergency management is, what it means, and the scope of the subject.

- There are two particular models to describe the various approaches:

  Technocratic or structural model—the focus is on the hazard and problem-solving techniques, engineering approaches, and top-down approaches.

  Vulnerability or behavioral model—the focus is on the social, economic, and behavioral aspects of the disaster; the idea is more to reduce the vulnerability of people. This is more of a bottom-up approach.

  Currently the technocratic model seems to be the most prevalent approach.

The group discussed the fact that these courses were designed to bring beginning students into the fold—mainly the 18 to 22-year-old students. What is happening is that second career and continuing education students are enrolling. That is great, but the long-term focus is to start with young students coming into college and having them say, "I want this to be my major."

The group also discussed the need for more statistics on job availability and salaries; these are the first questions asked by the deans.

They discussed the need for some advanced coursework—more academic rigor in some of the courses, particularly in having more details of case studies—not just a brief history of what happened someplace, but how to really integrate and use a case study as a learning tool—integrating economic analysis, quantitative and statistical approaches to the fields so that information can be taken back to the deans, department chairs, and accreditation bodies to show that this is a significant academic discipline.