The Macedon Digest

The Australian Newsletter of Disaster Management

Produced by the Australian Natural Disasters Organisation Vol. 4 No. 3 September 1989

OZONE DEPLETION : IMPLICATIONS FOR AUSTRALIA

At a Conference on the Ozone Layer and Health, held in Hobart in May this year, delegates were warned about the effects for Australia of continued ozone depletion.

Strong scientific evidence is available about ozone depletion, which occurs when long lived manmade gases like CFC's and halons are released into the atmosphere. The resulting increases in ultraviolet (UV) light which reaches the earth's surface, will result in greater health problems, with a threat to various life forms. Skin cancer and eye disorders will be more common and immune systems responses will be adversely affected. For instance, a 1% decrease in ozone, would see a 1-2% increase in the most serious of skin cancers, melanoma. Plant extinctions will be exacerbated, with a particularly detrimental impact on the productivity of the marine environment.

" ....Australia (is) ... at the frontline in the battle against ozone depletion."

The conference, sponsored and conducted by the Menzies Foundation, was informed that Australia was at the frontline in the battle against ozone depletion. This is because the depletion of the Antarctic ozone layer, which research had established was as high as 50% over the last 10 years, is reducing ozone levels in Southern Australia as it mixes with air from the middle latitudes. Ozone reductions of between 2 and 5% have been measured over Australia in the last 10 years.

Thirty three papers were delivered by leading experts from the Australian region and overseas, to an audience consisting of academic, scientific and health professionals, senior public servants and representatives of concerned community organisations. Professor Alan Plumb, formerly of the CSIRO Division of Atmospheric Research in Melbourne and now with the,Massachusetts Institute of Technology, told of how significant drops in ozone levels had recently been measured for Melbourne. In late spring, the Antarctic vortex begins to breakdown and spread ozone depleted air into mid latitudes. In one day in December 1987, the ozone level over Melbourne went from 310 Dobson units down to 275 units, the lowest recorded for Melbourne in December. The Dobson measure was invented by Dr CharlesDobson in the 1920's and measures the absorption of ultraviolet radiation as it passes through the atmosphere. Similar reductions were recorded for Perth and Hobart in late 1987. These Australian trends are significantly higher than global averages. Professor Plumb stated that the Montreal Protocol for reducing ozone depleting gases, is too conservative and even immediate bans on these gases will not impact on the Antarctic hole for another 30 years.

Professor Margaret Kripke, an immunologist from Texas University, indicated that, in addition to altering plant and aquatic ecosystems in unpredictable ways, there will be increases in skin cancers and ocular cataracts. Also, recent research had illustrated that ultraviolet radiation was shown to alter the immune system in experimental animals and humans. These studies in animals suggest that such radiation can indeed potentiate certain disease processes. The suppression of the immune response seemed to result from compounds released by skin cells exposed to UV-B radiation. The compounds perturb the immune system's normal checks and balances.

" ... a combined impact of the greenhouse effect and ozone depletion could result in 25% of plant species becoming extinct."

The impact of ozone depletion on plants has been the particular interest of a Tasmanian CSIRO scientist, Dr Grahame Kelly. Plants damaged by UV radiation display lowered photosynthetic capacity and reduced leaf growth. Dr Kelly said that terrestrial plants may not be severely challenged by the increased UV irradiance expected, unless this stress occurs at the same time as another stress like the "greenhouse" induced climate change. He forecast that increased UV's alone would mean less than 1% of plants will be disturbed but a combined impact of the greenhouse effect and ozone depletion could result in 25% of plant species becoming extinct.

The conference produced the following recommendations to tackle the vexing problems arising

from ozone depletion :

1. Strong concern be expressed to the appropriate authorities about the deleterious health and environmental consequences, especially to the Australasian community of the increased exposure to ultraviolet radiation resulting from depletion of the ozone layer.

2. Since the full extent of these deleterious health and environmental consequences is not yet known, further relevant strategic research be initiated as a matter of urgency in the medical, physical, chemical and biological sciences.

3. As an immediate step, the Montreal Protocol be strengthened with the ultimate goal of a complete phasing out of CFCs and halons (except where health and safety factors outweigh ozone protection factors) by the year 2000 and every effort be made to reduce this timetable wherever practicable.

4. Without prejudice to (2) rapid and effective monitoring of the health consequences of ultraviolet radiation be developed as a matter of urgency throughout Australasia and be associated with an increase in well researched and effective intervention programs aimed at reducing ultraviolet exposure and problems related to it.

5. Without prejudice to (2) Australasia's participation in international monitoring programs for ozone and trace gases be enhanced and Australasia establish an operational long term monitoring program for ultraviolet surface radiation as part of a global network of baseline observations.

6. A formal collaborative interdisciplinary structure be created to record, report and analyse the data from (2), (4) and (5) above and to identify further research and monitoring needs in an ongoing series of biennial conferences.

7. The Menzies Foundation be asked to accept carriage of these recommendations to the appropriate authorities

Further information about the conference can be obtained from :

Dr E Wigglesworth,
Executive Director
The Sir Robert Menzies Memorial Foundation
210 Clarendon Street
EAST MELBOURNE VIC 3002
Tel : (03) 419 5699

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EDUCATION

ACDC PROGRAM

1 October 1989 to 2 March 1990

❖ Response Management (1180) 1-6 October

❖ Workshop-Hazard Warning Systems (1181) 8-13 October

❖ External QLD-Local CD Planning (1183) 15-20 October

❖ External SA -Local CD Planning (1184) 22-27 October

❖ External NSW -Introduction to Disaster Management (1185) 29October - 3 November

❖ External WA -Local CD Planning (1186) 5-10 November

❖ Workshop-Study Topic TBA (1188) 12-17 November

❖ Recovery Management (1189) 19-24 November

❖ Operational Disaster Management (1191) 26 November - 8 December

◆ College Closed 18 December 1989 -26 January 1990

❖ Counter Disaster Planning (1193) 28 January -2 February

❖ Evacuation Management (1194) 4-9 February

❖ Workshop -Development of Australian Emergency Manuals (1195) 4-9 February

❖ Workshop -International Decade of Natural Disaster ReductionActivity (1196) 11-16 February

❖ Hazard Analysis for Disaster Managers (1197) 18-23 February

❖ Response Management (1198) 25 February -2 March

Details about these activities are contained in the 1989/90 ACDCHandbook; or contact the College direct on (054) 261205.

BUSHFIRE AND SHRUBLANDS CONFERENCE

A "Bushfires and Shrublands" Conference, jointly sponsored by the University College of UNSW and the NSW NPS, was held at the University College in Canberra, from the 8th to the 10th of May 1989. The aim of the conference was to review recent work in fire ecology and behaviour, particularly work relevant to shrubland and grassland communities. The three invited speakers, Angas Hopkins (CALM, W.A.), Jamie Kirkpatrick (University of Tasmania) and Carolyn Sandercoe (NPWS, Qld.), discussed the diversity of shrublands in Australia and the many research and management problems posed by fire in these communities. Participation from all states and the NT gave the conference a national outlook. The emphasis was on information exchange and discussions of future research.

Three workshops held on the final day were on the following areas:

(1) Fuel Accumulation Models: Throughout the three day conference, predicting fuel accumulation was seen as a serious problem and better modelling is required. Consideration needs to be given to the outputs required from fuel accumulation models, as this determines necessary input information. For example, a total amount of litter is insufficient, as the stratification and live/dead content needs to be predicted for a range of fuel sizes.

(2) Fuel Moisture Content: This needs to be known over three time scales; diurnal, weekly, seasonal. A distinction is necessary between various conditions and types of fuel and this needs to be standardised. The merits of modelling and measurement were discussed and it became clear that they are complementary activities. Some work on critical moisture levels for ignition and extinction in fire and coarse (live and dead) fuels and in peat, lichen, moss and punky wood would be valuable.

(3) Fire Simulation: Simulation with personal computers is an increasingly popular method of

educating people interested in fire behaviour. With this popularity has come a variety of simulation methods, of which many are becoming well known: square grid, hexagonal grid, ellipse, percolation, cellular automata, and so on. The success of any simulation model depends upon its ability to be integrated with existing data bases and G.I.S., ease of use, access to a variety of fire models, and speed and reliability of the software and hardware.

It was suggested that forums such as these are the key to research progress and that a similar meeting should be held in two years time.

For further information about the conference and ConferenceReport, contact :

Rodney Weber,
Department of Mathematics,
University College UNSW,
ADFA, CANBERRA, 2600

SUMMER SCHOOL -"CLIMATE & ENVIRONMENT"

The Macquarie University School of Earth Sciences and Graduate School of the Environment, will conduct a Summer School on the "Climate and Environment," from 27 January to 2 February 1990.

The School will be held at Dunmore Lang College at Macquarie University.

The aims of the school are to :

❖ provide a background to climate studies in Australia and Internationally;

❖ offer a "hands on" experience of observational systems; conduct detailed study of vegetation climate interaction especially in semi-arid regions;

❖ introduce a wide variety of climate topics studied in Australia;

❖ undertake workshops on urban climates and forecasting ofextreme events; and

❖ develop communication skills in a workshop/conference setting.

Applicants should have a background in meteorology or climatology and a particular interest in climate issues. Lectures will begiven at senior undergraduate level and students will be encouraged to give short presentations on climate related topics.

Applications which are required by 30 September 1989, should include name, address, qualifications/background, general area of interest, topic of short oral presentation and be mailed to:

Helen Cleugh,
School of Earth Sciences,
Macquarie University
North Ryde, NSW, 2109.
Telephone : (02) 805 8398
Fax : (02) 805 8428

INTERNATIONAL TRAINING ACTIVITIES

1. Mass Burns Course November 1989

The International Civil Defence Organisation is organising a course on mass burns caused by superfires, nuclear and chemical accidents. It is to be conducted by the Mediterranean Burns Club and will be held at the Civil Defence Academy in Lahore, Pakistan from 14 to 21 November, 1989. Enquiries should be directed to :

The Director General Civil Defence,
House No. 10,
St. 51, F8/4,
Islamabad, Pakistan.

2. Disaster Relief and Mitigation Conference -February 1990

The British Consultants Bureau (BCB) is arranging a conference on 7 February 1990, to bring together people involved in disaster relief and mitigation. Both producers and users of specialist information and expertise will attend. This conference is being arranged as an early initiative to mark the commencement of the International Decade of Natural Disaster Reduction. The conference will be held at the Queen Elizabeth II Conference Centre in London, and is seen as a unique opportunity to bring together all those involved in the disaster cycle. The aim is to demonstrate how consultants' expertise can be used more effectively, both nationally and internationally. Invited speakers include the Duke of Gloucester (President of BCB), the UN Disaster Relief Office, the UK Minister for Overseas Development Mr Christopher Patten and Dr Alcira Kreimer of the World Bank. Enquiries should be directed to :

Major General Tony Boam, CB CBE,
Director British Consultants Bureau,
1 Westminster Palace Gardens,
17 Artillery Row,
LONDON SW1P 1RJ U.K.
Phone : 01 : 222 3651

DISASTER MANAGEMENT GRADUATE DIPLOMA

From 1990, the Cumberland College of Health Sciences will be introducing several different programmes for emergency and disaster management professionals. The first programme to be offered will be the Graduate Diploma in Disaster Management, commencing at the beginning of the 1990 academic year.

The Graduate Diploma programme is designed to give students a comprehensive understanding of both the phenomena of disaster and the management of disaster impacts. It will focus on the expansion of the skills, training, and knowledge previously acquired by emergency management personnel, in order to enhance the delivery of interagency emergency and disaster services. The course has three major aims:

❖ To develop knowledge and understanding of concepts of socialcrisis and collective stress, with particular reference todisaster phenomena;

❖ To develop competence in the application of analytical andplanning skills, with particular reference to formulating andimplementing counterdisaster strategies;

❖ To develop knowledge and understanding of the characteristicsof the emergency social system, with particular reference toorganisation and management in the disaster context.

(continued page 7)

FEATURE

DISASTER SOCIOLOGY IN AUSTRALIA

This is the second and concluding part of a feature article for TMD, by Dr Neil Britton from the Disaster Management Studies Centre at the Cumberland College of Health Sciences in Sydney. In June TMD, Dr Britton looked at the general development of Sociological Studies in disaster, especially within the American Scene. In this article, he examines disaster sociology in Australia. Readers are invited to exchange views and opinions on Dr Britton's paper.

Disaster Research has become multi-disciplinary and international in the past two decades. These characteristics have affected Australian disaster research. From the middle 1970s on, the scope of Australian disaster research has greatly expanded. Previously, the tendency was to focus on descriptions of the social and environmental impact of a natural hazard or disaster event, especially from a geographical, and later an engineering perspective (there are a few exceptions, and these will be discussed later). This is illustrated well by looking through the published proceedings of the Australian Academy of Science's 1979 symposium on "Natural Hazards in Australia". The more recent symposium held by the Australian Academy of Technological Sciences in 1985, entitled "Natural Disasters in Australia" still indicates the strong influence of this tradition. Nevertheless, there is an increasingly apparent inter-disciplinary representation evident, which has broadened perspectives.

Within the Australian context, and at one level in particular, it might be inappropriate to refer to "Australian disaster sociology". The number of sociologists who have undertaken disaster research has always been small, and remains small today. In fact, of the 569 current members of the Sociological Association of Australia and New Zealand (SAANZ), only one member is sufficiently active to indicate disaster research as an area of substantive sociological interest. This indicates substantially less interest than is the case in other disaster relevant disciplines such as engineering, geography, geology, public administration, psychiatry, psychology, and social work. There have been sociologists, such as John Western and Patricia Short, from the University of Queensland, who have systematically applied their skills to disaster research, but their interest has not been maintained.

Another indication of the relative lack of sociological interest in disaster in Australia is reflected in conference proceedings and journal contributions. Unlike recent sociological meetings elsewhere, there has been no "critical mass" of sociologists to warrant a disaster section at any Australian sociological meeting. Similarly, at the disaster workshops which are regularly held at the Australian Counter Disaster College (ACDC), the direct input of sociologists is probably more infrequent than that of any other relevant disaster field. Obviously, this reflects the lack of sociologists working in disasters, but there is a potential danger in that the contribution which the soc -iological discipline can and does make, might be overlooked. In terms of papers published in the 23 year history of The Australian and New Zealand Journal Sociology, only one paper on disasters has appeared. It is rather interesting to observe, in this respect, that in USA it was sociology which in many respects pioneered the scientific study of disaster and which is still at the cutting edge of the field; compared with sociology of disaster research in Australia, which is struggling to maintain itself as a distinct identity in the latter part of the 1980's.

At another level however, disaster managers and planners are making greater use of sociological studies, obviously affected by the need to adopt a professional attitude to disaster management, legislative requirements, and increasing societal pressure. Sociological research findings are increasingly being accepted and applied by many practitioners, and it is now regarded as another valuable resource available to them. The role played by ACDC in this development has been very significant. By far the majority of this material however, is based on North American studies. Most disaster relevant material(as opposed to hazard agent specific) is researched in the USA, and because of this, American material has always been a substitute for Australian based research. This is particularly noticeable in areas relating to disaster management, planning, and organizational decision making, structures and processes. These are areas in which, until very recently, little Australian sociological research had been conducted.

" The number of (Australian) sociologists who have undertaken disaster research has always been small...."

Apart from the practitioners themselves, disaster sociology has been used extensively within the Australian context by other research professionals. Earth scientists, such as Russell Blong, Les Heathcote, John Handmer and John Oliver; Economists like Eric Jones; Engineers such as Kevin Stark and George Walker; Psychologists like Mike Innes, George Kearney and Ted Milliken; Political Scientists like Roger Wettenhall and Alex Kouzmin; Psychiatrists such as Beverley Raphael and John Price; and Social Work specialists like Ian Murray, have applied sociological research findings in their own disaster studies. In turn, sociological research has been assisted enormously by the research efforts and insights of these other specialist areas. The application of insights from many specialist fields is a hallmark of contemporary disaster research, and in this, the Australian disaster research community is no exception. However, it appears

as if the importance of sociological work in the disaster area is more recognized outside of its own discipline than it is within it.

Given some of the comments already made in this article, it is probably not too surprising that the first widely available and systematic study of organizational response to disaster carried out in Australia was (i) by Americans, and (ii) by the Disaster Research Center, Ohio State University. A two man sociological team was sent by DRC to investigate the "Black Tuesday" bushfires of February 1967, in Tasmania. The ensuing report, written by William Anderson, was based on interviews with several key organizational officials and the observations of the two sociologists. This disaster led to the first methodical analysis of organizational and administrative response to disaster by Australian researchers. It was conducted by John Power and Roger Wettenhall, who in 1969 and 1970 published two papers on the administrative arrangements prior to and during the bushfire tragedy. Wettenhall subsequently published several important papers during the 1970s and early 1980s, including his fascinating book, "Bushfire Disaster: An Australian Community in Crisis", published in 1975, in which he examined many relevant aspects of disaster organization, administration, operationalization, and management. Wettenhall's contribution to the knowledge base of disaster research in Australia is immense; and his publications have formed a basis for many subsequent studies. The Commission of Inquiry documented many other characteristics of organizational activities in their report on the 1967 disaster to the Tasmanian Government.

"During the 1970's.... disaster studies tended to closely follow the occurrence of serious hazard impacts."

During the 1970's in particular, disaster studies tended to closely follow the occurrence of serious hazard impacts. Thus, the next significant event to capture the sociological imagination was the January 1974 "Australia Day" floods inBrisbane. A University of Queensland team, comprising sociologists and social workers, conducted a major study of the impact of the flooding. Much of their study focussed on organizational elements. In that same year, Tropical Cyclone "Tracy" ravaged the Northern Territory capital of Darwin.

Sociologists from the University of Queensland were very active in documenting this tragedy, but tended to focus on non-organizational aspects of the disaster. An American research team, comprising sociologist Eugene Haas, economist Harold Cochrane, and a Federal Disaster Assistance Administration (FDAA) official Donald Eddy, provided some insights into the organized activity that occurred during that time, when they published their report in 1976 and a subsequent article in 1977. Other insights of that event have been documented by King in 1979, when he described the reconstruction of Darwin and discussed, in part, the actions of the Darwin Reconstruction Committee. Perhaps though, the best account of disaster organizational actions during this disaster is that provided by Alan Stretton, Director-General of the Natural Disasters Organisation (NDO) at the time, in his books, "The Furious Days: The Relief of Darwin" (1976), and "Soldier in a Storm" (1978).

During the 1980s, while the trend towards "following the disaster event" is still very apparent, and produces many significant studies, there is an additional propensity towards developing "thematic" approaches to Australian disaster studies. This is certainly the case in organizational studies. Geoff Pickup and Joe Minor's assessment of institutional activity, published in 1980, is a useful "starting off point". These two researchers described and categorized the role of many key organizations responsible for hazard management, as part of a much larger work which assessed disaster research and practice in Australia. This information was augmented in 1984 when Neil Britton classified specific disaster relevant organizations according to their location within the federal government, state government or local government "level", or as part the "private" setting.

The relationship between disaster organizations in several hazard impact settings throughout Australia was analysed by Britton as part of a doctoral study conducted between 1982 and 1985. In addition, valuable information was compiled on the internal characteristics of specific disaster organizations, and on disaster management, planning, and operational qualities of the disaster network. Britton reviewed the DRC typology to accommodate the distinctive characteristics of the Australiandisaster relevant organizational network. One outcome of the study was the development of a taxonomy which divided disaster organizations into one of four general categories: Cardinal, Conditional, Controlled, and Constrained organizations.

The work described above is associated with other behavioural, engineering, geographical, physical and social scientific research conducted by members of the Centre for Disaster Studies, at James Cook University. Since 1981, Britton and John Oliver, either jointly or individually, have conducted field trips to investigate organization responses to natural hazard impacts in Brisbane (1981), Darwin (1981), Tasmania (1982), Tonga (1983), Victoria (1983), Boroloola, NT (1984), the Solomon Islands(1986), and Northern New South Wales (1988). This material is currently being used to analyze facets of organizational effectiveness and organizational learning in the disaster relevant organizational network (DRON).

"Another recent characteristic has been the increasing number of descriptive accounts of specific disaster organisations."

Another recent characteristic has been the increasing number of descriptive accounts of specific disaster

organizations by organizational personnel. For instance, Alan Stretton, Ross Swan and John Lessels, all former Directors-General, NDO, have each provided written statements on the role and task functions of NDO. Ian Gilmore and Roger Jones have provided similar statements on the ACDC. Similarly, role incumbents in various State/Territory Emergency Service organizations, such as Kevin Whiting (Queensland), Bill Townsend, Ross Brown (NSW) and Ross Phillips (NT) have provided descriptions of their agency. These have been extremely useful for organization researchers, and are particularly significant now, with organizational restructuring and reappraisal occurring within the disaster organizational community.

To conclude this overview of organization studies within the Australian disaster context, perhaps it is appropriate to take a moment to look ahead and see where the gaps might be in our current knowledge. There are three specific avenues which require urgent analysis. The first relates to the role and capacity of Australia to assist its South Pacific and South-East Asian neighbours in disaster management and relief. The second is a thorough examination of management and decision-making in the disaster organizational setting. The third is a long overdue systematic investigation of planning for and managing technological hazards.

" The structures and strategies of disaster management have yet to be studied in Australia."

Australian overseas disaster relief and assistance operations are clearly becoming important for organizations within the federal government level and, more recently for some state level organizations. For instance, members of the NSW Police Department's Police Rescue Squad have recently been involved with training Solomon Islands counterparts in disaster search and rescue. Another example is the increasing use of Australian medical personnel to assist in overseas disaster impacted regions. Policy development in the area of overseas disaster assistance however, is still embryonic. More empirical and theoretical developments are needed to complement existing work. Disaster impact case studies and general policy, planning and management aspects have been undertaken by Britton (Fiji, Solomon Islands), Nick Carter (Fiji, Philippines, Samoa, Solomon Islands, Tonga), and Oliver (Tonga), but more information is needed so that those responsible for the conduct of policy and, the carrying out of specific operations are much more aware of the problems and complexities of overseas disaster response. The prevailing attitude of "deliver disaster aid first and ask questions later" must be replaced with more consideration.

The structures and strategies of disaster management have yet to be studied in Australia. Management styles, practices and strategies within the Australian DRON, the effect of key personnel on organizational effectiveness levels, the effect of management style on organizational learning, are some of the many areas awaiting investigation. Canberra CAE researchers are currently producing some interesting and potentially useful theoretical models which address some of the questions relating to crisis decision making. Nevertheless, more needs to be done overall. A greater understanding of the organizational context within which decisions are made and executed is certainly required.

Until recently, little emphasis has been placed on the study of technological hazards, and even now in Australia, there are few people looking into this group of hazards. However, as technology changes, and the impact of technology encroaches more widely on society, there is a greater likelihood that emergencies originating from these sources will occur in the future. Mass transit accidents, the transport of toxic substances and the disposal of toxic wastes, industrial plant and product explosions, dam failures, are a few of the growing list of areas requiring investigation by many specialist groups. Organization analysts and sociologists ought to be among the people applying their skills toward developing greater understanding of, and strategies for, technological systems, and the amelioration of emergencies which will inevitably occur. This latter aspect also raises the point that there has been no systematic study ofthe capacity of Australia's emergency medical system to cope with mass casualty events. Recent events ranging from airliner, train, and bus accidents, industrial plant explosions, and chemical spillages indicate clearly that we should not assume that adequate systems are in place to ameliorate these hazards. If experience is any useful guide, then Australian encounters with "natural" hazards should tell us that the implementation of appropriate policy development, administrative decisions, and organizational actions must be based on objective, systematic analysis and not on commonsense notions alone.

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PACIFIC HAPPENINGS

Fiji : A very successful National Disaster Preparedness Week held in Fiji from 3rd April 1989, showed what can be done at low cost and with limited resources to promote a high degree of public awareness. The week was mounted and co-ordinated jointly by theEmergency Services Committee (EMSEC), the Fiji Government counter-disaster authority, and non-government organisations headed by the Fiji Council of Social Services (FCOSS). The aim was to promote public awareness of personal protection measures that can be taken before and after disasters, and to provide information about the organisations involved in counter-disaster operations.

The week's activities centred around tented static exhibitions held in centrally situated parks in major towns. These contained displays by EMSEC, Police, Fire and Ambulance Services, Government Departments, Fiji Red Cross and other non-government organisations. Appropriate commercial participation was encouraged. Public information leaflets in three languages (Fijian, Hindi and English), were distributed and films and videos were shown where facilities existed.

The static exhibitions were supported by other events including band concerts, lectures, fire fighting displays, first aid, medical evacuation and search and rescue demonstrations. Poster and essay competitions were mounted for school children. The events were given a high media profile by visits of official guests. The week ended with a talk back programme by a committee of senior disaster management officials on national radio.

The exhibitions were visited by large numbers of people and the week created a great deal of public interest and discussion. Officials held a debrief and agreed that similar events should be mounted before each cyclone season.

Vanuatu : A senior official from the National Disaster Management Office, joined the Director of Meteorology, to attend the Asian Disaster Preparedness Centre's first course on Improving Cyclone Warning Response, in November 1988. On their return, they took advantage of a meeting of local government officials, to check the understanding of broadcast cyclone warnings in regional centres. As a result, Vanuatu is to supplement the standard cyclone warning broadcast, with a simplified warning which uses a basic national alphanumeric grid, to locate cyclones and forecast movement. Grid maps will be widely distributed through the country and results will be assessed after a twelve month trial.

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CD AWARENESS

Many hundreds of people pass through the doors of the Australian Counter Disaster College at Mt Macedon each year and in so doing, become the catalysts for change. The brainstorming sessions which are part of the curriculum for the courses conducted by theCollege, are a fertile spawning ground for new ideas.

Members of the Hazards Management Course (28 May 2 June 1989), conceived an admirable concept that is worthy of some consideration.

Many communities across Australia are quite well acquainted with the "Tidy Town" signs local government or service clubs install. It was considered that this kind of continuing campaign might be readily adapted to promote:

"This is a Fire Safe Town"

Readers are invited to provide their thoughts on this concept.

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CYCLONE AIVU RESEARCH PROJECT

In July, 1989, the James Cook University of North Queensland, Department of Behavioural Sciences began a 12 month research project studying the effects of Cyclone Aivu on the Burdekin District. The project is being funded by the Queensland State Government, who hope the recommendations from the study will be of value in planning for the future management of natural disasters. The Project Terms of Reference require that the study investigate the social, economic, and psychological impact of the cyclone, the effectiveness of the response by the Counter-Disaster Organisations and other local organisations, monitor the wellbeing of those who suffered serious adverse consequences from the cyclone, and make recommendations about issues identified from the experiences of the cyclone.

The Burdekin Community are extremely enthusiastic about the project and have formed a local committee to support and liaise with the research team. The committee is comprised of members of the Burdekin Shire Council, the State Emergency Service, the Burdekin Community Association and the research team members.

The final report for the study will be presented to the State Government in about a year; however a three month interim report is being prepared for mid-October 1989. It is anticipated that this interim report will include the preliminary findings of the study, outline the scope for the recommendations in the final report, and be used as a working document to be discussed with various organisations and the community.

The Research team comprises Mr Eric Butterworth, Principal Researcher, Dr Peter Raggatt, Researcher, and Ms Jenny Scott, Research Officer, under the general direction of Professor George E. Kearney, Pro-Vice Chancellor and Professor of Behavioural Sciences at James Cook University.

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EDUCATION

The Graduate Diploma Course is developed around three core strands, each corresponding to one of the aims. The programme is structured to provide both a multidisciplinary approach to content selection and a sequential treatment within and between the strands. Concepts and principles are introduced and then applied to a subsequent area of study either to give greater depth to the content and/or to provide a basis for critical appraisal of historical disaster events. Each strand is divided into a number of subjects. Students are required to complete seven core subjects; a Special Investigation; and one elective.

Opportunities exist for students to build on and expand their existing body of knowledge and experience by undertaking an individual special investigation which has particular relevance to their interest and work content. The Special Investigation is intended to direct the student to the gathering and interpretation of actual data to demonstrate his/her capacity to apply analytical, planning, organisational, and management concepts and principles.

Electives will focus on specific areas such as : disaster management in the context of 'developing nations' : the emergency medical system and mass casualty management; psychological and psychiatric consequences of social crisis; welfare services in the post-impact phase; multiculturalism in the context of social crisis recovery; the media in the social crisis

context; town planning in hazardous locations. Depending on the nature of student preference, the College will consider the employment of visiting staff, linking students to another recognised institution, or supervision by an accredited off-campus expert in a particular field.

The Graduate Diploma course will initially be offered in a two-year part-time evening attendance mode at Cumberland College. In 1991 it is envisaged the course will also be developed in an external mode. Other programmes anticipated to be offered are an Associate Diploma in Disaster Management, and a Masters Research programme. The College is working towards offering someof these additional programmes for the 1991 academic year.

For further information about the Graduate Diploma in DisasterManagement or the Disaster Management Studies Centre, contact:

TheDirector,
Cumberland College of Health Sciences,
East Street,
P.O. Box 170,
Lidcombe,
Sydney, NSW, 2141.
Tel : (02) 749 1927 or 646 6228,
Fax : (02) 646 4853

Reproduced at the request of Dr. Neil Britton

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REFLECTIONS

The "Canberra Times" of the 9 August 1961, in examining the need for specialist groups to be more involved in civil defence, made the following comment with regard to welfare needs of disaster victims :

"...this section will accumulate supplies along exit routes and set up feeding and clothing centres. It will keep records of evacuees and reunite separated families. It will give counsellor service to upset people. It will route people to permanent shelter and care."

Today, these same principals underpin the welfare support role in an emergency situation. Winston Churchill once declared in relation to the humanitarian duties of the community during civil crisis:

"No city, no family, nor any honourable man or woman can repudiate this duty and accept from others help which they are not prepared to fit themselves to render in return."

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* Contributions are welcome and should be addressed to:
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ISSN 0817-4024 Editor: Tony Davis Tel: (054) 261205