

# THE MACEDON DIGEST



Produced by the  
Australian Natural Disasters Organisation

Vol.1 No.1

## A NEW INITIATIVE

March 1986

For some time, we have been aware of an information void within the counter-disaster community. It is apparent that a need has existed for the regular production of a publication for general widespread distribution to operatives, planners, trainers and researchers in the counterdisaster/civil defence field. It should include brief summaries of relevant material on forthcoming meetings, training activities, research and local and overseas events.

Through the columns of the Macedon Digest we will provide a periodic summary of current news, on a quarterly basis during 1986. Further editions will appear in June, September and December. It will be freely available to interested organisations and individuals and will focus mainly on the Australian/South West Pacific region, with limited input from overseas sources.

The success of the Digest will depend to a large extent on reader reaction; contributions and comments on content will be welcomed, and will help the Digest to evolve into a useful periodical for all who are involved in the humanitarian field of disaster management.

## NATIONAL COUNTER DISASTER TRAINING AND EDUCATION REQUIREMENTS

For a number of years the Commonwealth has sensed a measure of discord within the Australian counter-disaster community over aspects of the courses offered by it through the Australian Counter Disaster College. From a State perspective, two States have advocated increased access to the College for SES volunteers and for the ACDC curriculum to be directed primarily at skills training for junior leaders. On the other hand, other States have advocated a changed emphasis away from skills and towards higher level activities. Furthermore, increasing travel and operating costs and tighter Departmental controls have made it mandatory for residential activities at ACDC to be as cost-effective as possible.

An integral part of the problem of correct curriculum emphasis, has been a lack of understanding of the nature and breadth of the audience that the National Program should be targeted at, and a lack of knowledge regarding Government intentions about the role played by ACDC towards that audience.

Against this back drop an extensive and comprehensive analysis, taking three years to conduct, has just been completed by the College.

The ultimate objectives of the analysis were to :

- a. identify the range and scope of training required;
- b. determine most effective and efficient training methodologies;
- c. ascertain which training is best developed and managed from a centralised location;
- d. identify which training is best conducted regionally or on the job;



Contributions are welcomed and should be addressed to:  
The Editor, "The Macedon Digest", Australian Counter Disaster College, Mt. Macedon 3441,  
Victoria, Australia. They should reach the College at least 1 month prior to the date of  
publication which is the first day of each quarter.  
Material published in TMD may be reproduced, providing the source is acknowledged.

- e. determine which training lends itself to home study; and
- f. identify which training does not require specialised counter-disaster competencies.

The primary tools of the analysis were :

- a. a review of overseas and local information and a systems analysis of these data to construct a suitable model and to identify the boundaries and major components of the national disaster management system;
- b. an evaluation of Government intention regarding the ACDC role in disaster management training and education and an examination of existing Commonwealth/State agreements which may impinge upon that role; and
- c. an analysis of modern curriculum concepts and practices and a comparison of the existing ACDC curriculum against those criteria to identify anomalies in the existing curriculum and to facilitate the development of a suitable curriculum management model for use within NDO.

In support of these three key avenues of inquiry the following ancilliary studies were conducted :

- a. an evaluation of the pattern of inter-organisational relationships among key elements of the system, to identify a suitable distribution model for survey instruments;
- b. a survey of processes performed by operatives of system, to gauge the relative importance of tasks performed, the time spent performing those tasks and the level of involvement with each task;
- c. an opinion survey of a selection of recognised disaster management specialists within Australia and from the United States of America, United Kingdom, Canada and New Zealand;
- d. an evaluation of competencies required by ACDC faculty staff to service the ACDC curriculum effectively; and
- e. individual and group interviews to clarify aspects of job performance and gauge reactions to some survey outcomes.

The Review attracted considerable interest from all quarters of the counter-disaster community in Australia and overseas. In the main, complimentary and supportive comments

have been received from respondents; and reports of the findings have been requested by individuals and key emergency management agencies throughout Australia, USA, Canada, UK and NZ.

The main benefit derived from the Review is a comprehensive data base which will be used as the basis of Commonwealth counter-disaster curriculum design and training management decisions well into the next decade. Further details of its findings will be released, in due course, and summarised in The Macedon Digest.

#### NEW PUBLICATIONS

##### Flood Warnings in Australia

A Workshop on Flood warnings in Australia, sponsored by the Centre for Resource and Environmental Studies at ANU, was held between 5 and 7 February 1986. The program included papers on :

- a. Response - the justification for forecasting expenditure;
- b. current forecasting technology;
- c. warnings for dam failure; and
- d. institutional aspects.

A Report of Proceedings is expected to be available by August 1986; enquiries should be directed to the Workshop organisers David Ingle Smith or John Handmer, CRES, GPO Box 4, ANU, Canberra 2601, (062) 494 588 or 494 729. If unavailable, contact the CRES Office 494 277.

##### Fire Ecology and Land Management in WA Ecosystems

The WAIT Environmental Study Group (ESG) has just released the proceedings of its May 1985 symposium on "Fire Ecology and Land Management in WA Ecosystems" in a very attractive layout.

The 26 papers ranged over a wide field, from the impact of Aboriginal firing in the past to the effect of controlled burning on bee-keeping.

The symposium, co-organised by the Conservation Council of WA, brought together researchers in fire ecology by synthesising conflicting land management objectives and often conflicting research data. Contributors were those with an interest in the management of fire on particular types of lands and the planners who have to produce a practical plan for the use of fire on natural lands.

Dr Julian Ford, lecturer in Applied Chemistry and Chairman of the ESG, is editor of the report, and grants from the Departments of Conservation and Environment, and Conservation and Land Management helped keep printing costs down to \$10 per copy. Julian will be happy to sell you a copy if you want one. Ring him on 09 350 7263/4. Postage is extra.

### Australian Disaster Research Directory - Second Edition

Throughout 1985, updated information was collected for the new Directory, which was first published in 1983 following a survey to determine the extent of disaster research completed, being conducted or contemplated in Australia. Respondents came from Universities, Colleges, CSIRO Divisions, Government Departments, with a few private contributors. Widely varying fields of study were represented including building research, environmental planning, economics, history, architecture, medicine, dentistry, veterinary science, entomology, microbiology, mathematics and computing, chemistry, earth sciences, mining, physics, engineering, agriculture, forestry, psychology, psychiatry, sociology, and social work. The material received demonstrates that much research relates to typically Australian disasters such as fires, floods, wind and drought; but some unusual lines of hazard-related work have also been conducted. For example,

- \* potentially disastrous exotic diseases in animals, and viral insect borne diseases in man;
- \* disasters of potentially chronic significance such as desertification and salinisation of semi-arid lands;
- \* pollution studies relating to various chemicals, wastes, and the control of nuclear waste dissipation by incorporation into synthetic rock material;
- \* the use of dental and cranio-facial image superposition techniques for mass victim identification;
- \* long term psychological adjustments to disaster, and the behavioural effects of long term or chronic disasters such as droughts;
- \* the climatological effects of nuclear war; and
- \* the increasing use of airborne and satellite imaging.

The two National surveys so far carried out (1983 & 1985) have indicated that nearly all disaster or hazard related research is of a part-time nature, as an adjunct to work of more day to day relevance. Few people can devote full-time effort to disaster research.

It cannot be assumed that the latest Directory edition is totally comprehensive, and, accordingly, the editor will be pleased to hear from anyone who wishes to be included in subsequent issues, or who can supply any other relevant information. Please contact :

Ian McDermott,  
Research Officer,  
Australian Counter Disaster College,  
MOUNT MACEDON VIC 3441  
Telephone No. (054) 261 205

### Recovering from Loss - Helping Young Children after a Natural Disaster

This excellent publication was developed by staff from the Health Department of Victoria. It consists of 4 attractively presented booklets in a folder, on the following topics :

- a. Children's reaction and ways you can help;
- b. About story telling;
- c. Some children's story books you can use; and
- d. What to do when there's nothing to do it with.

### INTERNATIONAL NEWS

#### Fire Safety Scientists and Engineers form first International Group

Nearly three hundred fire safety scientists and engineers from around the world, agreed to form the International Association for Fire Safety Science, the first organization of its kind. During the week, October 7-11, the group of scientists and engineers attended the First International Symposium on Fire Safety Science held at the National Bureau of Standards in Gaithersburg, Md.

According to Dr Phillip H Thomas from the United Kingdom, chairperson of the conference, the association will work with established groups in the international fire community to improve safety standards in fire safety science, to encourage scientists to become interested in the field, and to provide a scientific basis for fire safety science and engineering. The association also will encourage the use of science and engineering to reduce fire losses and to anticipate danger from new processes and practices.

For further information on the International Association for Fire Safety Science, contact Dr Phillip H Thomas, Fire Research Station, Melrose Avenue, Borehamwood, Herts WD6 2BL, England; Prof Ove Pettersson, Lund Institute of Technology, Division of Building Fire Safety and Technology, Box 118, S-221 00 Lund, Sweden; Dr Raymond Friedman, Factory Mutual Research Corporation, 1151 Boston-Providence Turnpike, Norwood, Mass. 02062; or Prof Kunio Kawagoe, Science University of Tokyo, Yamazaki Noda-shi Chiba-ken 278, Japan.

Source : United States Department of Commerce News, October 11, 1985

#### New FEMA Director

General Julius W Becton, Jr., has been named the new Director of the Federal Emergency Management Agency. A career army officer who retired after 40 years of service, Becton was the Director of the US Office of Foreign Disaster Assistance at the time of his nomination. In that capacity, he oversaw the drought relief project for Ethiopia and, most recently, the US response to the Mexico City earthquake.

It seems likely that General Becton's previous approach to international hazard management and mitigation will be applied at the national level. Tasks that Becton saw as important for OFDA have applicability to FEMA's mandate: hazard analyses, vulnerability analyses, preparedness program development and support, technical assistance, technology improvements and transfer, and training programs.

Source : Natural Hazards Observer, Vol X, No 3, January 1986.

#### NATIONAL BUSHFIRE RESEARCH UNIT - CSIRO

The recently-announced National Bushfire Research Unit (NBRU) will set out to provide a focus for the bushfire research effort throughout Australia, according to Dr Joe Landsberg, Chief of the CSIRO Division of Forest Research, Canberra.

"The Unit, which will operate out of CSIRO Forest Research Headquarters in Canberra, will co-operate with all other groups or individuals doing research on bushfires," Dr Landsberg said.

"It will be a highly mobile unit, able to move its staff and equipment wherever they are needed. The unit will concentrate on problems relevant to all parts of Australia. The results of its work should be applicable anywhere but if there are special problems in particular areas, of course these will be addressed.

Dr Landsberg said that the Unit had been set up in response to calls from the House of Representatives Standing Committee on Environment and Conservation and a report by the Australian Forestry Council, together with widespread public demand.

"The NBRU will have a total staff of 12. Two of these will be located in the Division of Atmospheric Research in Melbourne, to work with four staff from that Division on better prediction of atmospheric conditions affecting bushfires, eg wind speeds in hilly terrain. This Melbourne group will have available to it the considerable expertise in meteorology, physics and fluid dynamics associated with the Division of Atmospheric Research.

"The main group of nine staff will be located in Canberra. They will work on predicting fire behaviour, fire suppression technology and fire management systems. Both the Canberra and Melbourne groups will be directed by the head of the NBRU, Mr Phil Cheney, who will be located in Canberra," he said.

"The Canberra and Melbourne groups will work in close collaboration. The Canberra group will be in close contact with people investigating the effects of fires on vegetation and with scientists at Duntroon who are interested in modelling fire behaviour.

"Salaries of NBRU staff will be paid by CSIRO but, because of recent cutbacks in funding,

and in line with the policy of the Government to seek greater community involvement in research, the Unit will be seeking support from state agencies and the private sector. It will also be undertaking contract research. The Unit will have a Steering Committee, consisting of Mr Cheney, myself, Mr Tony Lamb, Member of the House of Representatives for Streeton in Victoria, and about 4 others members drawn from bodies who provide support".

Dr Landsberg pointed out that this committee would ensure that the interests of the community were paramount in considering the research to be done by the Unit.

He said that the main thrust of the work of the NBRU would be on fire behaviour in relation to weather, and on fire control.

"The behaviour of bushfires depends on landscape characteristics, fuel load, and the prevailing weather. It is when this combination is optimum for fire that the situation really gets out of control. This was well demonstrated by the Ash Wednesday fires in 1983, and many of the fires in 1984, such as the grass and scrub fires in New South Wales. But there is a need for much more detailed information on fire behaviour.

"It is essential to fire fighters to be able to predict how fast a fire will travel, and how large it is likely to become. To provide such information modern technology such as computers and infra-red scanning equipment, as well as the best communications equipment, must be used. Computers can carry up-to-date information about the condition of rural land; if we add to this information about the weather at the time a fire is located and calculate, from knowledge of fire behaviour, how the fire is likely to move, the resulting information will be of enormous value to fire fighters.

"Improved knowledge of fire behaviour can also, of course save lives. Many of the lives lost in bushfires are lost because people did not understand fire behaviour. Even experienced fire fighters can be deceived," Dr Landsberg said.

"Mr Cheney will be making sure that the results of the research done by the Unit are easily understood by the volunteer firefighters and the general public and he will be seeking better ways to control and combat fires. We also expect that members of the Unit will be able to advise local organizations and help in educational programs", he said.

"Pioneering work on fire behaviour in dry eucalypt fuels and annual grasslands was done by the late Alan McArthur and others. We need to extend this work to other fuel types so that the nationally used Fire Danger Rating System can be improved and applied to all fuel types throughout Australia".

Dr Landsberg pointed out that setting up the

Bushfire Research Unit did not mean that within a few years the danger of major bushfires would be past.

"There is a long road ahead along which we must accumulate knowledge, organize the knowledge we have and translate it into recommendations for action. We must improve our use of technology and the way we organize ourselves. Bushfires will be with us for a long time yet, but hopefully the new Unit will accelerate our progress towards managing both the fires and their consequences."

Source : CSIRO Backgrounder 22/6

#### FORTHCOMING TRAINING ACTIVITIES

##### ACDC

6 - 24 April	SES Staff Development Course
4 - 9 May	CD Welfare Managers Course
11 - 16 May	SES Controller/Coordinator Course
25 - 30 May	CD Planning for Public Service Officers Course
1 - 6 June	Leadership Course
10 - 13 June	Major Urban Disaster/Civil Defence Study
15 - 20 June	Defence Force Officers Course
22 - 27 June	CD Planning for Local Government Officials Course

Students must be nominated to attend any ACDC course, by either the Director, State/Territory Emergency Service(s) or the Director General, Natural Disasters Organisation. Enquiries should be addressed to the State/Territory Emergency Service Office in each capital city, or NDO in Canberra.

##### Earthquake Risk in the Australasian and SW Pacific Region, Sydney 2 - 3 December, 1986.

Sponsor : The Specialist Group on Solid - Earth Geophysics and the Institution of Engineers, Australia.

Where Eagle House, Milsons Point, Sydney

Purpose : The purpose of the Seminar is to review the earthquake risk in the Australasian and southwest Pacific region. In part-

icular it will serve as a forum for discussing earthquake engineering work currently being undertaken in the region. Topics to be addressed include, the distribution and occurrence of earthquakes, strong ground motion caused by earthquakes, and the effect of strong ground motion on soils and buildings. Papers will also be presented on building codes, the effect of earthquakes on insurance premiums, and case histories of the design and construction of buildings in regions experiencing earthquakes.

The meeting is being held in December 1986 to take advantages of the presence in Australia of Professor Bruce Bolt, the Director of the Seismographic Stations at the University of California, Berkeley, USA. Professor Bolt is a world authority on earthquakes and their effects.

Proceedings : Extended abstracts of all papers presented at the Seminar will be available to conference participants.

Who Should Attend: Consulting Engineers, structural engineers, earthquake engineers, natural disaster and civil defence planners, architects, insurance and reinsurance officers, seismologists.

Costs : Total costs including lunches are anticipated to be \$90 - \$100 (without accommodation).

Enquiries : Information regarding the program and the registration procedures can be obtained from :

The Conference Manager,  
Earthquake Engineering 1986,  
The Institution of Engineers, Australia,  
11 National Circuit,  
Barton ACT 2600,  
Telephone (062) 73 - 3633.  
Telex AA 62758.

Additional copies of TMD, or changes of address

Please complete and return the following to the College :

NAME

\_\_\_\_\_

ADDRESS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## SOME RECENT ACQUISITIONS TO ACDC LIBRARY

The Macedon Digest will include information on selected titles recently added to the College library collection. This will assist readers to appreciate the range and scope of material held. Items may be requested on inter-library loan through your nearest library using the approved AACOBs forms.

BUTTARAVOLI, Philip M & STAIR, Thomas O  
Common Simple Emergencies. Brady's Series in  
Emergency Medicine. Bowie, Maryland, Brady  
Communications Co. (A Prentice-Hall Co.),  
1985. 616.025 BUT

CARTER, Air Vice-Marshal W. Procedures &  
Guidelines for Disaster Preparedness &  
Response. Pacific Disaster Preparedness  
Project, Manual No. 1. Pacific Islands  
Development Program, East West Center,  
Honolulu, Hawaii, 1984. 363.348099 CAR

CUNY, Frederick C. Disasters & Development.  
New York, Oxford University Press, 1983.  
363.348 CUN

FACT & FUTURE : Australia's Technology Outl-  
ook. Edited by Robin Bishop & Daryl Douglas.  
Productivity Promotion Council of Australia,  
1984. 338.060994 FAC

FORISHA-KOVACH, Barbara. The Flexible  
Organisation: A unique new system for  
organizational effectiveness and success.  
Englewood Cliffs, N J., Prentice-Hall, 1984.

658.406 FOR

HARWELL, Mark A. Nuclear Winter: The Human &  
Environmental Consequences of Nuclear War.  
New York, Springer Verlag, 1984. 355.0217 HAR

HORNER, D M. ed. The Commanders : Australian  
military leadership in the twentieth century.  
Sydney, Geo. Allen & Unwin, 1984.  
355.00922 COM

HOW TO DEAL WITH THE GOVERNMENT .. and how to  
cut the Red Tape. A Margaret Gee Information  
Publication, 1984. F342.9406 HOW

HUGHES, John, ed. Computers and Education :  
Dreams & Reality. Second Australian Computer  
Education Conference, Sydney, September 1984.  
001.6407 COM

LEWIS, David V. Power Negotiating Tactics and  
Techniques. Englewood Cliffs, N.J., Prentice-  
Hall, 1984. 158.5 LEW

McKAY, Jennifer. The Role of Regional  
Authorities in Floodplain Management in  
Australia. Working Paper No. 2. James Cook  
University of North Queensland, 1984.  
P354.940082329 MAC

ROCKE, F A. Handbook of Units & Quantities.  
Lucas Heights, AAEC, 1984. F530.810202 ROC

SAN FRANCISCO CORPORATE DISASTER PLANNING  
GUIDE. San Francisco Red Cross Disaster  
Resource Center, American Red Cross, 1982.  
P363.3409794 SAN

SCHMIEMAN, Susan. Macpaint: Drawing, Drafting  
Design. Bowie, MD, Brady Communications Co.  
Prentice-Hall, 1984. F001.6443 SCH

WORLD HEALTH ORGANIZATION. Effects of Nuclear  
War on Health and Health Services. Geneva,  
WHO, 1984. F363.3498 WOR

If undelivered return to:

Australian Counter Disaster College  
Mt. Macedon  
Victoria 3441.  
Australia