NEWSLETTER

Operational Research Society of New Zealand (Inc.)

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WELLINGTON.

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EDITORIAL

What with the 'silly season' hiatus and my secondment from AMD to Forest Research Institute at the beginning of last month, this is the first newsletter of the year and the first of my editorship. It is therefore more appropriate for me to wish you all a successful Year of the Ox since the Lunar New Year came some three weeks later than 'The Year After'.

1985 promises to be an exciting year for ORSNZ. Already we would have had Martin Fieldhouse speak at four centres on Karmarkar's algorithm for linear programming. Plans are well in hand for the guru of LP, George Dantzig, to be guest speaker at the Annual Conference. So this is a not-to-be-missed event.

Vacancies at AMD and movements of some Society members underly the buoyant market for people with OR skills. The Society continues promotional activities at the university level(more on this elsewhere) with an expanded education budget and plans to create an awareness of OR at the high school level in the near future.

The 1984 AGM saw significant changes to Council. Yours truly replaces Sue Nicoll as Newsletter Editor. Sue has decided to devote more time to deer recovery in the wops. My running colleague, Bruce Benseman replaced Prof Merv Rosser as Society President. A well-known correspondent profiles both in this issue.

I would like to remind you all that the Newsletter is your mouthpiece, not mine. Your opinions on issues affecting the Society or the profession, notices and reviews of activities, book reviews, odd snippets and other items of interest would be greatly appreciated for inclusion in the Newsletter. Send material to me at the above address.

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ORSNZ Council 1984/85	
President:	Bruce Benseman
Vice-President:	Andrew Smith (International)
Secretary:	Vicky van den Broek -Mabin
Treasurer:	Karen Garner
Council Members:	Hugh Barr (APORS, membership promotion)
	Mike Cox (IAOR, ORS(UK))
	John Davies (Dep. Treasurer)
	Gary Eng (Newsletter Editor)
	Tapas Sarkar (Library,Circulation)
	Tony Vignaux (Education,Royal Society)
Ex Officio:	Fred Baird (Canterbury Chm)
	Bob Cavana (Wellington Chm)
	David Ryan (Auckland Chm)
	Hans Daellenbach (Journal Editor)

N.Z. Council
Box 904,
Wellington

Wellington Branch
Box 904,
Wellington

Auckland Branch
C/- Dept T.I.M.
Auckland University
Auckland

Canterbury Branch
C/- Economics Department
University of Canterbury
Christchurch.

SCICON Mathematical Programming System

Scicon Ltd (a member of the BP Group) is a leading manufacturer and supplier of Mathematical Programming software. Its products include a matrix generator generator (MGG), optimisation package SCICONIC/VM, MicroLP and MiniLP which can solve problems of up to 300 rows by 500 columns and MicroFEED and MiniFEED which are designed specifically to solve Feedmix type LPs.

Scicon is seeking a distributorship in New Zealand. Anyone interested should contact:

Mr. P. Bryan-Tatham
Math. Prog. Products Manager
Scicon Ltd
Brick Close
Kiln Farm
Milton Keynes
MK11 3EJ
ENGLAND

New Journal

The 'New Zealand Journal of echnology' commences publication his month. Subscriptions ($42 per ear for 4 issues) and further nformation available from:

The Publications Officer,
SIPC,
P.O. Box 9741,
Wellington

The $64,000 Question

After his last conference effort, 'Valuation of Inventory with Application to Slow-moving Inventory under Inflation and Declining Demand', will well-known member, John George, be able to sell his expertise to all those booksellers with piles of Orwell's '1984' to get rid of?

YOUNG SCIENTISTS'S FUND

PRINCE AND PRINCESS OF WALES SCIENCE AWARDS

These two awards are administered by the Royal Society of New Zealand. The first provides funds of up to $1000 to assist young scientists (under 32) to attend their first overseas conference(s). The latter are awarded to NZ scientists and technologists to work overseas for short periods.

Details of these awards are usually contained in the Royal Society newsletter. Further information available from:

The Executive Officer
Royal Society of New Zealand
Private Bag
Wellington

I.F.O.R.S.

INTERNATIONAL FEDERATION OF OPERATIONAL RESEARCH SOCIETIES

letter from the president

THE FIVE DECADES OF OPERATIONAL RESEARCH

No. 27, March 1985

In 1938 the term "Operational Research" was created and used for a team in the Royal Air Force of Britain (see Harold Larnder: "The Origin of Operational Research", in: Operational Research '78, ed. by K.B. Haley, Amsterdam 1979, pp. 3-12). The field developed and grew and survived some changes during its history of now almost five decades.

In the decade of the forties, Operational Research was more or less understood as a pragmatic interdisciplinary approach to the organisation and operation of sociotechnical systems and, in particular, to the solution of urgent and important management problems, mainly in the military field.

In the decade of the fifties, Operational Research received a solid foundation of mathematics. This was a period full of basic scientific and technical innovations. Linear programming (duality theory, upper bounds, decomposition, cutting plane techniques included), dynamic programming, network analysis techniques, network flow algorithms, exponential smoothing were inventions of this decade, and also game theory, stochastic processes and queueing theory, simulation techniques belonged to the fields of rapid development in those years. Branch and bound and systems dynamics came with the step to the sixties. In addition, the fifties brought the penetration of Operational Research into private enterprises. The fifties were the decade in which the first dozen of national Operational Research Societies and IFORS as their International Federation were founded. Many of our most important journals started in the fifties.

In the decade of the sixties, Operational Research was promoted to an academic discipline. Uncounted universities all over the world established Operational Research programmes; many textbooks and monographs were written. The Operational Research journals grew in number and size. Many new Operational Research Societies were founded, and most of our Societies enjoyed a steady increase in membership. In addition to the military field and the private enterprises, public authorities became the third area of application. The mathematical techniques were refined and improved such that the technical tool kit for the seventies was an almost perfect one.

The seventies were a decade of consolidation. Equipped with the kit of powerful tools many problems could successfully be treated in practice, and much of the Operational Research work became publicly acknowledged. However, the seventies were also a decade of stagnation in our field - at least the second half. One indication of stagnation among others was that the Operational Research Societies ceased to grow in size. The period of stagnation was accompanied by a critical discussion about the content, the purpose, and the future of Operational Research.

The eighties may be considered as the decade of challenge for Operational Research. We have a powerful technical tool kit, but there is competition from information processing, from artificial intelligence, from logistics and robotics and other branches of technology and automation. We can build upon our old virtue, interdisciplinarity, but are we still sufficiently experienced in this virtue? At least, there is a huge variety of problems which wait for feasible solutions to which the Operational Research community can contribute. Today's world is not only shaken by several regional and civil wars, by the confrontation between the West and the East, by the North-South-Conflict, and by financial breakdowns, unemployment, overpopulation, hunger, crime, lack of education, weakness of leadership etc. It is also shaken by strong waves of technological development. To keep the world and its parts - at the national and regional levels as well as at the level of the enterprise - under control requires advice from many experts. What will the contribution of the Operational Research community be?

Heiner Müller-Merbach
President of IFORS

The 21st AGM

Seventeen members attended the Society's 21st AGM, held in the convivial surroundings of the Corner Bar, de Brett's Hotel, Wellington on 22 November last. Not the Wellington weather but an airport crash firemen's strike prevented our outgoing President, Merv Rosser and guest speaker, David Jack(AHI) arriving from Auckland.

Vice-President, Bruce Benseman chaired the meeting and duly presented the Annual Report. Treasurer Karen Garner presented the 1983/84 accounts. Due to the Society's continued healthy financial position, subscriptions are to remain at their current level.

Officers for 1984/85 were all nominated and (democratically) elected unopposed. Bruce Benseman becomes our President and Andrew Smith ascends to the Vice-Presidency. Gary Eng and Tapas Sarkar are new faces on Council. (A list of Council members and portfolios appears elsewhere in this newsletter. Ed.)

General business covered the age old topics of conference theme and overseas visitors.

Without the traditional AGM speaker, the meeting ended about 6.30pm and those present voted to seek their evening's entertainment elsewhere.

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For those with NZ$220 +/- (depending on whether the 'Kiwi' is floating or sinking) to spare:

The Proceedings of the 10th IFORS Triennial Conference on Operations Research, J.P.Brans(Ed). 1984. xx+1100pp. ISBN 0-444-87561-1.

VACANCIES

The Applied Mathematics Division of DSIR has vacancies in its Operational Research Section and Industrial Statistics Section. The Operational Research position is a permanent one. It is based in Auckland but it may be appropriate for an appointee to have the first year in Wellington. The Industrial Statistics position is a temporary one for one or two years but it is very likely to become permanent. It is based Wellington.

For both vacancies the work will involve taking part in AMD's services for Industry and Government. This includes carrying out projects, providing advice and conducting seminars for clients. Currently the Operational Research Section has interests in transport/location problems, inventory control, production scheduling and simulation. The Industrial Statistics Section is particularly interested in quality assurance and industrial experiments.

The appointees will also be encouraged to carry out research in areas of interest to the Division.

Requirements:

- -Good honours degree, MSc, Diploma, or PhD.
- -Ability to use computer packages.
- -Ability to communicate.
- -Potential to solve practical problems.
- -Enthusiasm, commonsense, initiative, etc.

Apply to:

The Director,
Applied Mathematics Div.
DSIR,
P.O. Box 1335
Wellington

MERV ROSSER - PAST PRESIDENT

Last October, Prof Merv Rosser resigned as ORSNZ President after holding the position for 4 years. He was the first out-of-Wellington president. It was a bold move for the Society." says Merv. But it it worked and it brought Wellington and Auckland closer together.

Under his leadership, Auckland Branch grew to 52 members, and total ORSNZ membership inched up from 200 to 212. Merv constantly pushed for higher subscriptions. "We seldom value something which costs us little," he says. "We need more money to attract overseas visitors and to upgrade the newsletter." While Merv was President, famous names like Rolfe Tomlinson and Harvey Wagner visited New Zealand; and the newsletter blossomed into colour (and shed editors like snakeskins).

One of Merv's treasured memories was the Royal reception in 1983. "I want to see Prince Charles and Princess Di," he said.

ORSNZ appreciates Merv's work and leadership. Council remembers his warmth and his guidance.

BRUCE BENSEMAN - NEW PRESIDENT

Bruce Benseman became ORSNZ President after a long apprenticeship. "I really tried to avoid the job," he said. He was Wellington Branch Secretary/Treasurer for 2 years, then spent 7 years on Council, first as Treasurer then as Vice-President.

Bruce works at the Applied Mathematics Division of the DSIR as an OR consultant. "Its a great job - plenty of practical problems and no teaching duties." When you walk into his room you meet a clear desk and an amber VT220 winking at you. "My boss thinks I am a computing freak," he says, "but today's packages have revolutionised statistics and optimisation. And visual simulation is very exciting."

Bruce currently specialises in vehicle-scheduling and production-distribution planning. He has also worked on port studies and economic planning models. How does he manage so many projects at once? "First things first, second things later. Our DSIR charging policy helps select the important projects."

He looks out the window.Wellington Harbour sparkles below. "Come for a run with us." Bruce has been addicted to running for 22 years. I decline. Climbing Wellington hills is crazy in any weather.

Felicity Ferret.

(Squirm, squirm. Ed.)

People

AMD, Wellington must not be the place to be in 1985, in addition to the Editor's temporary departure,

Tim Ball has taken leave to inaugurate the Deming Institute in Auckland.
Peter Thakurdas has returned to AMD's substation in Auckland.
Graeme Edwards has left AMD (Auckland) for the riches of the private sector.
Rona Bailey replaces Gary Eng at AMD.
Former newsletter editor, Patrick Garqiulo, has changed his address yet again. This time he is trying his luck in Auckland.
Paul Margetts has returned to his homeland (temporarily?) and is working for British Robotic Systems in London.
We are pleased to announce the betrothal of former Wellington branch secretary/ treasurer, John Hayes, to Cathy Randall.

FORTHCOMING CONFERENCES

Here ...

May	20-24	Pacific Statistical Congress (Auckland University)

and overseas ...

April	12,13	O.R. Symposium on Decision Support (National University of Singapore)
April	29-May 2	ORSA/TIMS Meeting: "OR/MS & High Tech", Boston
May	13,14	2nd NOAS Conference on O.R. in the Energy Sector (Oslo)
August	5- 9	XII International Symposium on Mathematical Programming (MIT, Cambridge, Massachusetts)
	26-28	Australian Society for Operations Research, 7th National Conference (Adelaide)
September	10-13	U.K. Operational Research Society Annual Conference (Durham)
	25-27	O.R. Models on Microcomputers (Lisbon, Portugal)
October	2,3,4	Systems Analysis Applied to Water and Related Land Resources (Lisbon)

Further details may be obtained from Vicky van den Broek-Mabin, Box 904, Wellington (Ph. 727-855).

STUDENT NEWS

Although it is only a few weeks into the academic year, student members should already be giving some thought about taking advantage of the (financial) benefits the Society offers.

Those doing projects should consider submitting their work for the Student Paper Prize. $200 for 1st prize and $100 for 2nd means that its worth the effort writing it up in a form suitable for the competition.

The Society also offers travel grants for students wishing to attend the Annual Conference. With the Conference in Wellington this year, job-seekers could use the opportunity to 'knock on a few doors' while in the Capital.

More details on both in a later newsletter.

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WELCOME TO NEW MEMBERS

New members since the last newsletter are:

Douglas Bowering	- Auckland University (student)
Mr C.K.G. Darkey	- MAF, Ag. Research, Wellington