



NEWSLETTER

Operational Research Society of New Zealand (Inc.)

Registered at C.P.O., Wellington, as a magazine

Editor: P.J. Gargiulo, 21 Maher Street,
Upper Hutt.

June, 1982.

AS I SEE IT.

O.R. in New Zealand is in its infancy. Practitioners in this country are pioneers. Pioneers of an exciting and fast growing discipline. Unlike our bigger 'brothers' - the Accountants and Lawyers - we are vulnerable to criticism and bad comments. An Accountant can be found embezzling, but accountancy continues as a profession. O.R., however, is not as strong. Any indiscretion can reflect upon the whole profession. If managers get a poor impression of O.R. then the pioneering job being done so well by so few at present will be made unnecessarily more difficult. At the same time the future of current students will be made bleak to say the least.

Because of this fragility every care must be taken to protect the reputation of all O.R. practitioners. To this end I suggest that all reference to O.R. be taken out of all job description within the public sector. All O.R. practitioners currently employed by Govt., should immediately change their job names and renounce all association with O.R. To make it easy, I suggest they change their name to MOUSE (Monitors & Organisers of Untold Superfluous Expenditure) or if there is more than one of them MICE (Managers of Investigative Computerised Extravagance.)

Any O.R. practitioner who can't come up with constructive methods of increasing productivity while decreasing expenditure by 3% should be shot - or at least taken down to a dungeon and introduced to a Dragon.

Editor.

PROFESSOR K.D. TOCHER, B.Sc., Ph.D., D.Sc.

Members were sad to learn that Professor Tocher died suddenly on 30th December, 1981. Those that knew him, will realize that he was truly a giant in our field, as in many other fields - Simulation, Computing and Statistics especially.

In all his roles, Professor Tocher has excelled and will be sadly missed. He is survived by his wife Charlotte, two children and grandchildren.

Review

Student Projects in OR

(Review of a seminar at Shell House, Wellington, May 6 1982)

At this meeting, three ex-students in OR recalled their final year projects. Gary Eng (Canterbury) began by describing a short-term (1 year) planning model for the forest industry. The model involved a number of separate analyses: first, determining the year's proposed product requirements (sawlogs, peelers, posts, pulp or waste). Second, determining what possible types of product could be made from the resource (forests) available for cutting. Third, determining the optimal way in which the timber should be cut so as to meet product requirements.

A unique aspect of the model was the explicit consideration of the fact that a log is not straight and can be used for a variety of (sometimes mutually exclusive) different products. A Dynamic Programming formulation was used to model this aspect, the results of which (optimal returns and cutting patterns for different log types) were then fed into a Linear Programming model in order to solve the allocation problem for the whole available forest resource. These features improved on traditional planning procedures which assume a constant yield of products from a given set of log types. The model is currently being used in the Fijian forestry industry.

Gary is now working at the Applied Mathematics Division, DSIR, Wellington.

Trevor Kearney (Victoria, previously Massey) described his work in developing a Primal Simplex network programming computer procedure.

Known as PROC NAPS the procedure is used within the SAS Statistical Analysis System, thereby permitting considerable flexibility with respect to data input, output and other data processing functions.

Many OR problems can readily be expressed as NPs, and they are becoming widely used in the US because of their fast solution speed over LPs and other network techniques. Trevor described applications to manpower scheduling, inventory control and financial management and discussed how new algorithms being developed (networks with gains and side constraints) will further widen their field of application.

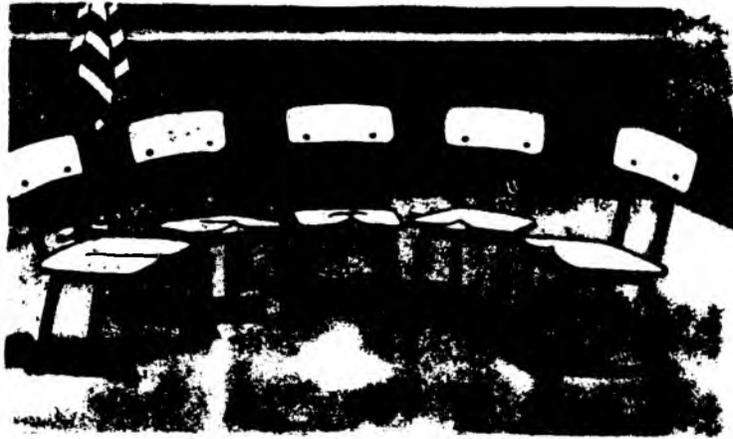
Trevor is now pursuing work on a masterate in OR at Victoria where he will continue work on theoretical developments in network programming.

Third to speak was Mark Houlston (Victoria) who attempted to bridge the gap between the pragmatic modelling approach of engineers and the sophisticated elegance of economists. This he did by evaluating the agricultural sector component of the Ministry of Works National Investment Impact Model (NIIM) with respect to the Ministry of Agriculture & Fisheries view of the sector. Concentrating on the beef industry sub-sector he identified a number of practical difficulties in large-scale dynamic modelling: positive feedback; incompatibilities between econometric and dynamic modelling approaches; deaggregation (modelling a very small component of the much larger economy); the quality and quantity of time series data (particular investment data); and the problem of non-free market price setting schemes.

Mark is now employed by DSIR and seconded to the Ministry of Agriculture & Fisheries economics research section.

Reviewed by Peter Mellalieu.

CONFERENCE



CONFERENCE 82

At last the 4 years are up and we are allowed back Canterbury for another conference.

John George and his mates have, as always, worked hard to ensure a great conference. A special effort has been made for a session on forestry planning - so expect to meet a Lumberjack or two.

All this effort of course is completely wasted as I I'm only going for another Canterbury conference dinner and all my trendy mates are only going for a skiing holiday.

Whatever your reason a good time is guaranteed for all. You may even learn a bit from a paper or two if you make it to them.

See you all on August 23-24, 1982.

LETTER TO THE EDITOR

Dear Sir,

O.R. groups know what happens when Ackoff doesn't measure up.

"Julie & I" Benseman.

- Julie and I should know what happens to "In" AMD jokes.

Ed.

VISIT BY PROF ROLFE TOMLINSON

Plans are well in hand for the visit this year of Rolfe Tomlinson. He is currently Professor of Systems and Operational Research at the University of Warwick and Co-Director of the Centre for Research in Industry, Business and Administration. For 12 years, he was Managing Director of the Operational Research Executive of the National Coal Board in the U.K. where he was responsible for a team of over a hundred O.R. workers. In 1977, he was seconded for 3 years, to establish an international team of researchers to study Management and Technology problems at the International Institute for applied Systems Analysis (IIASA) in Vienna.

He is President of the European Association of O.R. Societies and a past President of the U.K. O.R. Society.

His tentative itinerary together with the organisers of the various functions is given below.

THURS. 19th August.

Canterbury University Seminar - Learning Curves and Technology Forecasting (John George - Economics Dept.)

MON. 23rd and TUES. 24th August.

O.R.S.N.Z. Annual Conference at Canterbury University - Key-note Address and a Paper.

WED. 24th August - Wellington

A.M. Seminar. Contact Brian Smith, (Info Sec Victoria Uni.)

P.M. Seminar for Management.

THURS 25th August.

A.M. Auckland University Seminar - Learning Curves and Technology forecasting (Merv Rosser) - TAM Sch of Engineering.

P.M. Seminar for Management.

*Andrew Smith
International Affairs.*

WELLINGTON BRANCH MEETINGS

JUNE 17 - 12.20

Venue - Royal Society of N.Z. 11 Turnbull St,
Thorndon.

Speaker - Ross Reuner, University Statistician,
The Institute of Stats & O.R. VUW.

Title - "The truth please but only if it helps".

The address will cover 3 years of consulting as University Statistician. Attention will be given to the absence of rigour in some Science and Social Science Research, due either to an insistence on following traditional literature or the adoption of fashionable procedures.

JULY 8

Venue - Training Room, Ground Floor, B.P. House.

Time - Tea & Bikkies from 12noon - 12.30 start.

Title - My days in the Trenches -
or- Views with hindsight on being an O.R.
analyst.

Three speakers will discuss O.R. How it has affected their careers and how they now use it.

SPEAKERS:

Colin Walker - Transport Operations Manager,
Shell N.Z. Ltd.

Andre Milkop - Director of the Oil Market Directorate
Ministry of Energy.

Bill Foster - Corporate Planning Officer N.Z.P.O.

THE AMERICAN WAY OF LIFE IS TO
DWINDLE AWAY AN HOUR DRINKING
INSTANT COFFEE

SOCIAL NEWS:

POOR Gary Eng has joined the Applied Maths Division at D.S.I.R. after studying for an M.Sc in Operations Research at Canterbury University.

LUCKY Paul Baker has also moved to Wellington from Canterbury and now works for I.C.I. and Tyrrell Harms has left the Capital for Auckland.

RECENT NEW MEMBERS to be welcomed to the Society are Bing Soo, working at Massey, and very unlucky D. Hewson at the Post Office in Wellington.

The Society's Secretary, Vicky Mabin, is seconded to Trade and Industry until November and can be contacted there on 720-030.

Karen (whatsername) Garner will be overseas on leave from July till January 83, during which Treasury matters should be directed to Brian Smith, Victoria University.

John Scott, ex Vic, has now joined a Multinational shipping and trading company in Denmark. His address can be obtained by writing to the Editor.

Tom Moore, ex U of C is in the U.S. working for a company. ("into paper, cans, records and direct mail selling.) The editor also has his address.

work wanted

Warwick, University graduate B.Sc. Hons in Maths, Stats, O.R. & Economics with some experience in the broad O.R. area would like to work in N.Z. in O.R., Computing, or Systems Analysis area.

If you may be able to offer suitable employment, please contact (for his further details) Vicky Mabin, Tel 720-030 ext 380, or write C/- Investment Unit, Trade & Industry, Private Bag, WELLINGTON.



1982 Conference
University of Canterbury
Christchurch
23, 24 August

CONFERENCE HIGHLIGHTS:

(1) Visiting overseas speaker :

Professor R. C. Tomlinson has considerable experience in applying O.R. and running O.R. groups.

(2) Session on Forestry planning.

Chaired by Mr D. A. Elliot, Director of Forest Planning NFS, this session is aimed at discussing the problems of forestry planning and presenting a wide range of O.R. models in the forestry sector. A special invitation is given to anyone interested in forestry planning.

(3) Survey papers.

A number of survey papers on various aspects of applied O.R. are to be presented at the conference.

REGISTRATION & COSTS :

Registrations will be received up to the date of the conference, however a late fee of \$5 will be charged for registrations after 1 July, 1982. Accommodation is available at the University's hall of residence, Ilam Halls, for any (or all) of Sunday, Monday and Tuesday nights. These must be booked and paid for by 1 July, 1982.

Conference fees are:

Standard (including dinner)	\$40
Student (excluding dinner)	\$10
Dinner only (students & guests)	\$15
Accommodation at Ilam Halls (bed & breakfast)	\$13 per night.

JOHN A. GEORGE
CONFERENCE SECRETARY
ECONOMICS DEPARTMENT
UNIVERSITY OF CANTERBURY.

REGISTRATION FORM

18th ANNUAL CONFERENCE, OPERATIONAL RESEARCH SOCIETY NZ (INC).

NAME

ADDRESS
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PROFESSIONAL STATUS & AFFILIATION
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I WOULD LIKE TO SUBMIT A PAPER - TITLE:
.....

I WOULD LIKE ACCOMMODATION AT "ILAM HALLS" FOR
PEOPLE FOR SUNDAY, MONDAY, TUESDAY NIGHTS (delete nights not
required).

ENCLOSED SUM \$

STANDARD FEE ; STUDENT FEE ; EXTRA DINNERS

NAME OF GUEST

MAKE CHEQUES PAYABLE TO: OPERATIONAL RESEARCH SOCIETY OF NZ.

ADDRESS TO:

J.A. GEORGE,
CONFERENCE SECRETARY,
ECONOMICS DEPARTMENT,
UNIVERSITY OF CANTERBURY,
CHRISTCHURCH,
NEW ZEALAND.