



# NEWSLETTER

*Operational Research Society of New Zealand (Inc.)*

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UNIVERSITY OF AUCKLAND

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## JOIN A FRIEND

Currently the O.R. Society is trying to reach new members.

Too few people really know what O.R. is all about, there must be people in your firm or institution who could benefit from the O.R. Society. Just as importantly, could the Society benefit from the input from your colleagues?

It is not expected to double membership overnight, but hopefully this campaign will motivate some of you into talking about O.R. to people who should know more about it. Only by your efforts will knowledge of the society grow.

Go to it - spread the word today.

### NEW MEMBERS

Membership continues to increase, and a very warm welcome to our new members. Welcome to the fold.

- |                  |   |
|------------------|---|
| W.R. Baker       | - Canterbury Student                                      |
| P.N. Bertram     | - Victoria Student  |
| Dr S.J. Byrne    | - Maths Dept, Massey University                           |
| J.G.P. Clark     | - Air NZ  |
| O. Evans         | - PROGENI   |
| I.E. Grayburn    | - BP  |
| Ms B.E. Howell   | - Victoria Student  |
| A.T.G. McArthur  | - Lincoln College   |
| C. Moore         | - Ministry of Works & Development.                        |
| J.D. Read        | - Canterbury Student                                      |
| J.R. Sealy       | - Auckland Technical Institute                            |
| B.M.H. Sharp     | - Canterbury University, Centre for Environmental Studies |
| W.D. Templeton   | - Canterbury Student                                      |
| Ms P.A. Truscott | - Ashley Wallcoverings                                    |
| Dr D.S. Wright   | - Advanced Business Programme, Otago Univ.                |

### EDITORIAL

1980 had one more day than most, but there, innovation and finesse ended.

Strikes and protests at Southdown, trying to keep a process over a century old, employing 900 people, whilst down South some people are doing their best to stop latest technology to gain employment for several thousand.

We were, for some reason, permitted to watch England, Scotland, Ireland and Wales touring South Africa, while back here more 'long-haired licks' were plotting to ensure that the All Blacks and New Zealand will never meet their main sporting opponent.

Also in the 'non-sporting' field half the world boycotted the Olympics, the other half didn't know why, and now the original half can't remember.

It is customary in this country to stay up on New Years Eve to issue in the New Year. I'm sure I wasn't the only one this year who was there to solely ensure that the old year finished once and for all.

Editor

## NEWS OF MEMBERS

Dr Grant Read, Ministry of Energy, left on December 7th for the U.S.A. to take up a Fullbright Fellowship. While overseas he will undertake research into energy policy formulation and analysis. Initially Grant will be working at the Dept. of Industrial Engineering and Operations Research at the University of California at Berkeley. He expects to return to New Zealand after 18-24 months.

# conference

The 1980 OR Conference was held at Auckland University on 28-29 August. It was the sixteenth such national event of the society, and attracted over 70 participants of whom about 30% were from the private sector.

This year the Conference theme was that of "OR With its Sleeves Rolled Up". The Friday morning sessions were directed specifically at this theme and gave participants first hand knowledge of OR applications within three Auckland manufacturing concerns. Chris Hardley of Feltex Rubber outlined a recently implemented manufacturing control system at Feltex; their system is run on-line using a PDP11 and software modules supplied by NCA. Linda Wannan-Edgar described the inventory control system at Yates Seeds; the IBM software package ICS is used for inventory control and sales forecasting. David Jack of AHI gave details of a number of OR applications at AHI's glass manufacturing division; these included inventory control, production scheduling and batch mix calculations (LP).

Following the three talks, conferees were taken on factory visits to see for themselves some of the realities of OR within an industrial setting. The rationale behind many of the ideas expounded by Gene Woolsey at the 1979 conference became self-evident.

The Conference program included an interesting panel discussion on "OR Change-Makers - to be or not to be?" The panel consisted of Derek Vance (Air NZ), Chas Nieuwerkerke (Auckland City Council), Alister Tayler (NZ Fiberglass) and Lyn Frazerhurst (MIRINZ).

The paper "Wagon Scheduling between Christchurch and Wellington" (T.A. Moore and J.W. Griffin), awarded the 1979 Student Paper Prize, was delivered at the Conference. It provided a rather entertaining and stimulating finish to the Conference, and showed in particular the worthwhile work that can be done using Operational Research.

The social side of the Conference centred around the Conference dinner which was well attended and very enjoyable. Guest speaker, Tony Jacobs of the Manukau Technical Institute voiced a number of concerns and observations about unemployment and restructuring. Some quite lively discussion then followed from the floor. Overall the Conference was very successful, and our sincere thanks go to the Conference organiser, Peter Milson, and to Linda Wannan-Edgar and the rest of the Auckland Committee.

Brian Smith & Karen Garner

## BOOK REVIEW

"Decision Systems for Inventory Management and Production Planning" by R. Peterson, E.A. Silver. Wiley, New York 1979. 800 pp. Price about \$26.00.

This is a useful and readily understandable reference on inventory management.

Potential readers should not be put off by its length, as many useful points are made in the first four chapters (100 pages).

The authors discuss the reason for the importance of inventory from the macro-economic viewpoint, as an indicator of boom and recession, and how this contrasts with the micro-economic view of time series forecasting and economic order quantities of classical inventory theory. Obviously most firms consider objectives other than minimum cost inventory policies in determining the level of stock they carry.

## BOOK REVIEW

Distribution by value of inventory, and the rule of thumb that 20% of items account for 80% of the inventory cost, are also discussed. This leads on to suggestions for sophisticated rules for high turnover value stock, more simple rules for medium turnover value stock, and very simple rules for low turnover value stock rather than a complex system for all stock.

There are useful exercises, as well as a detailed case study to amplify the text. The book also includes the mathematical side of inventory control.

The book is readable, and managers can gain a useful understanding of policy issues from it. I would also recommend it for OR and production management professionals.

Hugh Barr.

## BOOK REVIEW