

NEWSLETTER

December 2003

Operational Research Society of New Zealand, Inc.
PO Box 6544, Wellesley St. Auckland, New Zealand, www.orsnz.org.nz

Promoting OR

By Russell C H Cheng

To anyone who practises operational research (OR) the subject seems such a useful and interesting one. However it is also clear that it is deserving of more recognition and support both as an academic subject and as an important practical management discipline. I wish therefore to consider ways that we should be promoting the subject and displaying its usefulness.

Two particular aspects seem especially important: how the subject is defined and recognised, and how the subject should be taught.

The most despairing question that an OR person is asked is 'What is OR?' Answering this question adequately seems a key issue. One aspect that we need to be sensitive to is that we are often doing the job that others in an organisation ought already to be doing, be it production managers, schedulers, planners and so on. If we are successful in tackling a management problem where others have not been, this is can be an explicit criticism of others' lack of expertise or competence. In this respect perhaps we have tried to claim too large a part of the management process. As someone coming from a mathematical background I should be willing to narrow our claim of expertise to a more quantitative one. But I can see that there is scope for a far wider definition covering soft systems techniques as well. I will leave colleagues who are specialists in such areas to consider their own. For me, as a simulationist with interests in statistical aspects, it is quite possible to promote simulation as a vital management tool, one that has a continual value for an organisation but which requires specialist knowledge not necessarily to be acquired by a general manager.

This brings us onto the need of an organisation to understand that effective use of OR in key parts of a management process can be vital. Just as financial or legal matters occur at specific points in any management enterprise, and expertise in these areas are automatically sought, so this should also be the case for the OR expert.

The most despairing question that an OR person is asked is 'What is OR?'

An obvious example is in my own field of simulation where there are many situations in setting up an organisational or operational process where a simulation study should be regarded as imperative. I can give examples of ghastly, almost incomprehensibly stupid, situations that have arisen and which, having been put in place, that are almost impossible to fix, but which could easily have been avoided by an initial simulation study.

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Newsletter publication dates are March, June, September, and December. Submissions deadline is the 15th of the month for the following month's issue. Send submissions by email to the Newsletter editor, name TBA, at newsletter@orsnz.org.nz.

Another problem that arises is when a technique has an established and recognised value and is already well integrated in the operational process. Then it may not even be regarded as OR. An example is the use of linear programming (LP) in the oil industry. There needs to be some kind of branding both of the software used and also some kind of 'signing off' of the process where OR receives a proper, formal recognition. Perhaps OR Societies have a role to play in initiating this form of accreditation. It might be useful to focus first on 'clean', classic OR problems and try to establish a more firm ownership of these.

For OR to gain acceptance it is vital, that an organisation appreciates and recognises OR as a discipline. This should permeate throughout the organisation, but often this is too much to expect. More realistic is the idea of a 'champion', someone quite senior in the organisation who is able to initiate and ensure proper participation of all those involved in implementing and maintaining an OR solution. Though leadership is needed it is something that has to be a team effort, with commitment and understanding of aims by all concerned.

There seems to be a tendency to introduce topics like OR, and also statistics, earlier and earlier.

Turning to the educational side, one important aspect is where OR should appear in the overall educational context. There seems to be a tendency to introduce topics like OR, and also statistics, earlier and earlier. OR often appears in school syllabuses in the form of 'decision sciences'. I am doubtful of the value of such an early introduction, before pupils have any maturity or even the basic mathematical skills. It is good for schools to understand the possibilities of OR, but it is career advisers that need to be better informed. It would be more effective to have regular open days run by universities and organisations with a good track record in OR, aimed not at pupils but at teachers and careers advisers.

When it comes to pupils, there is something to be said in holding back on the teaching of OR. I myself did not learn about LP until as a PhD student (even though I had attended courses in optimization). At that stage I had the proper

background in linear algebra to fully appreciate the full mathematical elegance of the simplex method - in a refreshing way not spoilt by earlier nibblings at the subject.

A good course at the undergraduate level would have a strong basic mathematical content in its first and second years. Classical OR topics would be covered (as a treat!) only when the proper mathematical foundation had been laid.

I hope I have not sounded too negative about OR. Quite the opposite, as I stated at the outset, much of its apparent problem is its wealth of potential and actual application. It is a constant surprise to me that not more people are drawn to the subject.

Professor Russell C H Cheng was scheduled to be an ORSNZ Visiting Lecturer for 2003. Although he had to cancel his lecturing tour at the last minute, for personal reasons, Russell graciously agreed to contribute the above Guest Editorial.

LETTER FROM THE PRESIDENT

Les Foulds has stepped down as President of ORSNZ (see elsewhere in his issue), and David Ryan has agreed take over; watch this space for David's first letter in the March 2004 issue!

DAVID M RYAN, FRSNZ

Congratulations to David Ryan on his election as a Fellow of the Royal Society of New Zealand! On 12 November, 2003, David was among 13 scientists elected as Fellows. The RSNZ press release noted:

Professor Ryan is a leading researcher in mathematical optimisation and set partitioning problems, whose work on solving massive scheduling problems with optimisation methods has been of enormous benefit to Air New Zealand and is recognised worldwide.

Congratulations on this magnificent achievement, David!!

HANS DAELLENBACH PRIZE 2003

In 2001, the Society established the Hans Daellenbach Prize to honour the considerable contribution of Emeritus Professor Hans Daellenbach to Operations Research and Management Science in New Zealand. The purpose of the award is to elicit, recognise, and reward outstanding examples of Management Science and Operation Research in New Zealand, and to encourage their dissemination in the international literature. The Prize is awarded every two years, at most, and only if a worthy candidate is nominated.

In 2001 the inaugural Prize was awarded to Professor David Ryan, of the Engineering Science Department at the University of Auckland. This year, the Prize has been awarded for only the second time, to **Professor Les Foulds**, of the Department of Management Systems at the University of Waikato, who had been nominated by Associate Professor Jim Corner. The judging panel considered that Les had clearly made a significant contribution to Operations Research, as both a theoretical and applied researcher, in this country and abroad, and made the award for his work on graph theory, and its applications in Operations Research to a wide range of fields including vehicle scheduling, facilities planning, traffic engineering, timetabling and molecular biology. They commented that:

Professor Foulds, with 4 books and more than 130 refereed articles, has built up an enviable professional reputation in the international literature. Although some of his work is theoretical in nature, Professor Foulds has been active in developing applications in areas such as the dairy industry, facility layout, and evolutionary biology in New Zealand and elsewhere. Although some of these applications and publications may seem a little out of the OR mainstream, the evidence suggests that they are undoubtedly applications which have been welcomed by those working in other fields, and which have contributed to raising the profile of OR in those fields. We can only be impressed by the comments made by international

commentators, not on in publishing this work, but in a variety of applications.

Recipients of the award receive a certificate, and an honorarium from the Society. This year, for the first time, the Society was also honoured to see this award highlighted alongside those of other scientific bodies at the inaugural Royal Society of the New Zealand awards banquet in Auckland. In return, recipients must give a plenary address on their work at the ORSNZ conference. Les regaled us all with the "confessions" of a man who had spent his life, not in criminal pursuits, but in striving to solve the mathematical puzzles prented by the world around him. Les also gave us to understand that, as he steps down from the ORSNZ presidency, he is now considering a range of options for his future career, and we wish him well in that endeavour.

Grant Read



Les Foulds receiving his Hans Daellenbach Prize citation from Grant Read

CALLS FOR PAPERS

17th Triennial Conference of the International Federation of Operational Research Societies

Hosted by INFORMS, Institute for Operations Research and the Management Sciences

July 11-15, 2005

Hilton Hawaiian Village Beach Resort & Spa
Honolulu, Hawaii

IFORS 2005 Committee

Chair, Organizing Committee
Jeffrey L. Arthur
Oregon State University
Arthur@stat.orst.edu

Chair, Program Committee
Martine Labbé
Université Libre de Bruxelles
mlabbe@smg.ulb.ac.be

The Preeminent International Conference in OR/MS ... In One of the World's Most Beautiful Locations

Six million years in the making, Hawaii is a breathtaking masterpiece of nature. It's inspiring, rejuvenating, revitalizing. The six islands of Aloha provide many different backdrops: smoking volcanoes and splashing waterfalls, undersea caverns and alpine streams, black lava deserts and deep green rainforest, botanical gardens where house plants grow into towering trees, and beaches that come in shades of gold and black, even green and red!

IFORS Triennial 2005 is your opportunity to experience all the beauty and excitement Hawaii has to offer... and, at the same time, to attend the preeminent international conference in operations research and the management sciences.

Our hotel, the Hilton Hawaiian Village Beach Resort and Spa, is set along the famous Waikiki Beach in Honolulu, on the island of Oahu. Lush tropical gardens, waterfalls, exotic wildlife, priceless artwork, multiple swimming pools and the beach itself are all there to enjoy. As Waikiki's only true resort, the hotel offers

restaurants and lounges, shopping, recreational activities and nightly entertainment. The IFORS Triennial 2005 technical program and many of the conference's social events will be held at the Hilton.

For information on Hawaii:

<http://www.gohawaii.com>

For information on the Hilton Hawaiian Village:

<http://www.hilton.com>

For information on the conference: Email meetings@informs.org; 800-343-0062 or 401-722-2595

Invitation to EURO XX, the 20th European Conference on Operational Research : OR and the Management of Electronic Services

4-7 July Rhodes, Greece

The Association of European Operational Research Societies (EURO) and the Hellenic Operational Research Society (HELORS) are pleased and honored to invite you to Rhodes to attend and enjoy "EURO 2004".

The island of Rhodes, the largest of the Dodecanese complex, is also known as the Isle of Sun. The famous poet Pindar mentions in one of his Odes that it was born of the union of Helios, the sun god, and the nymph Rhoda. The capital of this island, also called Rhodes, is actually three cities on one site - modern, ancient and mediaeval. Its history come back in 700B.C. and along the centuries has been gifted with a lot of monuments and sites worthy to see.

The fact that the 20th Conference of EURO has chosen as main topic "OR and the management of electronic services", a modern and very important topic for all researchers and interested companies, may represent an additional reason for you to join us on the beautiful Island of Rhodes. The conference is taking place in a five stars environment, which is only 50 meters from the sea. It is a great opportunity to combine your participation to the conference with holidays in Rhodes. Therefore, we are waiting for you and your whole family, and mostly don't forget to mark your calendars: **July 4-7, 2004, Rhodes, Greece.**



General information

Meeting venue

Rodos Palace Hotel

Triton Ave., Ixia, P.O. Box 121, Tel: (0030) 2410 25222, 26222, Fax: (0030) 2410 25350
Web Site: <http://www.rodos-palace.gr>

Language

The official Congress language will be English.
No simultaneous translation will be provided.

Important dates

On-line submission for abstracts starting:

November, 2003

Early registration starting: **November, 2003**

Deadline for abstract submission: **March 1, 2004**

Notification of acceptance: **March 30, 2004**

Deadline for early registration: **April 15, 2004**

Second Announcement and Preliminary

Programme: **April 15, 2004**

Deadline for discussion presentation award submission: **June 1, 2004**

Final programme: **July 4, 2004**

Conference: **July 4-7, 2004**

Accommodation

Block reservations have been made for the participants at special rates in different hotel categories.

Euro Sponsorship for low currency countries

Limited support will be available for authors from Low Currency Countries. Authors wishing to apply for such support are requested to indicate this on the abstract submission form.

Second Announcement and Preliminary Programme

The Second Announcement and Preliminary Programme will be distributed by April 15, 2004. Further information on registration payments, hotels and optional tours will be included.

For further information, check www.Euro-rhodes2004.org.

10th International Congress on Mathematical Education 4-7 July 2004, Copenhagen Denmark

Deadlines:

Early Registration: before February 28, 2004

Normal Registration: before May 31, 2004

Late Registration; after June 01, 2004

More information is available at the website:
www.ICME-10.dk

Search for the XXII EURO Summer Institute EURO IFORS Theme : *Optimization and Data Mining*

IFORS is pleased to announce its sponsorship of two participants to join the ESI 2004 to be held at the *Middle East Technical University (METU)* in Ankara, Turkey from July 9-25, 2004.

The **Euro Summer and Winter Institutes (ESWI)** are organized to encourage good social and working relationships among promising young OR scientists in Europe. It aims to encourage the establishment of a network of promising young researchers who will continue to work in the future. Each run is composed of 25 participants. The Institute features lectures by invited speakers, but for the most part, the participants themselves will present and discuss their papers. A special issue of *European Journal of Operational Research (EJOR)* will be prepared, based on the papers presented during the ESI. Just as important is the varied social program that is prepared for the participants.

Traditionally, national societies submit their candidates from which the final participants are selected. EURO covers the costs of the scientific program, accommodation, meals, and social activities, while the participants, with the help of their national societies, cover travel expenses.

For 2004, IFORS will sponsor travel expenses of two candidates, one of whom must come from a developing country. EURO will extend the same sponsorship to these two scholars.

Theme of the XXII Euro ESI

From the computer revolution emerged new theoretical and computational challenges to such

areas as web page clustering, computer vision, financial mathematics, bioinformatics, and others. The perceptron algorithm, support vector machines, margin classifiers, k -means clustering, EM -algorithm, are some terminologies encountered in classification, clustering and machine learning problems. Optimization algorithms and techniques are often at the heart of such methodologies.

The scientific aim of this Summer Institute is to advance the research on: solving data mining problems through the use and development of modern mathematical optimization and statistical tools; and on new optimization methods and algorithms capable of handling very large scale data.

Contributions on continuous and discrete *optimization theory, statistical learning and applications* are also welcome.

If you:

1. Have done work along the lines of the ESI as given in the theme;

2. Are 25- 35 years old; and
3. Can present your unpublished work and answer questions in English, you may be the person we are looking for.

Please submit your curriculum vitae and a two-page abstract of the work you have done by February 15, 2004 to:

Elise del Rosario

Developing Countries Committee Chairperson

e.delrosario@jgdelrosario.com

Telefax No. (632) 634 49 96 or (632) 637 00 36

Mailing Address: Operations Research Society
of the Philippines

Suite 2810 Jollibee Plaza

Emerald Avenue, Ortigas Center

Pasig City 1600 Philippines

Submissions through e-mail are acceptable.

Upon passing the final screening, candidates will be asked to submit full papers by March 30, 2004. The selected IFORS-ESI Scholar will be notified by May 15.

Puzzle Corner

(Answers are to be found elsewhere in this issue.)

1. Bottled Money

How can the ORSNZ Treasurer accomplish the following feat?

- Take a \$5 note and put it in a bottle that has a cork to fit.
- Cork the bottle snugly.
- Remove the note intact without pulling out the cork or breaking the bottle.

2. Timing the Chimes

The ORSNZ Secretary timed the nearby university chiming clock at six o'clock and found that it took exactly 21 seconds to complete the six strokes, with each stroke itself lasting one second. How long will the clock take to strike midnight?

3. Beer Cans in a Basket

One of the ORSNZ Branch Chairs was trading a beer can to each of five willing students for ORSNZ membership sign-up. Fortunately, the Chair had a basket with exactly five cans of beer. How can the Chair distribute the beer and still have one can remaining in the basket?

Source (with modifications): Wilkins, *Diversions: Exercises for Mental Athletes*, Methuen, Auckland, 1982.

NEWS FROM WAIKATO

Department of Management Systems ship held steady by Captain Scott

It has been relatively smooth sailing in the Systems Department during B-semester. This is most likely due to hard work rather than good luck, given that the Department is in effect three staff down this semester. While John Scott has been meticulously planning, budgeting, and strategising for the coming year, his predecessors have been clocking up the kilometers. Eric Deakins has arrived in the UK after spending a few days on monsoon alert in Hong Kong. At last report Eric thought the monsoon might have followed him! Jim Corner has been travelling at a slightly more leisurely pace (foot and canoe) while taking some annual leave near Yellowstone National Park. He reports that he has caught several lake trout in the 18-22 inch range. We are awaiting photographic evidence of this so, in the meantime, this information should be considered to be only of typical fishing story quality.

Introducing Dr Valerie Martin

Valerie Martin recently joined the systems department. Here is a quick summary of her background and areas of expertise. Valerie began her career as a musician, gaining degrees in music and performing and teaching in South Africa, Italy and Spain and the UK. She then returned to the UK where she gained an MSc and a Ph.D in Information Management.

Valerie has gained substantial research and practical experience working with a variety of companies in the UK, including manufacturing and financial services, and has spent several years running learning clusters for small companies. She was employed as a research fellow at Brunel University in London before taking up the lecturing post at the Waikato Management School.

Her main research interests are: information and organisational culture; the business/IT gap; knowledge management; small to medium enterprises and supply chain management.

Systems Golfing Prowess Demonstrated Again

A little known fact is that many in systems are highly skilled golfers. These skills were demonstrated recently when a number of the semi-professionals headed out to Park International Country Club. Playing the alternative "highest score wins" scoring approach there was some extremely close (and high) scoring with several players in contention at the final hole. Only John Scott, struggled to come to terms with this scoring approach. One of the most memorable shots came from John who managed to recover from hitting his tee shot onto the wrong green by hitting a beautiful 3-wood off the putting surface to end up back in the correct fairway.

Corporate Challenge

While on the topic of sporting achievements, some of the department (along with a few grad. students and co-opted members) have participated in a couple of the recreation centres corporate challenge events this year. Our best achievement was a close (but disappointing) second at the recent Expedition Urban Adventure. With a combination of fitness and cunning we were able to easily win the first part of the challenge. However we were foiled at the last hurdle and as a result missed out on the top prize. Competitors, look out next year!!

FRED BAIRD MAKES THE COVER!

For those of you who missed the November issue of New Zealand House and Garden magazine, Fred Baird's spectacular Parnell home (built on the last available site) was featured on the cover and in a large article inside. So we have positive proof that **not** finishing a PhD is one of the keys to financial success! Also, anyone who checked closely the titles in the photo of Fred's library would have smiled at the array of well-thumbed 1970/80's OR textbooks displayed there, so now we know where they go to die. So, well done, Fred, wherever you are! (But was the magazine spread item really a cunning way of advertizing a property that may soon be for sale??) Ed.

Lecturer/Senior Lecturer in Operations Research

School of Mathematical and Computing Sciences

Applications are invited for this position. The appointee should be a dynamic person with the ability and desire to undertake research and teach enthusiastically and responsively. Applicants should have a teaching and research record in any area of optimisation, such as mathematical programming, scheduling, network optimisation, simulation or multi-criteria optimisation. The appointee will be expected to undertake research, and to be committed to excellent and innovative teaching and research supervision.

Consideration of applications begins 20 January 2004.

Please quote ref SA0382M.

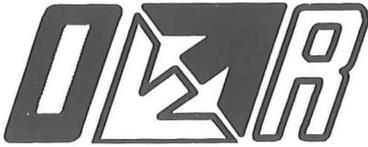
Information about the School is available from www.mcs.vuw.ac.nz For further information about the School and position, contact the Head of School, Dr Peter Donelan at peter.donelan@mcs.vuw.ac.nz

An application pack is available from the HR Officer, Faculties of Science, Architecture and Design, tel: 0-4-463 5100 or email: Science-appoint@vuw.ac.nz

Victoria University of Wellington is an EEO employer and actively seeks to meet its obligations under the Treaty of Waitangi.



The 2003 Conference Mob



ANNUAL REPORT 2003

Membership

The current membership of the ORSNZ is as follows:

	2002	2003
Corporate Members	4	5
Corporate Sponsors	2	3
Life Members	2	2
Corporate Representatives	7	7
Standard Members	89	94
Overseas Members	14	14
Members (no branch)	13	13
Retired Members	4	4
Student Members	57	51
Total Membership	192	193

Membership stayed close to the same level as last year in all categories, and standard membership numbers rose slightly. It is hoped that enhanced publicity will increase membership even further.

Finances

The Statement of Accounts, and Honorary Auditor's Report was be tabled at the 2003 AGM and appears elsewhere in this issue.

Conferences

The 37th Annual Conference of ORSNZ was held in Auckland on 29 and 30 November 2002. The Council would like to thank the Organizing Committee, including: Matthias Ehr Gott (Chair), Andrew Mason, Michael O'Sullivan, Andy Philpott, Cameron Walker, and Golbon Zakeri for their splendid work in making it such a success. The 38th was held in Hamilton, during 20 – 22 November, 2003.

The Branches (Wellington Branch Report attached)

Branch activities are vital to the Society. Judging from the mix of meetings and visitors of the Branches this year, it is clear that OR is doing well in New Zealand. ORSNZ is pleased to continue to support Branch activities financially. The Council wishes to thank the Branch Chairs: Andy Philpott, David Boland, and Shane Dye, for their ongoing work, and also those Branch members who have supported them.

Newsletter (Editor's Report attached)

The Council is grateful to John Giffin as Editor in producing the Newsletter. It is also gratifying that there has been a sustained level of interesting contributions.

Liaison (Officer's Report attached)

This important role, which has been formalized, has been ably carried out by Vicky Mabin.

Meetings

Council meeting was held on 1 August, 2003 in Hamilton. At the meeting, a revision of the IFORS statutes, the ORSNZ Hans Daellenbach Prize, the ORSNZ '03 conference budget, a change of venue for the Annual Conference in 2004, the visit of Saul Gass, and the YPP were discussed.

The AGM was held in Hamilton, on 21 November, 2003, during the Annual Conference. A Council Meeting will be held immediately after the AGM. The minutes of both meetings appear elsewhere in this issue.

The ORSNZ Hans Daellenbach Prize

The ORSNZ Hans Daellenbach Prize for 2003 has been awarded to Les Foulds of the University of Waikato. The Prize was awarded at both the RSNZ Awards Night in Auckland, on 13 November, and at ORSNZ'03 in Hamilton, on 21 November.

Relations with the Royal Society of New Zealand

ORSNZ has been represented at certain RSNZ meetings in Wellington by John Davies and Vicky Mabin. Also, Andy Philpott in his capacity as Chair of the RSNZ Standing Committee on Mathematical and Information Sciences has represented the views of ORSNZ to the RSNZ. The Council thanks them for their efforts.

Visiting Lecturers

During the financial year 2002-2003, the two visiting lecturers were Wang Hsiao-Fan and Mike Pidd. The Council would like to thank Fritz Raffensperger and Vicky Mabin, respectively, for coordinating their visits. During the financial year 2003-2004, the two visiting lecturers were to be Saul Gass, and Russell

Cheng, whose visits were to be coordinated by David Ryan and Les Foulds, respectively. Unfortunately, for personal reasons, the lectureship of Russell Cheng had to be cancelled.

Thanks

I would like to thank all members, especially those on the Council, for their patience and support during the past 12 months.

Les Foulds

President

ORSNZ

23 October, 2003

Liaison Officer's Report 2003

1. Reviewed Proposed changes to IFORS Statutes and relayed Council's vote to the IFORS Secretariat
2. Liaison with IFORS and other international OR bodies
3. Scanning items from overseas for local interest and forwarding to the newsletter editor for inclusion
4. Publicity for ORSNZ Conference 2003

Vicky Mabin

15.09.2003

Wellington Branch Report 2003

2003 is proving to be another interesting, useful and sometimes amusing year for the Wellington Branch. We are very pleased that John R Hayes has joined the team and is making a useful contribution to the committee. I am relieved that both Vicky Mabin and John Davies have agreed to stay on the committee for another year. As usual Vicky does the work and arranges the seminars.

We started our programme in March this year with a presentation by Mike Wright, who is a Senior Lecturer in the Management Science Department at Lancaster University, UK, and has been on sabbatical based at the University of Canterbury in New Zealand. His main research interests are the development and application of meta-heuristic techniques for large complex real-life combinatorial problems with many objectives, & the application of OR to sport, with regard to scheduling and to the analysis of tactics. These interests have been combined in Mike's work on cricket scheduling which he has been undertaking for many years, mainly for the England and Wales Cricket Board but more recently also for New Zealand Cricket, basketball and a local league in England. Mike's other work over the last few years has included school timetabling and the modelling of football (soccer) matches, as well as the development of new forms of the meta-heuristic technique. His presentation was on the 'The Professional Foul in Association Football - Tactics and Deterrents' The model he developed data from every 1999-2000 English Premiership match is calibrated to determine the circumstances under which a player "should" commit a professional foul in order to benefit his team. The results are illustrated using two hypothetical matches, one between evenly-balanced teams and one where one of the teams is much stronger than the other. These circumstances turn out to be wide-ranging and, in some cases, somewhat counterintuitive. The many drawbacks of the current system for punishing such fouls are discussed and a simple remedy is proposed which would not only be much fairer to all involved but would also at a stroke render the professional foul virtually obsolete.

We followed Mike Wright by another University of Lancaster man, Professor Mike Pidd, the ORSNZ Visiting Lecturer for 2003 who made two presentations to the Wellington Branch. Mike Pidd was based at the beginning of 2003 at the Victoria Management School. He is Professor of Management Science in the Management School at Lancaster University in the UK. He has served as Head of the Department of Management Science (formerly known as the OR Department) and is on sabbatical leave from his current role as Research Dean in the 5 star rated Management School. In 2000/2001 he was President of the Operational Research Society and was a member of the Business and Management Panel for the UK's 2001 Research Assessment Exercise. His research interests include computer simulation methods, procedural decision support and OR in public policy. He is well-known for two books: 'Computer Simulation in Management Science' (now in its 4th Ed) and 'Tools for Thinking: modelling in management science' (2nd Ed just published). He believes that the most interesting things in OR/MS and in other management subjects take place on the boundary between theory and practice. His first seminar was on 'OR/MS in Strategy and Public Policy' He told us how Operational Research and Management Science (OR/MS) are generally accepted as valuable approaches to tackling many management and business problems. However, in many people's minds, OR/MS is suited only to tackling operational problems in logistical systems. Drawing on experience in working with public policy makers in the UK and in teaching Strategic Analysis and Modelling to MBA students, this seminar explored the possible and actual roles for OR/MS in developing successful strategy and public policy. It provoked much lively discussion, as was intended. Professor Pidd's second presentation was entitled 'A Taxing Problem: Hard and Soft OR Case Study' Soft OR is now recognised as a valid approach especially when tackling ill-structured problems. That soft OR may be combined in practice with more conventional hard approaches is not in doubt, yet there are few case studies illustrating how this may be done. Recently, the UK Inland Revenue undertook a strategic review of the UK's personal tax system. A team composed of Inland Revenue staff, Lancaster University staff and external consultants undertook this review using a combination of hard and soft approaches. The seminar described the work done and will highlight the complementarity between the hard and soft approaches.

In April the Operational Research Society linked up with the School of Mathematical and Computing Sciences for a joint seminar by Professor Hsiao-Fan Wang, also an ORSNZ Visiting Lecturer. Professor Wang's presentation was on the 'Descriptive Web Mining with Multi criteria Fuzzy Clustering' Professor Hsiao-Fan Wang has been teaching at the Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Taiwan, ROC after she graduated from Cambridge University, UK in 1981. She has been the Head of the Department, the President of Chinese Fuzzy Systems Association and the Vice President of International Fuzzy Systems Association, and now on her sabbatical leave at University of Canterbury. She is the member of INFORMS, CFSA, CIIE, New York Academy of Science and Erskine Society. Her research interests are on Fuzzy Set Theories and Applications, Multi-Criteria Decision Analysis and Data Mining. These interests have been combined in her recent project of web mining for Chung-Hua Telecom Company in Taiwan. Her other work over the last few years included system development for supporting diagnosis, treatment and follow-up care decisions of a hospital and development of new techniques for by-order and by-demand production scheduling problems. In her presentation Professor Wang described the two types of consumer behaviour which can be observed: one is knowing what they want and then seeing whether it is available; and the other is to see what is available and then to decide what they want. Assumptions of either type of web-users affect the design of a query system for a website. This talk discussed why a service-oriented website based on the latter assumption is adequate and how to design it so that the users may realise quickly what they want from the 'right' information that the website provides.

Our July seminar was by Dr Jennifer George, who is Associate Dean of Students at Melbourne Business School. She joined Melbourne Business School in 1998 after completing a PhD in queuing theory at Stanford University. Her research lies at the intersection of economics and management science and her particular interests involve agency theory applied to operations models. Her presentation was on 'Incentive Compatibility in an Adjustable Service Rate Queue' She described how traditional payment methods such as piece rates or hourly wage rates often do not provide good incentives for working faster

in an environment where the timing of work matters rather than the throughput volume. This research uses a queuing model with adjustable service rate, that is, a queue where the server can speed up or slow down according to the number of jobs waiting, to find optimal ways to pay the server when their effort level cannot be directly observed. She concluded that the server should be paid primarily when they are idle.

Dr Tom Halliburton made the August presentation Dr Tom Halliburton completed a PhD in hydro-thermal power system optimization at the University of Canterbury in 1982, and spent 14 years with the Ministry of Energy Electricity Division, and then ECNZ mainly in the areas of model development and investment analysis. After leaving ECNZ he worked at the US Department of Energy in Washington, Pacific Gas and Electric Company in San Francisco, and at Enron in Houston. At Enron he held the position of Director of Commodity Risk Structuring for Enron International, and then as a Manager in the Corporate Research Group, before returning to New Zealand late in 2001. He now works as an independent consultant in power system modelling and analysis. His presentation was on 'Modelling Electricity System - Investment and Security of Supply' Dr Halliburton discussed the models which he said both warned of, and contributed to, the current electricity supply situation. Security of electricity supply predictions that have been published over the last year include those by Transpower, the Centre for Advanced Engineering, and the Ministry of Economic Development. Some key issues with these models are discussed. Earlier this year, Transpower recognized the need for better modelling of the New Zealand power system. A trial of the SDDP model was commissioned. SDDP is probably the most widely used stochastic hydro-thermal optimization model. It applies a sampling technique that allows the solution of a high dimension stochastic dynamic program. Good results have been obtained from the model, and a number of applications are being considered.

Further events are planned to round off the year including seminars by Professor Russell Cheng of the University of Southampton and Professor Saul Gass in November.

Our meetings have generally been held at the downtown campus of the Victoria School of Management which provides a convenient location for non-academic ORSNZ members and guests to attend lunchtime or evening sessions. As a result, these events have generally been well attended and provide a regular meeting and networking opportunity for both academic and non-academic members.

D Boland

Wellington Branch Chair

9.10.03

Newsletter Editor's Report 2003

I took over the Newsletter Editorship from Fritz Raffensperger after the printing of the December 2002 Issue. At that time I was not (and still am not) a member of ORSNZ, but I agreed to do so (despite my lack of word-processing prowess) on a 'test' basis for a year, as a favour to Les Foulds and to ORSNZ. I can't say that my time spent thus far has been a rewarding or happy one.

Two issues have been published this year, with the third under way as this report is compiled. As far as I can ascertain, two (paper-copy) issues per year would be easily sufficient to encapsulate the annual doings of ORSNZ. Additional conference updates and urgent information (or membership canvassing) could easily be achieved by email, or sourced by readers from elsewhere. Badgering is usually required to get any Branch New contributions (except from Wellington and Waikato), and only the Guest Editorials and

Puzzle Corners usually represent 'new' information. Keeping contributors to deadlines proves challenging and most often delays publication significantly. Maybe I am not being forceful enough about it?

For the size of the print run, contracting out the administrative and word-processing side would not represent efficient use of meagre resources, and yet it is a considerable burden to otherwise place upon already-stressed Departmental secretarial staff. As a result, I have ended up doing all the word-processing and everything else except the printing of address labels. The timings of the Newsletter issues also seem to invariably coincide with busy teaching or examination/marking periods. Assembling and editing material is one thing; desk-top publishing is quite another.

In summary, I suggest that an overhaul of the ORSNZ Newsletter form, frequency and production be seriously considered. Certainly a replacement Newsletter Editor will have to be found for 2004.

John Giffin

4.9.2003

MINUTES OF THE THIRTY-NINTH ANNUAL GENERAL MEETING OF THE OPERATIONAL RESEARCH SOCIETY OF NEW ZEALAND

Date: 21 November 2003

Time: 5:30 pm

Place: Room MSB1.01, Waikato Management School, University of Waikato, Hamilton

Attending:

Les Foulds (in the Chair), Chuda Basnet, John Buchanan, Paul Childerhouse, Stefanka Chukova, Stuart Dillon, Ross James, Alistair McNaughton, John Paynter, Andy Philpott, Grant Read, David Ryan

Apologies:

Kevin Broad, Bob Cavana, Jim Corner, Eric Deakins, Matthias Ehrgott, Yu Hayakawa, Vicky Mabin, Andrew Mason, Nicola Petty, Andrew Philpott

Proxies Received:

Leanne Arker, Shane Dye, Yu Hayakawa, Nicola Petty

Minuted by: Chuda Basnet

A. Minutes of 2002 AGM:

Les Foulds proposed that the minutes of the previous AGM (as sent out to all paid-up members) be accepted as true and correct. Carried unanimously.

B. Matters arising from the 2002 AGM:

None.

C. Annual Report

Les Foulds presented the Annual Report (published elsewhere in this issue) , covering the main activities and achievements of the Society in the past year. He acknowledged help received and work carried out by various members.

D. Treasurer's Report

The treasurer's report and the auditor's report for the 2002-2003 financial year were tabled at the meeting. The Treasurer, Paul Childerhouse, highlighted the deficit incurred in 2002-2003, which continued a trend from previous years.

A discussion of the treasurer's report ensued. Andy Philpott queried the rationale for the Society's database improvements. Les Foulds explained that the database was previously not user-friendly and had some bugs rendering it difficult to use, but the database improvement was successful and the problems were resolved. Paul Childerhouse felt that the year-end closing balance was about right, in keeping with the Society's not-for-profit status. David Ryan questioned the amount of money spent on Branch meetings. Les explained that AGM and Council resolutions had been passed earlier, giving Branches financial assistance for each meeting held.

E. Membership Fees

David Ryan proposed that the membership fee be increased, to \$60.00 for standard membership, and \$20.00 for student membership. Andy Philpott tabled an amended motion to increase the standard membership fee to \$70.00, keeping the student membership at the current level of \$15.00. This motion was seconded by Stefanka Chukova, and put to vote. The motion was carried unanimously.

F. Conference Venue

Les Foulds informed the meeting that the Department of Engineering Science at the University of Auckland had agreed to host the 2004 annual conference, in conjunction with the 9th Annual International Conference on Industrial Engineering Theory, Application, and Practice, on 28-30 November. David Ryan assured the members that the conference fee for ORSNZ members will be in line with past ORSNZ fees, and different from the fees paid by the industrial engineering participants. Social opportunities would be shared.

Les Foulds informed the meeting that tentative venues for future conferences were:

2005: Wellington

2006: Christchurch

2007: Auckland.

G. Election of Officers for 2004

The election of Society officers was chaired by Les Foulds. The following nominations were received.

Position	Nominee	Nominated by	Seconded by
President	David Ryan	Les Foulds	Grant Read
Vice President/ Web Master	Andrew Mason	David Ryan	John Buchanan
Treasurer	John Paynter	David Ryan	Andy Philpott
Secretary	#		
Liaison Officer	Vicky Mabin	Les Foulds	Paul Childerhouse
Council Members	Kevin Broad*	Les Foulds	Chuda Basnet
	Les Foulds	David Ryan	John Buchanan
	Jim Corner	Les Foulds	David Ryan
	Golbon Zakeri	David Ryan	Andy Philpott
	Alastair McNaughton	David Ryan	John Paynter
	Tom Halliburton*	Les Foulds	Grant Read
	Matthias Ehgott	Les Foulds	John Buchanan
	Nicola Petty	Les Foulds	Ross James
Auckland Branch Chair	Andy Philpott	Les Foulds	David Ryan
Wellington Branch Chair	David Boland	Les Foulds	Stefanka Chukova
Christchurch Branch Chair	Ross James	Les Foulds	Grant Read
Newsletter Editor	#		

To be decided at a later date by the incoming Council.

* Practitioner

The current auditor, Paul Rosse, was nominated for 2004 by Les Foulds, seconded by Chuda Basnet.

Les Foulds proposed that all nominees be elected to these positions. Carried unanimously.

H. Other Business

1. ORSNZ Proceedings format.

Les Foulds informed the attendees that, over the last few years, some 230 hard copies, each with some 300 A4 pages had been printed, at a cost of approximately \$4000.00. The cost of A5 printing was not much different, but costs could be saved substantially by using a CD ROM format instead of hard copy. Les proposed that the proceedings be distributed in CD format, with hard copies of abstracts given to the conference attendees.

Andy Philpott preferred hard copy. He reminded the meeting that the proceedings were a replacement for the APJOR journal previously received by all Society members, as a part of their subscription. He felt that it was important that the Society continued to provide hard copies to all of its members. Grant Read suggested that hard copies be made optional, at extra cost. John Buchanan preferred hard copies to CD's, as they were easier for conference attendees to refer to. David Ryan proposed that the matter be referred to the incoming Council.

2. ORSNZ Visiting Lecturers

Les Foulds informed the meeting regarding visiting lecturers:

July 2002 to June 2003: Hsiao-Fan Wang and Mike Pidd

July 2003 to June 2004: Saul Gass and Russell Cheng.

However the lecturership of Russell Cheng was cancelled for personal reasons.

3. The Young Practitioner Prize.

Les Foulds explained that some members had questioned the requirement of single authorship and the age limit for the YPP contest. After some discussion on this matter, it was proposed that the matter be referred to the incoming Council for resolution.

4. Thanks to Les Foulds.

Grant read proposed a vote of thanks to Les Foulds for his service as Society President over the last three years. Carried with acclamation.

The meeting closed at 7:00 PM.



MINUTES OF ORSNZ COUNCIL MEETING

Date: 21 November 2003

Time: 7:05 PM

Place: Room MSB1.01, Waikato Management School, University of Waikato, Hamilton

Attending:

Les Foulds (in the Chair), Chuda Basnet, John Buchanan, Alastair McNaughton, Ross James, David Ryan, Stuart Dillon, Paul Childerhouse

Apologies:

Jim Corner, Eric Deakins, Matthias Ehrgott, Vicky Mabin, Andrew Mason, Nicola Petty, Andy Philpott

I. Minutes of the Council Meeting on 1 August 2003:

Les Foulds proposed that the minutes of the Council Meeting on 1 August 2003 (as sent out to all Council members) be accepted as true and correct.

Carried unanimously.

J. Matters arising from the Minutes of the Council Meeting on 1 August 2003:

None.

C. General Business

None.

The meeting closed at 7:10 PM.

Conference Expenses			
Website fees	421.87	430.00	
2001 Conference	1,926.45		
2002 Conference	14,752.77		
2003 Conference		20,303.00	
	17,101.09		20,733.00
Education			
Visiting Lecturers	2,000.00	1,900.00	
Dallenbach Prize		1,000.00	
YPP Prizes	1,000.00		
Student Travel Grants			
	3,000.00		2,900.00
Society Memberships			
IFORS Subscription		837.00	
Royal Society of New Zealand	309.38	310.00	
	309.38		1,147.00
Newsletter			
Postage	1,042.08	1,100.00	
Packing and Administration	263.62	270.00	
Printing and Design			
	1,305.70		1,370.00
Secretarial			
Assistance for the Treasurer & Conference	120.00		
Statement of Accounts & Auditor's Report	60.00	60.00	
PO Box Rental/Redirection	205.00	205.00	
Postage, Packing & Stationary	60.00	60.00	
	445.00		325.00
Treasury			
Bank Charges (not VISA)	37.50	40.00	
VISA	253.79	300.00	
	291.29		340.00
Miscellaneous			
Database Improvement	4,500.00		
Publicity Consulting	500.00		
Miscellaneous	65.00	70.00	
	5,065.00		70.00
Total Payments	29,611.79		27,655.00

- Notes:**
- 1 The conference is expected to be very close to breaking even.
 - 2 Above figures include GST whenever GST applies.
 - 3,4 Membership fees have stayed at their present levels (\$50: regular, \$15: student) since 1996. Perhaps an increase is warranted.
At present there is a total of 196 standard, overseas, & no branch members. Thus every increase of \$10 in membership fees would produce approx \$2000 in revenue.
 - 5 The trend of continuing deficits is of concern.
 - 6 Meetings budgeted at the cost of \$125 +GST per meeting.
 - 7 To Saul Gass: \$1000 VL, + \$900 for helping with OR at AU, VUW, & UC.
 - 8 Sponsored and included in (1) above
 - 9 For the period 2000-2004.
 - 10 Included in (1) above.

Report to the members of the Operational Research Society of New Zealand

The Operational Research Society Of New Zealand is responsible for the preparation of the attached receipts and payments statement.

I have examined the accounting records of the Operational Research Society of New Zealand. This included agreeing opening and closing bank balances to bank statements and a review of receipts and payments recorded. The total amount of deposits as per the bank statements exceeded the amounts recorded as receipts in the accounting records by \$245.80. This has been shown in the receipts and payments statement above under the classification of Other. Subject to this, the above Statement of Receipts and Payments for the year 1/7/02 - 30/6/03 is in agreement with the accounting records which, from my review, have been properly kept.

Control over income and expenditure prior to its being recorded is limited, and there can be no practical audit procedures to determine the effects of this limited control.

Based upon my review, and subject to the limitations mentioned above, nothing has come to my attention that indicated that any of the information disclosed is incorrect.

Paul Rouse PhD CA
Hon Auditor
19-Nov-03





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