CONTENTS

2 Editorial
2 Letters
5 President’s Message
7 Board News
14 Annual Reports
24 Ergonomics International
27 Branch News
31 New Members
32 Electronic Resources
33 Conference Calendar
34 Information for Contributors
35 Instructions for Advertisers
36 1999 Membership Directory

The Official Journal of the Ergonomics Society of Australia Inc.
Volume 12, Number 6 edition, ISSN 1033-1875

Editor: Robin Burgess-Limerick
Design and Layout: Perception Communications tel: 03 9593 9993
Printer: The Jamison Printer tel: 06 253 1222
The Ergonomics Society of Australia Inc.
Canberra Business Centre
Bradfield Street, Downer ACT 2602
tel: 02 6242 1951 fax: 02 6241 2554
e-mail: esa@ozemail.com.au

ESA MISSION STATEMENT
Promoting systems, spaces and designs for People
Editorial

Welcome to the final issue of Ergonomics Australia for 1998. Barring unexpected delays, this should reach you before Christmas, so let me take this opportunity to wish all readers peace and joy. My thanks for the kind feedback on the journal I have received, and even more thanks to those who have contributed to this year's issues. A final word of thanks to Margot Lynch and Ian Mitchell whose professionalism and organisation I have very much appreciated.

I have provided a report for the AGM, which is published in this issue along with other annual reports. As mentioned in that report, it is my intention to step down from the editorship of the journal at the end of 1999. I hope that this early notice will enable the board to identify a successor early in 1999 and allow a smooth transition to be effected. I invite members to consider whether they would be prepared to offer their services in this capacity, and if so, to contact the Board.

Best wishes,
Robin Burgess-Limerick

Letters

Dear Members

As some of you may know I am resigning just prior to Christmas from working for the Ergonomics Society of Australia - indeed I am about to retire from the workforce. I have enjoyed the 7 years I have spent in the Federal Secretariat office and have had occasion to write or speak with a fair proportion of you in that time. I have seen the Society grow more professional over the years and the stable office, staff and address has helped achieve this.

Whilst I don’t really want to single people out, those I have had most contact with on a regular basis have been, of course, the members of the past four Executives, Jeff Frith, Bill Green, John Morris, Barbara McPhee, Christine Aickin, Maurice Oxenburgh, Verna Blewett, Malcolm Dispain, Valerie O’Keeffe, Ian Gibson, Jenni Miller and Rod Powell, the Directors and the PAB Board. All took their responsibilities capably and I enjoyed working with them. Whilst I have so far not had as much to do with the new Executive I am sure that David Caple, Tony Payne and Ros Kushinsky will continue on the good work of the previous Executives. Someone else that I talk to regularly is Robin Burgess-Limerick, the Editor of this Journal. I have hardly had to nag him about getting the Journal out on time, however as Bill Green once wrote to me prior to his departure for overseas, “... no one else has ever nagged me as sweetly and effectively as you”, so Robin you don’t know what you’ve missed! I should also not let the occasion go by without mentioning Ian Mitchell. Ian and I have worked together, albeit only half a day a week, for the last four years and it has been a pleasure to work with such a pleasant, kind and considerate gentleman and I wish him well when he finishes up with ESA at the end of February.

I know I will miss working in the first instance, but travel is on the horizon. I am now entering another phase in my life and if what my other retired friends tell me I shall soon wonder how I found time to go to work!

I wish all members a Happy Christmas and all the best for 1999.

Au revoir.

Margot Lynch
Administrative Secretary
1 December 1998
NZ CONFERENCE INVITATION

The conference organising committee of the New Zealand Ergonomics Society extends you a warm invitation to attend their 9th conference "Ergonomics @ Work" which will be held over two days, 25 and 26 November 1999 at The George, Christchurch, New Zealand. Verna Blewett will be presenting on the "Role of the ergonomist in organisations in transition" and Bob Feeley from Loughborough will also be presenting. The conference theme is to emphasise the applied side of ergonomics and topics may include design, forestry, organisational design, aviation, rehabilitation, architecture, transportation, health and safety, manual handling and macroergonomics. ESA members will be eligible for NZES member rates if they attend.

If you wish to present a paper or receive further information, please contact the organising committee - PO Box 2715, Christchurch, New Zealand, email: nzescon99@clear.net.nz. Please note last date for receipt of abstracts is 29 January 1999.

If you need further convincing refer to Verna Blewett’s report on the last New Zealand conference "Ergonomics, geysers and mudpools" in the August 1998 ESA newsletter “All the Kiwis I met were wonderfully welcoming and warm and I can strongly recommend time in that lovely place. If you need and excuse of a conference to take you there, then you couldn’t go past an NZES meeting for high quality content, great networking and a solid social programme."

Regards,

Sue Alexander
Chair Organising Committee

AN "ABOUT FACE" OR THE "BACK TO FRONT" PROBLEM

The problems faced by the minority Group of left-handed persons is growing. This is not because there are necessarily more problems but in enlightened times junior citizens now receive little discouragement from using their left hands which apparently results in a greater percentage of the population favouring to be sinistral. [This word partially explains an age-old issue.]

I note in at least one "Medical" Journal an article claiming to show statistics that left-handers have a shorter life-expectancy [than right-handers - who else??]. Furthermore, many not realise the endless difficulties the institutions of various types unwittingly inflict on left-handers. Simple examples may be found at banks. Thick cheque-books are one example and the position of thief-proof pens on counters are another.

Left-handed sport-persons may in some ways have some advantages. In fact is left-handed really left-handed? [I will point that I have seen little research on the following suggestion].

If one swings a bat or club in an "easy" manner as many experts advise, the "Lower" hand is used mainly as a guide and the leading hand should be the stronger hand? Or should it? A thought to ponder on is "How many good Aussie Bowlers who were/are powerful hitters of the ball batted the "other" way around with their "strong-arm" being the leading arm. I would presume that the same premise applies to baseball etc with the statistics likely to grow. Perhaps someone who has access to more detailed information may be able to show this to be an emerging trend or otherwise.

The main thrust of this dissertation should however be safety and not minor irritations although I hope a point has been made. A picture can be worth a thousand words, takes the same space and 20% of the time to comprehend. So in brief and to refer to the photos, there is an interesting problem.

Portable power tools can be a real problem to the unaware. The efficiency of some of these continuous-run mode buttons is now such that it is becoming difficult with some models when being held by the
"pistol" grip in the left hand not to inadvertently depress this button. The issue is accentuated because in many models this occurs when the motor is at maximum speed. Thus, should the drill bit or accessory "jam" the release of the power trigger can take too long.

Thus, please consider the following scenario. A circular hole is being cut in a piece of wood using a cylinder shaped saw blade as a "drill" attachment. The wood is anchored in a bench vice and blade jams when an inexperienced person has unwittingly depressed the continuous run button. The power of small such tools is such that the tool may be "thrown" across the room. Other portable power-tools can have related issues. Food for thought?

Have a nice day. Cheers, Jon Amies MSIA

Greetings. It is a great honour to offer my first greetings as the President of ESA. My most important task, through Ergonomics Australia, is to sincerely thank the outgoing Executive and Board members of ESA. Ian Gibson as President, Jenni Miller, General Secretary and Rod Miller, Hon. Treasurer have served the members with great commitment and energy for the last two years. I look forward to Ian’s mentorship for the next year as Past President.

Now for the new team for 1998-2000. The Executive is :-

President - David Caple
General Secretary - Tony Payne
Hon. Treasurer - Ros Kushinsky

We have a new team of Board Members, recently elected by each State. They are:-

<table>
<thead>
<tr>
<th>State</th>
<th>Board Member</th>
<th>Alternate</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>Christine Aickin</td>
<td>To be confirmed</td>
</tr>
<tr>
<td>QLD</td>
<td>Justin O’Sullivan</td>
<td>Roxanne Egeskov</td>
</tr>
<tr>
<td>SA</td>
<td>Tim Upstall</td>
<td>Caroline Dingle</td>
</tr>
<tr>
<td>WA</td>
<td>Annabel Cooper</td>
<td>Ian Gibson</td>
</tr>
<tr>
<td>ACT</td>
<td>Mike McCracken</td>
<td>Kerry Plunkett</td>
</tr>
<tr>
<td>Vic</td>
<td>To be confirmed</td>
<td>To be confirmed</td>
</tr>
<tr>
<td>PAB</td>
<td>Bob Stacy</td>
<td>To be confirmed</td>
</tr>
<tr>
<td>Past President</td>
<td>Ian Gibson</td>
<td></td>
</tr>
</tbody>
</table>

During the October Board meeting, a number of important decisions were made for the next two years. These included:-

The Board will focus on four primary issues:-
1. Membership
2. Professional Development
3. Promotion
4. Finance

We are currently encouraging feedback from members on specific strategies under each goal. Details of the 1999 strategies will be published in Ergonomics Australia early in the New Year. Feel free to email me with your comments.
In early 1999, we will see the retirement of Ian Mitchell, our Executive Officer for the last 5 years, and Margot Lynch, our Administrative Officer in Canberra for the last 7.5 years. Ian was brought aboard to help straighten out the management of ESA to ensure our processes and structures were appropriate for "not for profit organisations" – an area he has consulted in for many years. His guidance to previous Boards has been highly respected in a wide range of areas for which we owe him many thanks.

Margot has been the "face" of ESA to new members, past and current, as well as the public enquiring about ergonomics. In her little office in Canberra, she has organised the affairs of the ESA federally as well as assisted various State Branches and Special Interest Groups with their needs.

To Margot and Ian we say thank you and good health in your retirement.

It has been decided that, for the time being, we will not re-appoint an Executive officer, but contract specific professional expertise as and when we require it.

FINANCES
It was agreed that:-
1. Each Branch will be paid capitation immediately for 1997/98 programs.
2. From 1st July 1999, all funds held by the Society will be consolidated.
3. Each Branch and SIG will be requested to plan their 1999/2000 program and budget prior to 1/7/99.
4. Consultation will occur between the Board and each Branch and SIG re their program with the goal of encouraging innovation to meet the four goals specified.
5. A "float" will then be allocated to each Branch or SIG for them to facilitate their needs.

This system will enable greater accountability by the Board for their legal responsibilities in ESA but hopefully encourage Branches and SIGs to remain the focus for interaction and programs for members.

Competencies
The 35 members who stayed behind at ESA 98' for this excellent workshop, hosted by Neil Adams, learnt much about the IEA activities in this area by our Australian delegate Prof. Margaret Bullock. The subsequent discussions indicated this to remain as a high priority issue for ESA to continue to debate. Look out for some challenging questions on this issue early in 1999. Congratulations to Jim Carmichael (Qld) who was awarded the 1997/98 President's Medal at the AGM for his excellent contribution to date on the competencies project.

ESA 98'
The 190 delegates will testify that the 1998 ESA Conference was one of the best both technically and socially. The workshop format provided many likely interchanges, with innovative use of computer based learning, short "soap box" poster sessions and lively panel debates. The keynote speaker Dr Barbara Silverstein from SHARP, Washington State was an inspiration. The Bush Dance was an absolute winner.

As Convenor, I would like to thank the Victorian Committee for their tremendous work in planning and hosting this year’s conference. May ESA 99’ in Fremantle be as successful!

BRANCH VISITS
To facilitate consultation between the Board and Branch committees I am endeavouring to obtain work projects in each Australian state so I can meet with members. During October I met with the ACT team in Canberra and the NSW team in Sydney. I hope to meet with the SA team in Adelaide and the new Vic. team in Melbourne before the end of 1998. I have been very impressed with the tremendous vitality and great ideas being developed by the Branches. The co-operation between ESA and related professional associations, Government Depts., Universities, employer associations, and union, indicates that integration of ergonomics into wider fields is a desire of these Branches to meet the needs of their members. The development of the strategies developed by the Board through the Branch programs, will now become one of our joint challenges early in 1999.
I look forward to the opportunities that 1999 now offer. Let us join together and make it happen!

David C Caple
President
ESA

YOUR BOARD AT WORK
At its face-to-face meeting over the weekend preceding the Annual Conference, the Board managed to contract considerable business. The main items of interest to members included:

Business Plan Workshop:
Andrea Shaw conducted a Business Plan workshop on Sunday morning. It was agreed that the focus of the Society in the next few years would be on -

- membership
- professional development
- promotion
- finance

System of Course Accreditation:
As the basis for a possible regime for the ESA, it was agreed that David Caple would coordinate liaison with institutions at the forefront of ergonomics education. He would be assisted by Directors who will speak to those in ergonomics education in their states: Ian Gibson (WA), Christine Aickin (NSW), Justin O’Sullivan & Roxanne Egeskov (Qld), Kerry Plunkett (ACT), Tim Upsdell (SA) and Margaret Juhaz (Vic.)

The first action is for Directors to identify where ergonomics is taught, and get a list of institutions, and the types of courses offered, together with a list of the contact people in each institution.

Can you help? Get in touch with your Branch Director.

Internet Linking:
1. the Society will buy the name ergonomics.org.au
2. Airdrie Long was thanked by the Board for preparing the paper on the costs of a home page
3. Mark Dohrmann is to be asked to continue maintaining the home page for up to 1 year, liaising with Leon Straker and others
4. Mark, Airdrie, Leon and Gitte Lindgaard are to continue development of the home page.
Restructuring of the ESA Office:
Since both Margot Lynch and Ian Mitchell are leaving the employ of the Society, the opportunity was taken to review the office’s structure.

The ESA will not appoint a replacement Executive Officer but instead, would retain a consultant/s on a project basis as required.

After a review of the job description of the Administrative Secretary, the ESA would employ a secretary to work at the Canberra Business Centre part time on contract after Margot Lynch had retired.

1999 Conference, Western Australia:
(11-13 October 1999)
A brochure was produced for the ‘98 conference delegates. The ’99 conference will be run in conjunction with Cyberg’99 and have a ‘workshop’ format. The keynote speakers will be Arne Aaras and Kee Yong Lim.

Financial Situation:
It was agreed that:
1. Branch funds in excess of budget requirements will be transferred to the national office. This will be progressively implemented over the 1998-1999 financial year and attain full implementation from 1 July 1999 and fixed deposits will be transferred when they mature.
2. Branches will submit budgets for the 1999/2000 year to the Board by the end of June 1999 for allocation of funds.
3. Capitation fees for the ’97/98 year will be paid to the branches now.
4. The Board will continue consultation with the branches about the mechanics of implementing the financial strategy.

Structure & Role of the PAB:
Following feedback from the membership at large and CPE’s in particular, the Board intends to recommend changes to the Constitution that will lead to the dissolving of the committee of the PAB, and its replacement by a sub-committee of the Society’s Board to be elected from and by the members who have CPE status.

Publication:
The PAB has been examining ways of providing leadership to the Society while at the same time gaining additional income. It is to fund (or at least ‘seed fund’) a publication on how one can become an ergonomics consultant in private practice.

Honours & Awards Committee:
Ian Gibson, as Past-President, Roger Hall and Barbara McPhee were invited to serve as the Honours and Awards Committee for 1999.

Branch-Based Awards:
The Board agreed not to change the Guidelines which expect that Branch based awards would remain the province of the Branches.

It was agreed, however, that the Board and the Branches should explore sponsoring opportunities for awards or recognition of ergonomics. Branches were asked to consider the idea of sponsorships and to report back to the Board.

PPCOE
Support from ESA to the convening of a PPCOE Conference in Australia in 2004 was sought.

Recognition of Conference Proceedings:
The credibility of the conference proceedings for academics who put their work forward for recognition by DEETYA was discussed. The Board determined that the Conference Guidelines must be followed by each conference committee to ensure that papers included in the proceedings meet the requirement for recognition by DEETYA.

Standards Australia
It was agreed that the Board would look at ways that it could contribute to Standards Australia reviews, and identify ways of getting members to contribute to the technical information and to initiate reviews.

PAB ELECTION
In the recently conducted election for the Professional Affairs Board, those who are Certified Professional Ergonomists elected the following office-holders:
Chairperson: Robert (Bob) Stacy (Victoria)
Secretary: Marcia Lusted (NSW)
Board Members: Elizabeth Bunker (Queensland)
Ken Horrigan (Queensland)
Gerhard Hendricks (Victoria)

Congratulations to those elected and thanks are due to the previous PAB who added significantly to the professionalism of the Society.

Report from Michael Michaliades
ESA has continued to contribute in 1998 to the review work of Technical Committee SF/21 of the Standards Association Australia (SAA). The number of reviewed standards in 1998 was similar to that of 1997. Almost all of the publications reviewed were draft ergonomics documents (predominantly early ISO draft International Standards). Most of these reviews related to draft copies of various parts of ISO/DIS 9241 covering selected aspects of VDTs.

As with the review work in 1997, the extent of ESA feedback in 1998 has varied according to the technical contents of each draft standard under review.

M. Michaliades
ESA representative on SAA Technical Committee SF/21

MINUTES OF THE ANNUAL GENERAL MEETING OF THE ERGONOMICS SOCIETY OF AUSTRALIA INC
held at the Centra Hotel, Melbourne, on Monday 5 October 1998 commencing at 4.00 pm

1. WELCOME
The President welcomed members and declared the meeting open at 4.15 pm


1.2 Apologies
Lyn Barnett, Carol Cain, Lisa Delaney, Kerry Jones, Trish Kemp, Jim Knowles, Kirsty Knox, Gitte Lindgaard, Ian Milburn, Justin O’Sullivan, Lynne Rogers, Chiu Lan Teh, Tim Upsdell, Jenny Wilkinson.

1.3 Proxies registered:
3 proxies were correctly lodged: (Tony Payne for Kirsty Knox), Jenni Miller for Angela Summers, Phil Clark for Michael Michaliades.

2. CONFIRMATION OF THE MINUTES OF THE PREVIOUS MEETING
The Minutes of the previous AGM, held on 26 November 1997 on the Gold Coast, Queensland, as published earlier this year in Ergonomics.
Australia were confirmed on the motion of Jim Carmichael and Neil Adams.

3. ACCOUNTS
   3.1 Treasurer’s Report The Treasurer’s report was received and accepted on the motion of Rodney Powell and Verna Blewett.
   3.2 Auditor’s Report The Auditor’s Report was received and accepted on the motion of Rodney Powell and Christine Aickin.

4. OFFICE HOLDERS’ REPORTS
   4.1 President’s Report Ian Gibson’s President’s Report was presented and tabled
   4.2 The General Secretary’s Report was accepted and tabled on the motion of Jenni Miller and Bill Green.
   4.3 Journal Editor’s Report was tabled
   4.4 Professional Affairs Board Report was tabled by the Chairperson, Neil Adams
   4.5 Special Interest Groups
      4.5.1 CHISIG – Roger Hall tendered a verbal report
      4.5.2 SBESIG – no report presented
   4.6 IEA Report was presented and tabled by Margaret Bullock

5. ELECTION OF OFFICE-HOLDERS 1999-2000
   There being no other nominations, the office holders were duly confirmed, viz
   5.1 President - David Caple
   5.2 General Secretary - Tony Payne
   5.3 Treasurer - Ros Kushinsky
   In accepting nomination, David indicated that as part of his vision for the Society over the next 2 years, the Board would focus on 4 areas:
   Professional development
   Promotion of ergonomics
   Membership
   Finance

5.4 Auditor - On the motion of Rodney Powell and Maurice Oxenburg, it was resolved that Mr Arnold Harrington be reappointed Auditor for the coming year.

6. MEMBERSHIP
   6.1 Membership Criteria:
   On the recommendation of the Board and on the motion of Neil Adams and Annabel Cooper, it was proposed that the Membership Criteria be amended to include
   1. The criteria and benefits of both CPE and Member categories be changed to reflect increasing standards of entry as set out in the appended matrix;
   2. In the event of these changes being accepted, a clause be accepted to allow existing members to retain their current substantive rank, (providing they do not let their membership lapse);
   3. During the renewal notice period a member advising that she was taking a year’s leave from her employment on maternity leave may reduce her membership level and fee obligation to the same as for Affiliates for the full membership year and return to the full previous category of membership the following year without penalty;
   4. Members or CPEs who have taken time from employment to study full-time be permitted to avail themselves of the “student” fee provision without relinquishing their full status.
   Phil Clark and Jan McDonald proposed an amendment to item 1 that Affiliates be required to abide by the Code of Practice. The amendment was accepted by Neil Adams as part of the motion.
   The amended motion was carried by a show of hands.

7. CHANGES TO ARTICLES OF ASSOCIATION
   7.1 Membership Criteria:
   Depending on the outcome of the recommendations considered in Item 6.1, it was anticipated that the Constitution may need amendment as a result of changes made to the membership criteria.
   Since the decisions of Item 6.1 did not require changes to the Articles of Association, no motion on this item was necessary.
7.2 PAB Rules:
After publication with due notice, and on the recommendation of the Board, it was resolved on the motion of Neil Adams and Marcia Lusted that Article 7.2 of the Articles of Association be amended from -
"The composition of this (Professional Affairs) Board, its powers and the rules of its conduct shall be determined by the Society at a General Meeting."
to read that
"The composition of this Board, its powers and the rules of its conduct shall be determined by the Board from time to time."

8. GENERAL BUSINESS
8.1 Phil. Clark requested that:
1. all Society annual reports including financial reports be published in Ergonomics Australia for the information of all members, before the Society AGM.
2. The Society adopt a postal/electronic voting system for all Society general meetings.
3. Society general meetings are held at a convenient location (not necessarily related to the conference)
   David Caple, as incoming President undertook for the Board to consider these issues and no formal motion was put.
8.2 Mark Dohrmann moved and Phil Clark seconded that the Board pay 75% of its annual income to the Branches. The Motion was defeated on a show of hands.

9. NEXT MEETING:
The President announced that the 1999 AGM would be held in Fremantle, WA during the life of the 1999 annual conference.

The meeting closed at 5.45 pm
### MATRIX SUMMARY OF MEMBERSHIP CRITERIA

#### CPE

**Criteria**
- at least 5 years recent substantiated experience in the practice of ergonomics
- a certificated self-assessment
- supported by 2 referees
- at least 3 years continuous membership of ESA or an IEA affiliated society and currently a member
- demonstrated involvement in Society activity
- can demonstrate applicant is currently practising in ergonomics
- supports the Society and its Aim
- abides by the Code of Practice

**Benefits**
- CPE as post nominals
- "Ergonomics Australia" and Branch Newsletter
- vote at meetings (Branch, National & SIG)
- discounts on products and services
- discounted conference registration
- Society directory
- conference proceedings
- listed on register of people for referral of work
- able to hold office

#### MEMBER

**Criteria**
- approved tertiary qualifications in ergonomics as determined by the Board and one year’s pre- or post-qualification experience in ergonomics
- OR tertiary qualifications in a related discipline (as determined by the Society’s Board) and 2 years substantiated experience in ergonomics
- currently practising in ergonomics
- nominated and seconded by existing members
- supports the Society and its Aim
- abides by the Code of Practice

**Benefits**
- MESA as post-nominals
- "Ergonomics Australia" and Branch Newsletter
- vote at meetings (Branch, National & SIG)
- discounts on products and services
- discounted conference registration
- Society directory
- Conference Proceedings
- able to hold office
- Professional Indemnity Insurance available

#### AFFILIATE

**Criteria**
- retains an interest in ergonomics
- OR a member of a SIG who does not wish to become a member of the ESA
- OR a full-time student of ergonomics or of a related discipline
- OR a person who wishes to be associated with the Society but has insufficient qualifications and / or experience to become a member
- supports the Society and its Aim
- abides by the Code of Practice

**Benefits**
- no post-nominals
- "Ergonomics Australia" and Branch Newsletter
- no vote at meetings (Branch, National & SIG)
- discounts on products and services but at a lesser rate than for members
- discounted conference registration but at a lesser rate than for members
- may purchase Conference Proceedings
- unable to hold office
PRESIDENT'S ANNUAL REPORT

Policy-wise, the last year has been dominated by the completion and implementation of the recommendations of the Competencies Report. This is not surprising as it is probably the most important initiative taken by the Society in recent years. Obviously this is an on-going process as questions such as accreditation of courses, assessment regime, and criteria for certification still need further work but we must not forget its achievement; the Society owes much to Jim Carmichael and his team.

More visibly, the new logo is now settled and in use. Indeed, not only has the stationery and materials been printed but the Board has established Guidelines for its members to use the logo under certain conditions on their own stationery. This move will enhance the Society's profile and strengthen its ties with the network of members.

The Executive has maintained the determination of its predecessor to work more closely with CHISIG. ESA entered into an agreement during the year with the Executive of CHISIG for the ESA Secretariat to manage CHISIG's finances and to receive the membership renewals. The agreement will be reviewed in a few months time.

While the Treasurer (and the Auditor) will comment in more detail on the Society's financial situation, on behalf of the Executive I must add that we have spent a good deal of time trying to come up with a system that will best use the Society's moneys to the advantage of members. The Board will have further debated many of the crucial issues in detail over the previous weekend but it is important to emphasise that changes being considered are made only with benefits for the Society and its members in mind.

There are further changes to the Articles of Association before the AGM and while the outcomes are unknown until the members vote, it is important to add that these recommendations are the result of considerable work by members of the Executive, the Board and sometimes by committees.

Those of you who have been Certified Practising Ergonomists for over three years will have received the first of the Recertification papers. Although there will probably be some "bugs to iron out", the need for monitoring our most experienced ergonomists is not only an obligation required in the Constitution but represents one indicator of the Board's wanting to lift the standards of ergonomic performance in Australia.

In attempting to fulfil their responsibilities for the affairs of the Society, Directors have worked hard and voluntarily as they have taken some important decisions. Indeed I would like to comment on the sense of unity among the Directors as they strove to fulfil their responsibilities as Directors of the one unified society.

Internationally, we have been a voice. Margaret Bullock has represented us on the IEA Council as a very senior Councillor. Late last year I attended the SEAES conference in Malaysia and we have since maintained contact, including giving advice on its constitution.

Of course the routine work also continued such as making appointments to the OH&S Trust and to Standards Australia, contact with and work with Branches and committees within the Society and monitoring the staff.

I have enjoyed the office in the last two years and thank the members, the Executive, the Board and the Secretariat for their support not only throughout the year but over the two year term. I wish David Caple and the incoming Executive my good wishes for 1999 to 2000.

Ian Gibson
President
GENERAL SECRETARY’S ANNUAL REPORT

The year 1997-98 has concentrated on a number of important issues related to our drive for higher standards of professionalism in the Society - particularly in membership, competencies, and procedural guidelines.

We have tightened the standards of entry for new members. It is now more difficult to apply for full membership without both experience and qualifications. The criteria are being more rigidly applied and if more changes are made at this AGM, the standards will further increase. As a result the number of Affiliates has grown as a proportion of the total numbers.

Notwithstanding this trend, membership entry criteria continue to occupy the minds of the Executive members and of Board Directors. As we strive for greater professionalism within the Society and as the opportunities to undertake more studies in the discipline grows in external bodies, the issue will continue to be addressed by our successors. It is a balancing act to keep up the membership numbers while restricting easy applications.

The PAB has also continued the theme, as the PAB Chairperson will report, with the first recertification procedures being introduced. Becoming and staying as a Certified Professional Ergonomist is no longer a sop for time-servers.

The Board’s Directors have assiduously shouldered their responsibilities as Directors of the organisation. This Executive has built on the theme of the previous Executive in underlining the fact that we face increasingly legal as well as moral obligations as Directors of a registered organisation. No longer is the Society managed by a group of volunteers pursuing a series of personal agenda but a group of professional ergonomists managing the industry association professionally.

Conference participants at the Gold Coast will have noticed the display panels showing at the ESA Stand. This project for which we thank members of the Victorian Branch is one of several small steps taken to lift the public profile of the Society - and of the discipline. A number of members are also assisting us work on a world-wide-web site that will promote the Society.

During the year, we have oversighted the production of additional draft Guidelines, including those related to:

- professional enquiries and complaints procedures
- guidelines for the use of the new logo by members
- guidelines for Branch committees to hand over to successors

Work has also begun done on a new venture concerning our annual conference. From the year 2000, where it will be held in Adelaide, the Organising Committee will comprise people from several Branches and we expect assisted to a greater degree by the Secretariat. It will be a genuine national (interstate) organisation!

Finally, it was decided that printing the Membership Directory before changes in office-holders and to the Constitution was wasteful. From now on, therefore, we will print it early in the calendar year reflecting the decisions taken at the Annual Conference which is generally held towards the end of each year.

I would like to thank Ian Gibson and Rodney Powell for their support on the Executive. I’d also like to thank Ian Mitchell for his continuing support and advice over the past two years. It has been a pleasure to have served the Society in this way and I wish my successor all the best.

Jenni Miller
General Secretary
THE ERGONOMICS SOCIETY OF AUSTRALIA INC
STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 30 JUNE 1998

<table>
<thead>
<tr>
<th>1997</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
</tr>
<tr>
<td>53733</td>
<td>Subscriptions (Note 1b)</td>
</tr>
<tr>
<td>3540</td>
<td>Annual Conference Surplus (Note 4)</td>
</tr>
<tr>
<td>3033</td>
<td>Joining Fees &amp; PAB Application</td>
</tr>
<tr>
<td>10828</td>
<td>Interest received</td>
</tr>
<tr>
<td>10470</td>
<td>Income from Seminars, Courses</td>
</tr>
<tr>
<td>7897</td>
<td>Sale of Publications Advertising etc</td>
</tr>
<tr>
<td>6083</td>
<td>Income Special Interest Groups</td>
</tr>
<tr>
<td>1069</td>
<td>Royalties</td>
</tr>
<tr>
<td><strong>96653</strong></td>
<td><strong>TOTAL INCOME</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>LESS EXPENSES</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>54712</td>
<td>Secretariat</td>
</tr>
<tr>
<td>3750</td>
<td>Audit Fees</td>
</tr>
<tr>
<td>3807</td>
<td>Conference Proceedings</td>
</tr>
<tr>
<td>1002</td>
<td>Depreciation</td>
</tr>
<tr>
<td>600</td>
<td>Grants</td>
</tr>
<tr>
<td>2232</td>
<td>IEA Dues</td>
</tr>
<tr>
<td>16842</td>
<td>Publications &amp; Promotion Exp</td>
</tr>
<tr>
<td>500</td>
<td>Prizes</td>
</tr>
<tr>
<td>740</td>
<td>Projects - Competencies</td>
</tr>
<tr>
<td>7123</td>
<td>Expenses - Seminars, Courses</td>
</tr>
<tr>
<td>7221</td>
<td>Members Meeting Expenses</td>
</tr>
<tr>
<td>6713</td>
<td>Expenses - Special Interest Groups</td>
</tr>
<tr>
<td>14537</td>
<td>Travel &amp; Board Meeting Expenses</td>
</tr>
<tr>
<td>3423</td>
<td>Professional Affairs Board Expenses</td>
</tr>
<tr>
<td><strong>123202</strong></td>
<td><strong>SURPLUS OF EXPENDITURE OVER INCOME</strong></td>
</tr>
</tbody>
</table>

This statement is to be read in conjunction with the accompanying notes.
THE ERGONOMICS SOCIETY OF AUSTRALIA INC
BALANCE SHEET AS AT 30 JUNE 1998

<table>
<thead>
<tr>
<th>1997</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CURRENT ASSETS</strong></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>271</td>
</tr>
<tr>
<td>95081</td>
<td>112417</td>
</tr>
<tr>
<td>Receivables</td>
<td></td>
</tr>
<tr>
<td>142534</td>
<td>110815</td>
</tr>
<tr>
<td>1993</td>
<td>257</td>
</tr>
<tr>
<td>22428</td>
<td>21177</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT ASSETS</strong></td>
<td>244937</td>
</tr>
<tr>
<td><strong>NON-CURRENT ASSETS</strong></td>
<td></td>
</tr>
<tr>
<td>Investments</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Property Plan &amp; Equipment</td>
<td></td>
</tr>
<tr>
<td>8439</td>
<td>8439</td>
</tr>
<tr>
<td>6309</td>
<td>7311</td>
</tr>
<tr>
<td>2130</td>
<td>1128</td>
</tr>
<tr>
<td><strong>TOTAL - NON-CURRENT ASSETS</strong></td>
<td>1148</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>246085</td>
</tr>
<tr>
<td><strong>LESS LIABILITIES</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CURRENT LIABILITIES</strong></td>
<td></td>
</tr>
<tr>
<td>Creditors &amp; Borrowings</td>
<td></td>
</tr>
<tr>
<td>9428</td>
<td>10214</td>
</tr>
<tr>
<td>4600</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL CURRENT LIABILITIES</strong></td>
<td>10214</td>
</tr>
</tbody>
</table>

This statement is to be read in conjunction with the accompanying notes.
### The Ergonomics Society of Australia Inc

#### Balance Sheet As at 30 June 1998

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Current Liabilities</strong></td>
<td>14028</td>
<td>10214</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>250898</td>
<td>235871</td>
</tr>
<tr>
<td><strong>Net Assets</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This statement is to be read in conjunction with the accompanying notes.

---

### The Ergonomics Society of Australia Inc

#### Balance Sheet for the Year Ended 30 June 1998

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Members Funds</strong></td>
<td>277447</td>
<td>250898</td>
</tr>
<tr>
<td>Opening Balance</td>
<td>277447</td>
<td>250898</td>
</tr>
<tr>
<td><strong>Less</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Loss for Period</strong></td>
<td>26549</td>
<td>15027</td>
</tr>
<tr>
<td>26549</td>
<td>15027</td>
<td></td>
</tr>
<tr>
<td><strong>Funds</strong></td>
<td>250898</td>
<td>235871</td>
</tr>
</tbody>
</table>

This statement is to be read in conjunction with the accompanying notes.
NOTE 1 - STATEMENT OF ACCOUNTING POLICIES:
These financial statements are a special purpose financial report prepared in order to satisfy the financial reporting requirements of the Associations Incorporation Act (A.C.T.). The Council has determined that the Society is not a reporting entity.

The statements have been prepared in accordance with the requirements of the Associations Incorporation ACT (A.C.T.) and the following Australian Accounting Standards and other mandatory professional reporting requirements.

AAS. 1 Profit and Loss or Other Operating Statements
AAS. 3 Accounting for Income Tax
AAS. 4 Depreciation of Non-Current Assets
AAS. 5 Materiality

No other Australian Accounting Standards or other mandatory professional reporting requirements have been applied.

The statements are prepared on an accruals basis. They are based on historic costs and do not take into account changing money values, or except where specifically stated, current valuations of non-current assets.

The following specific accounting policies, which are consistent with the previous period unless otherwise stated have been adopted in the preparation of these financial statements.

(a) The Society is a non-profit making body whose expenditure in any one year is met from income received as detailed in the Income and Expenditure Statement.

(b) The Subscriptions figure of $80977 represents monies received in the year. The $80977 does not make allowance for 1998/9 year subscriptions received in advance, nor for outstanding 1997/8 year and prior period subscriptions not paid until the 1998/9 financial year, nor the receipt in the 1997/8 year of prior years subscriptions.

NOTE 2 - INCOME TAX:
Advice has been received from the Australian Tax Office that the income of the Society is considered to be exempt from income tax under Section 23(3) of the Income Tax Assessment Act.

NOTE 3 - NON-CURRENT ASSETS:
Depreciation has been provided on the prime cost method in line with the rates allowed for taxation purposes.
### INCOME 4 - 1997 JOINTLY HOSTED CONFERENCE - GOLD COAST:

#### INCOME:
- Registration Fees (net after refunds): $304,984
- Sponsorship, Exhibitors, etc.: $18,250
- Interest Received: $794

<table>
<thead>
<tr>
<th>Total Income</th>
<th>expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>$324,028</td>
<td></td>
</tr>
</tbody>
</table>

#### Less Expenditure:
- Management Fee & Outgoings: $67,548
- Fees (Mock Trial): $5,591
- Printing, Stationery, Advertising, Postages, Satchels, CD etc.: $68,755
- Speakers Expenses: $5,902
- Services to Delegates: $137,166
- Exhibition: $4,452
- Misc. Expenses, include Bank & Credit Card Charges: $8,373
- Eventcorp payments etc: $15,331

<table>
<thead>
<tr>
<th>Total Expenditure</th>
<th>expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>$313,118</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Income</th>
<th>Total Expenditure</th>
<th>Net</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$324,028</td>
<td>$313,118</td>
<td>$10,910</td>
<td></td>
</tr>
</tbody>
</table>
THE ERGONOMICS SOCIETY OF AUSTRALIA INC.
INDEPENDENT AUDIT REPORT

To the Members of the Ergonomics Society of Australia Inc.

Scope

I have audited the financial statements, being a special purpose financial report, comprising the Statement of Income and Expenditure, Balance Sheet and Notes for and forming part of the accounts of the Society for the year ended 30th June, 1998. The Council is responsible for the financial statements and have determined that the accounting policies used are appropriate to meet the needs of the Associations Incorporation Act (A.C.T.) and the needs of the members. I have conducted an independent audit of these financial statements in order to express an opinion on them to the members. No opinion is expressed as to whether the accounting policies used, and described in Note 1 are appropriate to the needs of the members.

The financial statements have been prepared for the purpose of fulfilling the requirements of the Associations Incorporation Act (A.C.T.) I disclaim any assumption of responsibility for any reliance on this report or on the financial statements to which it relates to any person other than the members, or for any purpose other than that for which it was prepared.

My audit has been conducted in accordance with Australian Auditing Standards. My procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial statements and the evaluation of significant accounting estimates. These procedures have been undertaken to form an opinion whether, in all material respect, the financial statements are presented fairly in accordance with the accounting policies described in Note 1 to the financial statements. These policies do not require the application of all Australian Accounting Standards and other mandatory professional reporting requirements.

I did not act as auditor for the jointly hosted 1997 Conference Account. I have, however received sufficient information and explanation concerning this Account to enable me to form an opinion on the financial statements.

The audit opinion expressed in this report has been formed on the above basis.

Qualifications

As is common for organisations of this type, it is not practicable for the Society to maintain an effective system of internal control over some income producing activities such as seminars, courses, meetings, etc. until their initial entry in the accounting records. Accordingly, my audit in relation to those activities was limited to amounts recorded.

Qualified Audit Opinion

In my opinion, subject to the foregoing, the financial statements present fairly in accordance with the accounting policies described in Note 1 to the financial statements the financial position of the Society as at 30th June 1998 and the results of its operations for the year then ended.

Dated at Melbourne
2nd October 1998

ARNOLD C HARRINGTON, CPA
It is my pleasure to report on the progress of Ergonomics Australia. Given that all members receive 6 issues of the journal each year, it is perhaps the aspect of the society's business which needs least description. What is perhaps more important is for the membership to take the opportunity of the AGM to give feedback to the incoming board regarding the direction of the journal. Please do take the opportunity.

Having said this, there are a number of items I wish to bring to the attention of members. The highlight of the year for me was the April issue which contained a focus on Ergonomics in Mining. The response of members and others to the call of contributions was very pleasing, and I was very pleased with the result. The other highlight, which hopefully was less evident to members, was the compilation of the June issue from Delft entirely via the internet.

The third item for the attention of members is the increasing popularity of the electronic version of the journal. The rate of downloads of the index page fluctuates with the current issue, but a steady increase is evident. I'm convinced that this medium is perfect for promoting the role of ergonomics to the wider community and strongly encourage the society to continue this activity.
The production of Ergonomics Australia is a substantial financial commitment made by the society. The details for 96/97, 97/98 and proposed budget for 98/99 are presented below.

**FINANCIAL SUMMARY**

<table>
<thead>
<tr>
<th>96/97</th>
<th>Expenditure</th>
<th>97/98</th>
<th>98/99 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editors Costs</td>
<td>$600</td>
<td>$600</td>
<td></td>
</tr>
<tr>
<td>Graphic Design</td>
<td>$6593</td>
<td>$6196</td>
<td>$6120</td>
</tr>
<tr>
<td>Printing</td>
<td>$4010</td>
<td>$6277</td>
<td>$5400</td>
</tr>
<tr>
<td>Postage</td>
<td>$2621</td>
<td>$4285</td>
<td>$3960</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$132241</strong></td>
<td><strong>$173581</strong></td>
<td><strong>$16080</strong></td>
</tr>
</tbody>
</table>

**Notes:** 97/98 costs include $1370 printing and postage for 96/97

<table>
<thead>
<tr>
<th>96/97</th>
<th>Income</th>
<th>97/98</th>
<th>98/99 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>$1890</td>
<td>$2091</td>
<td>$2500</td>
</tr>
<tr>
<td>Subscriptions</td>
<td>$209</td>
<td>$150</td>
<td>$200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2099</strong></td>
<td><strong>$2241</strong></td>
<td><strong>$2700</strong></td>
</tr>
</tbody>
</table>

The net cost of the journal is about about $2200 per issue, or $13,380 per year.

When I was appointed as editor in 1997, there was no mention of the term. The final item I wish to communicate is my intention (board willing) to step down from the editorship of the journal at the end of 1999. I hope that this early notice will enable the board to identify a successor early in 1999 and allow a smooth transition to be effected. If desired by the board, I am willing to continue to produce and maintain the electronic version of the journal for a further three years.

Robin Burgess-Limerick PhD
Ergonomics International

IEA 2000
The 14th IEA Congress, 30 July to 4 August 2000, in San Diego, CA, USA will probably be the largest ergonomics congress ever held. We anticipate 2500 attendees!

Paper sessions will be 15 minutes each (including questions); one page proposals are due 1 July 1999; the papers themselves are due 24 January 2000. You are also encouraged to organise sessions (4 papers), special symposiums (groups of 2 to 8 sessions), and workshops; proposals are due 16 April 1999.

Several rooms will be available free for groups who wish to hold meetings; reservations will be on a first-come first-served basis. Contact Lynn Strother at HFES.

Each of the 21 HFES Technical Groups will hold a meeting on either Tuesday or Wednesday of the conference; international colleagues with similar interests are invited and encouraged to attend. As part of these meetings, there will be a social hour with refreshments.

The Congress Proceedings will be available on a CD. Limited printed copies will be available.

Plan to bring your family and enjoy Disneyland, Sea World, Hollywood and the other California attractions. The Conference hotel, the Marriott, is on the beach. Mexico is just 30 minutes away. There will be an extensive technical visit program. The IEA 2000 website is: www.IEA2000.HFES.org

The IEA Secretariat is headed by Lynn Strother: HFES, PO Box 1369, Santa Monica, CA 90406-1369, USA; fax: +1 310 394 2410; email: Lynn_Strother@compuserve.com; Web: www.hfes.org

Hal Hendrick
Chair, IEA 2000
HHendrick@AOL.com

EDUCATION AND RECOGNITION OF ERGONOMISTS
John R. Wilson
Chair of the IEA Professional Practice and Education Committee

BACKGROUND
"What should an ergonomist know and do?"
"How can we get professional protection for qualified ergonomists?"
"What courses must a degree programme in ergonomics include?"
"How do we know that a certification body is recognised?"

These and other questions have been asked of the IEA by ergonomists from many different countries, belonging to different Federated Societies. These were requests for advice about the education and recognition of professional ergonomists, methods of ensuring the quality of ergonomics education programmes, and the qualities that should characterise a ‘professional ergonomist’. The diverse needs expressed have reflected the differing sizes, goals and levels of activity of the various Federated Societies. Some Societies want to support the establishment of first courses in ergonomics, while others want to protect the ergonomics profession from improper use of the term ‘ergonomist’ by unqualified individuals or groups.
The IEA’s response has been to develop relevant guidelines for the consideration of Federated Societies. To achieve this, my predecessor as Chair of the IEA Professional Practice and Education (PPE) Committee, Margaret Bullock, established a number of Task Forces to examine core competencies for the practising ergonomist, accreditation of ergonomics education programs, criteria for certification of an ergonomist, and methods of endorsing a certifying body and its certification system.

Following wide discussion, papers containing guidelines for each of these activities were presented at the IEA Council meeting at Tampere in 1997, and during workshops held during the IEA Congress. The recommendations were disseminated to Federated Societies for their information and comment in August 1997. It was agreed that they were living documents and that regular updates would take place, to reflect changes in practice or views over time. Following responses from Societies, the guidelines were presented once more to IEA Council in September 1998, where they were accepted. The Guidelines distributed in 1997 are still in place. (With the exception that in the minimum criteria for certification the minimum period for undergraduate education in ergonomics should be ‘three years’ rather than ‘four years’.) Councillors for each Federated Society hold copies distributed for the 1998 Council meeting. In addition, to ensure wide and open access, the Guidelines will appear on the IEA web site within six months.

Concerns expressed by some Councillors at the recent IEA meeting suggest that there may be some misunderstandings about the intent of the various IEA guidelines. I would like to clarify this for you.

APPLICATION OF IEA GUIDELINES

It is important to emphasise that the IEA provides guidelines only and their use by Federated Societies is entirely voluntary. There is no attempt by the IEA to be prescriptive at an international level nor do they wish to dictate national activities. Documents such as the IEA core competencies and the criteria for accreditation of educational programs (planned for presentation in 2000) may be helpful for educational institutions, but are not obligatory requirements.

CORE COMPETENCIES

The summary version and the full version of the IEA document ‘Core Competencies for Practitioners in Ergonomics’ have been accepted. These contain Units, Elements and Performance Criteria, produced after discussion and consultation at an international level, including a number of workshops at international conferences. The competencies document does not represent certification requirements for ‘professional ergonomists’, nor curriculum requirements for educational programs, although Federated Societies or Institutions may find it useful as a resource for either.

The IEA recognises that any outline of competencies has a limited life and that regular review is important. Also, even as guidance, an outline of competencies must not be too prescriptive. The IEA anticipates that Societies will suggest amendments, deletions and additions and welcomes such contributions. The IEA plans to discuss any such suggestions at the next IEA Congress in 2000, where wide international input will provide background for modifications.

ACCREDITATION

In recent years, the IEA has received a number of requests for assistance about development or review of ergonomics educational programs. The Accreditation Sub-Committee of the PP and E Committee (chaired by Margaret Bullock) is currently developing guidelines for accreditation of ergonomics programs and expects to present these in time for the IEA Council meeting in 2000. These guidelines will outline the features relevant to quality and maintenance of high standards of education. Because of the number of requests for assistance about curriculum design, the sub-committee will also address the issue of matching curricula to competency standards (or a defined sub-set of them). The IEA appreciates the importance of flexibility in curriculum design and does not plan to outline specific details of educational curricula.

It is hoped that, eventually, the IEA Guidelines for accreditation will be used by Federated Societies or educational institutions as a resource for any purpose they feel appropriate. The IEA has no plans to become the body responsible for accrediting educational
programs and no proposal of this nature has been raised or discussed at the IEA Council.

CERTIFICATION

While some Federated Societies (or regional groupings) already have a process in place for the certification of ergonomists, the IEA has received numerous requests for guidance from other Societies contemplating the introduction of certification. Through the PPE Committee, the IEA has developed a set of minimum criteria relevant to the process of certification.

The IEA Guidelines are meant to be informative and to assist Societies in the development or review of their own process of certification, if they wish to have one. The IEA, which encourages the move towards certification, appreciates the need for flexibility. Presentation of a set of minimum criteria does not prevent countries or Societies from developing other approaches or more stringent standards, but it does allow us to acknowledge, at an international level, that there is a minimum standard which all systems should meet. Criteria for the operation of a certifying body by the IEA have also been prepared for the guidance of those Societies establishing a Board or Committee to be responsible for a certification process.

These sets of criteria will undoubtedly evolve and further comments from Federated Societies will be welcomed for the IEA’s discussion at its triennial review, with the next one due in 2000.

Additional requests from some Societies for more concrete assistance has led to the establishment of an IEA Certification Endorsement Sub-Committee. This is to review and, if appropriate, endorse certifying bodies and their individual systems of certification, according to the IEA Guidelines. The IEA’s endorsement of a Society’s (or Group’s) system of certification would indicate that it had met the minimum criteria established internationally. The IEA Council approved the establishment of this Sub-committee and its terms of reference in 1997.

Submission of details of a certification process and certifying body for IEA endorsement is entirely voluntary.

REVIEW OF GUIDELINES

Some suggestions have been received from Federated Societies for modification to the IEA core competencies and these are being collated so that, at the next formal review of the documents (IEA 2000), they may be incorporated where appropriate.

I would welcome further contributions from Federated Societies about any of the guidelines. The IEA must reflect a good international consensus, especially in such matters of professional standing and recognition.

Professor John R. Wilson, Head of Division of Manufacturing Engineering and Operations Management, University of Nottingham, Nottingham NG7 2RD, United Kingdom.
Email: john.wilson@nottingham.ac.uk

CERTIFICATION

The Board of Certification in Professional Ergonomics (BCPE) now offers a second level of certification: Certified Ergonomics Associate (CEA).

The highest level certification is CPE/CHFP (Certified Professional Ergonomist; Certified Human Factors Professional). It is for an individual

(1) with a Master’s degree in ergonomics or a related discipline, and
(2) has at least 4 years full time experience in practice of ergonomics and
(3) has a passing score on a 7 h exam.

A category of CPE/CHFP is AEP/AHFP (Associate Professional Ergonomist; Associate Human Factors Professional); it is for an individual who has recently graduated from a Master’s degree program accredited by an International Ergonomics Association federated society. If the individual graduated from a non-accredited program, the person must pass a 2 h exam. An AEP/AHFP is considered an “ergonomist in training”. If they do not transition to CPE/CHFP within 5 years, the AEP/AHFP is withdrawn.

The Certified Ergonomics Associate (CEA) is for an individual who

(1) has a Bachelor’s degree from an accredited university, and
(2) has at least 200 h of ergonomics training, and
(3) has at least 2 full years practising ergonomics and
(4) has passed a 4 h exam.

For information, see the BCPE web site at www.bcpe.org or send email to bcpehq@aol.com
**ACT TECHNICAL MATTERS**

An interdisciplinary "Think-Tank" has been set up in Canberra to come up with creative solutions to organisational problems. The groups involved include the Ergonomics Society of Australia, the Australian Psychological Society and the Industrial Engineering Society. The group had its inaugural meeting on 14 October at The Canberra Hospital, and it will meet monthly.

Richard Sutherland expressed his concern about the loss of qualified occupational health and safety people from Government agencies, further, that this seems to be a national trend. As OHS people are absorbed into HRM areas the importance of occupational health and safety diminishes. It becomes just one of the tasks HRM people are expected to fulfil.

It was widely held that organisations need to understand that the drive for continuous growth is unsustainable and that it is this irrational pursuit that is driving the restructuring madness. There is sufficient evidence to demonstrate conclusively that people in the workforce are fatigued by successive restructurings and the benefits of such restructurings are short-lived and unconvincing. Indeed, the loss of corporate knowledge, expertise and skills eventually do more harm to these organisations than good. Poor morale and poor leadership are generally the outcome.

Interested people from other disciplines are encouraged to come along to meetings and to throw their views on the table for consideration and development. It is anticipated the Think-Tank will report on its activity toward the end of 1999. The Think-Tank will meet again on 11 November 1998 at 5.30pm in Room 1012, L.F. Crisp Building, ANU. Contact Linda Glassop on (02) 6249 4867.

Margaret Kennedy has just returned from a holiday in Bali. No other ESA members have been overseas on holiday or have had babies.

Planning has commenced on the 1999 Scientific Program and it promises to be a very interesting year for members.

At its last meeting, the ACT Branch executive agreed unanimously that we need to identify current and local issues and be prepared to comment publicly on them. All comment would of course, need to be cleared through the President or Executive Officer prior to release to the media. Margaret Head has agreed to draft a letter on pedestrian safety which having been cleared through the president, each branch should send to a major newspaper in their respective states/territories. This would be a coordinated media release, Australia-wide. Briefing papers for Branch Chairpersons will accompany the media release. Other branches are encouraged to scan newspapers to look for issues of relevance and to publicly comment or alternatively, to raise issues ourselves and to coordinate a national response as suggested above.

Margaret Head

---

**GOLDTOUCH COMPUTER MOUSE**

One of our Victorian members, Mark Goldstein has devised a new PC mouse which is known as the Goldtouch Mouse.

Mark describes the instrument as being "developed using ergonomic principles with the aim of increasing comfort and productivity during mouse operation".

PIE meeting - September 25th

This session was presented by Phil Clark, who outlined some case studies using cost-benefit analysis of ergonomics proposals and interventions. Phil's session had plenty of input and vigorous discussion. He emphasised the need to put dollar values on as many costs or benefits as possible, to persuade managers. We agreed that ergonomicists also "sell" benefits which defy economic justification or measurement. Phil quoted and...
showed some good reference material to the group, and also some interesting spreadsheet work using Excel. Here is Phil's own summary of the session:

Cost-Benefit Analysis in Ergonomics

Cost-benefit justification (CBA) in ergonomics practice

‘Ergonomics is about optimising the interaction between people and their activities.’ Optimising requires alternative outcomes and achievement programs, plus evaluation measures and comparison baselines.

CBA compares cost and benefit estimates of alternatives, to identify the optimal net outcome. Cost-effectiveness seeks the cheapest cost for one untested outcome.

Assumptions are necessary - the value of an unemployed farmer; the probability of expected outcomes fully achieved within the timeframe? It is crucial to understand your assumptions and how they influence outcomes.

One starts from measurable objectives. Alternatives - and associated costs and benefits - are identified, valued in 1998 dollars, and a net value calculated for each. Comparison of net values identifies the optimal combination from the alternatives considered. Outcome impacts of changes in assumptions and data must be tested.

Two examples were discussed - working from home, and a health-based smoking ban.

Cost estimation is usually simple.

Benefit estimation can be direct (more production) or indirect (added cost, if not improved). For workplace injury prevention, basic measures are changes in premium (direct cost), and oncosts (indirect cost) not recoverable from insurer. Preventing a major injury claim affects premiums so little and late, due to probability, capping and lag effects, that cost-benefit justification is difficult in Victoria. Assumptions seriously affect published oncost estimates. The Industry Commission estimated business oncosts average 35% of claim costs.

Recent Canadian studies reported business oncost = initial oncost (~ C$800) + oncost of days lost (at ~ C$53/day)

Victorian initial oncosts may be higher, with "first 10 days and $426 of medical, hospital, etc." included.

The "Productivity model" is a benefit estimating tool. The assumptions used limit its utility.


Number crunching: Simple payback approach for small, quick benefit projects, discounted cashflow for significant costs and delayed benefit realisation.

After several consultants noted that dollar justifications had never been required of them, Jan McDonald pointed out that in-house ergonomists do need these skills. Communication in dollars uses language that decision-makers generally understand . . .

A couple of hyperlink addresses on resources which could be useful for calculating benefit numbers: Monash MUARC ref is wwwgeneral.monash.edu.au/muarc/rptsum/es124.htm The MUARC catalog refers to some of Brian Fildes work wwwgeneral.edu.au/muarc/pubid.htm.
SUMMARY OF COMPETENCIES, QUALIFICATIONS AND MEMBERSHIP WORKSHOP

Owen Evans & Wend Macdonald (via ergonoz)

Those unable to attend the recent ESA conference, and those who did, but did not stay for the "Competencies, Qualifications and Membership" workshop missed a lively and illuminating discussion. About 30-35 people were there.

The session started with brief discussion papers (Ian Gibson on the changes to the ESA membership criteria, Barbara McPhee on competencies and their assessment, Roger Hall on the role of educational qualifications, Jeff Frith on the PAB and CPE grade, Margaret Bullock on the international scene, and the development of criteria papers by the IEA, and David Caple on a "whither hence" theme). For more details, consult the proceedings.

But the main value came in the 3 discussion groups, and more importantly the plenary which followed. We won't attempt to comprehensively review the discussion (Neil Adams has undertaken to write the workshop up, and no doubt this will appear in EA at some stage), but several important points came up several times.

While the overall theme was intended to cover all grades of membership, the discussion quickly turned to the CPE level.

1. Resources.
The first big issue is the problem of the resources (which the ESA patently doesn't have at present) to credibly assess a membership structure based on the competencies paper. Both the small size of the ESA and its dependence on volunteer contributions for all its activities are seen as mitigating against the effective assessment processes. Understood, but less clearly stated is the ever-present problem of parochialism in small organisations.

2. International standards.
But perhaps the most important "new" information came from the IEA through Margaret Bullock. Margaret had announced at the AGM earlier in the week the IEA Council's endorsement of:

IEA minimum criteria for certification of the ergonomicist
IEA criteria for the endorsement of a certifying body
IEA core competencies for the practising ergonomist (available at http://www-iea.me.tut.fi/iea/coremain.html )

From discussion of the first two of these documents, it was noted that North America (through the BCPE - Board of Certified Practising Ergonomists) and Europe (through CREE - Centre for Registration of European Ergonomists) were the furthest towards implementing the criteria, but that many other ergonomics societies were expected to apply the standards adopted by one or other of these.

While no vote was taken, the strong feeling we took from the meeting was that Australia should adopt at least the minimum IEA criteria.

2.1 Australia's Current Standards.
Margaret Bullock pointed out that Australia has the least demanding criteria for achieving recognition as a certified ergonomist of any country, making it the 'lowest' of a large set of countries including many that we would otherwise regard as less developed than Australia(!!).

2.2 Relationship between Society membership and certification.
Australia deviates from international 'best practice' concerning "Criteria for IEA endorsement of certifying bodies", in that membership of the ESA is currently a prerequisite for becoming a certified ergonomist.

In contrast to the current ESA position, the IEA states that: "The eligibility criteria used by the certifying body should ... be independent of whether the person is a member of ergonomics Society membership."

This issue aroused considerable discussion in the closing moments of (and after) the workshop. If the IEA criteria are to be adopted - as we strongly believe they should be - then the current Australian certification process will need to be adjusted appropriately.

2.3 Processes for demonstrating/assessing competencies.
Issues related to the means by which core competencies can be demonstrated were rather overshadowed by the above issues. The BCPE (North America) and the CREE (Europe) have taken rather different routes to the
certification of individual ergonomists, particularly in the BCPE requirement to pass an exam. Clearly this topic will need more discussion in its own right.

OVERALL
It was the best structured and most comprehensive workshop on these issues that I’ve attended at an ESA conference (or elsewhere). Congratulations to Neil and the panel. Just a pity that more people weren’t there to participate in it.

Clearly the IEA documents need to be more widely known within the ESA and the Australian ergonomics community (perhaps published in EA?) so that their implications can be better understood, and their implementation can be debated.

(Editors note: as a member of the competencies committee I can add that the IEA documents were available before the ESA/NZEA document was finalised.)

CybErg 1999

Dear Colleagues,

Travel to your next international ergonomics conference free! CybErg 1999, the second international cyberspace conference on ergonomics, follows the highly successful CybErg 1996. Over 1,000 ergonomists from 34 countries participated in CybErg 1996. CybErg 1999 promises to be even bigger and better.

For further details visit the website:
http://www.curtin.edu.au/conference/cyberg/

Please pass on these details to other colleagues who may be interested.

Looking forward to your participation in CybErg 1999.

Dr Leon Straker
General Chair, CybErg Conference.

Conference Secretariat:
Congress West Pty Ltd
PO Box 1248
West Perth WA 6872
Australia
Tel:+ 61 8 9322 6906
Fax: + 61 8 9322 1734
Email: conwes@ congresswest.com.au
ERGOBUYER(TM) (HTTP://WWW.ERGOBUYER.COM).
(from Peter Budnick)
ErgoBuyer is linked to ErgoWeb, but it's really a completely separate site designed to help us all find the products and services we need, and the companies that sell them.
ErgoBuyer will also host feature articles documenting the Economics of Ergonomics. The first submission is from Bob Getty, Lockheed Martin Corporation, documenting substantial savings through the application of ergonomics principles in the workplace. (see below).
The site will also feature product spotlights and pointers to interesting topics (currently you’ll find an office ergonomics training video, ergonomic castors and wheels, a therapeutic cold pack for the hand, wrist and forearm, and *ergonomic underwear for men* ...).

ERGONOMICS IMPROVEMENTS ARE COST EFFECTIVE
http://www.ergobuyer.com/Getty/gettyb.html
Robert L. Getty, Ph.D., CPE
Ergonomics Engineering Specialist Senior
Lockheed Martin Tactical Aircraft Systems (LMTAS)
P.O. Box 748, Fort Worth, Texas 76101, USA
Abstract
Manufacturing design processes for complex systems, like advanced fighter aircraft, require a special emphasis on human interactions to technical fabrication and assembly functions. The role of the human is being refined as manufacturing processes become more sophisticated. The infusion of human performance requirements into manufacturing design is a sensible approach to achieving efficient, cost-effective manufacturing processes. Organizational dynamics is thrust into focus during any discussion of financial investment for ergonomics. Ergonomics change process cannot be so much dramatic as evolutionary - an incremental change from where the organization is to where it needs to be. The focus of this paper is to discuss the early input of ergonomics criteria and the benefits of addressing the human interaction in the manufacturing design process. Cost justification of ergonomics improvements must be process-oriented and tied to business goals.

NIGHT SHIFT IN THE PRESS ROOM
http://wwwiusb.edu/~labor/Research/niteab.html
Edward Hertenstein BSLS
Abstract
In the newspaper industry, it is common for newspapers to publish afternoons during the week and switch to nights on the weekends. As a result, the pressroom workers at these papers often have to work days during the week and switch to nights on the weekend. This article examines the health effects on these pressroom workers by first looking at what is known about the health effects of shiftwork, and then surveying pressroom workers specifically to see if there is a difference. After examining the results of the survey, possible answers to the problems are offered.
Not strictly an electronic resource, but some might be interested to know the following:
Johan Molenbroek has announced the availability of a publication describing the results of an investigation of physical (58 variables), psycho-motor (12 variables) sensory (7 variables) and cognitive (2 variables) capacity of 627 independent living elderly and compared this with a group of 123 younger people, age 20-30.
For every variable they tried to formulate: applications, examples, warnings, tips and tricks and design guidelines. The book contents 433 pages and is written in English. See http://wwwio.tudelft.nl/research/ergonomics for more information.
Measuring Behavior '98: Conference Proceedings available on-line
The proceedings include some 150 summaries of presentations, with illustrations and links to other resources.

This is a six page summary of the findings. Available at http://www.mnsi.net/~wohis/. A more detailed report is available from WOHIS.

OFFICE CUMULATIVE TRAUMA
A number of firms involved in office equipment (such as Compaq, Herman Miller, IBM, Logitech, Microsoft, Steelcase, Xerox, etc.) have funded the Office Ergonomics Research Committee (OERC) since 1991. The OERC funds studies related to office ergonomics. Their latest booklet (16 pages) is "Upper Extremity Musculoskeletal Disorders in the Office Workplace"; it describes some recent studies.

In the USA, "repeated traumas" peaked at 332,000 in 1994 and decreased to 308,000 in 1995 and 281,100 in 1996. The incidence rate was 41.1 in 1994, 37.8 in 1995 and 33.5 in 1996. The booklet summarises research concerning
- Input devices
- Workstation ergonomics
- Psychosocial influences
- Diagnosis and treatment
- Rest breaks and exercise
- Ergonomic training

For your free copy of the booklet, contact Bob Bettendorf at betten@sover.net; Web: www.oerc.org

Conference Calendar

1999
March 11-13
April 7-9
UK Ergonomics Society Annual Conference
University of Leicester. email: ergsoc@ergonomics.org.uk; http://www.ergonomics.org.uk
May 9-12
3rd National Conference on Injury Prevention and Control, Brisbane, Secretariat: IPC 99 C/ Intermedia
PO Box 1280 Milton Qld 4064 Tel: 07 3369 0477
Fax: 07 3369 1512 Email: ipc99@im.com.au
May 12-15, 9th European Congress on Work and Organizational Psychology, Espoo-Helsinki, FINLAND.
Contact Sanna-Leena Savola, FIOH, Topeliuksenkatu 41 a A, FIN-00250, sasa@occuphealth.fi
May 19-21
4th Int. Computer-Aided Ergonomics and Safety Conference, Barcelona SPAIN. Contact Markku Leppanen, PO Box 541, FIN-33101 Tampere FINLAND; mleppane@cc.tut.fi; http://www.caes99.org
June 6-9
14th annual International Occupational Ergonomics and Safety conference, Orlando, FL, USA. Contact Prof. Gene Lee, Dept. of Ind. Engineering, Univ. of Central Florida, Orlando, FL 32816; GLEE@mail.ucf.edu
June 15-17
TQM and Human Factors, Linkoping, Sweden.
email plajjo@udv.liu.se; fax: + 46 13 122299
June 16-19
European Conference on Transport Psychology, Angers, FRANCE. Contact Secretariat AEPSAT, BP808, Place Andre Leroy 49008 Angers Cedex 01 FRANCE; europsyt@uco.fr; www.inrets.fr
Information to Contributors

SUBMISSION DEADLINES

The deadline for each issue is the 15th of the previous month etc... the deadline for the February issue is January 15, the deadline for the December issue is November 15, and so on. All submissions must be by email. Submissions may be made for later issues by fax or mail, but if you have items of an urgent nature and no easy access to email, please mail a floppy disc with the information to Margot Lynch at the Federal Secretariat, The Ergonomics Society of Australia Inc., Canberra Business Centre, Braddock St., Downer ACT; Ph. 02 6242 1951; Fx 02 6241 2554; email: esa@ozemail.com.au

CONTRIBUTIONS

Contributions to Ergonomics Australia are always welcomed and encouraged.

The activities, achievements, experiences, views and opinions of Members are always of interest. These can take the form of letters, notices, notes, commentaries and articles.

Graphics (photos, illustrations, drawings, computer graphics etc) are particularly welcome and should be camera ready. Photos need not be black and white and negatives are not required.

The preferred form of submission is via email, either in the body of a message, or as an attachment. Files may also be mailed on floppy (or Zip disc if very large). Virtually any format of files can be accommodated. Otherwise contributions should be printed in a large (14 pt preferred) non-serif font (such as Helvetica) and faxed to 07 3365 6877. Printed pages of similar specification may also be sent by post. Handwritten submissions will only be accepted in exceptional circumstances.

Any enquiries about contributions should be directed in the first instance to the Editor.
Information to Advertisers

ENQUIRES
All advertising enquires should be directed to the Federal Office of the Society.

Contact:
Ms Margot Lynch
tel: 02 6242 1951
fax: 02 6241 2554
email: esa@ozemail.com.au
9am - 1pm Monday to Thursday

SIZE
The finished page size of the Newsletter is B5 (250 x 176mm)
Printed column sizes are 210 x 152mm (double)
or 210 x 72mm (single).

ADVERTISING COPY
Must be camera ready and must arrive at the ESA Federal Office by the Copy Deadline Submission Date for the Edition(s) in question.
A professional advertising design service is available for producing camera ready copy if required. For further enquires regarding this service contact:
Mr Goro Jankulovski, Perception Communications
tel: 03 9417 6066 mobile: 0412 604 414
e-mail: percep@ozonline.com.au

RATES FOR ADVERTISING (SUBJECT TO CHANGE IN 1997)

<table>
<thead>
<tr>
<th></th>
<th>Full page</th>
<th>1/2 page</th>
<th>1/4 page</th>
<th>1/8 page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>$300</td>
<td>150</td>
<td>75</td>
<td>38</td>
</tr>
<tr>
<td>2 issues</td>
<td>270</td>
<td>135</td>
<td>68</td>
<td>34</td>
</tr>
<tr>
<td>3 issues</td>
<td>240</td>
<td>120</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>4 or more</td>
<td>210</td>
<td>105</td>
<td>53</td>
<td>27</td>
</tr>
</tbody>
</table>

ENCLOSURES
Pre-printed enclosures (leaflets, brochures etc) are welcome for inclusion with the Journal.
Enclosures should be pre-folded to fit inside the finished Journal.

Rates for enclosures (subject to change in 1997)
Enclosure not requiring folding $375
Enclosure requiring folding $420

These rates may increase if the enclosure weighs more than the equivalent of 2 standard weight A4 pages.

650 copies should be sent to arrive at the ESA Federal Office by the Copy Deadline Submission Date for the Edition in question.

ADDRESS FOR MAILING COPY AND/OR ENCLOSURES
ESA Federal Office
Canberra Business Centre
Bradfield St, Downer
ACT 2602

CIRCULATION
The Journal is published six times a year and is received by approximately 650 professionals Australia wide working in the areas of ergonomics, occupational health and safety, and design.

CAVEATS
The views expressed in this Journal are those of the individual authors and contributors and are not necessarily those of the Society.
The ESA Inc. reserves the right to refuse any advertising inconsistent with the Aims and Objectives of the Society and Journal Editorial Policy.
The appearance of an advertisement in the Journal does not imply endorsement by the Society of the product and or service advertised.
The Society takes no responsibility for products or services advertised herein.
The 1999 Membership Directory is being prepared for issue in March 1999.

Should you have any specific requests for how your name is listed (i.e., you want your work address rather than your home address where EA is mailed) please forward these details to the Secretariat by Friday 15 January 1999. Those members who requested this action for the October 1997 Directory need not advise the Secretariat again.

If you do not notify us your entry will contain the information provided on your membership renewal form - name, business name (if applicable), contact address, membership status, occupation, position (if known), telephone number, fax number, email address, areas of special interest (optional extra entry).

Once again ESA members can increase their profile in the Membership Directory by advertising. If you wish to do so please complete the following and return it to the Secretariat no later than Friday 15 January 1999.

Name: ..............................................................................................................

Address: ...........................................................................................................

Postcode: ..................................................

Phone: ......................................... Fax: ..........................................................

Email: ............................................................

- I wish to take out a quarter page advertisement and my camera ready advertisement is attached. $100.00

- Please print my entry in bold as detailed above $25.00

- Please add the following under my entry indicating area of special interest (ten words maximum) $25.00

Amount enclosed: $ ..........................................................

All material and payments should be forwarded to the ESA Secretariat, Canberra Business Centre, Bradfield Street, Downer ACT 2602 by Friday 15 January 1999