

# AUSTRALIAN SOCIETY OF



## EXPLORATION GEOPHYSICISTS

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## INTRODUCTION

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One of our members, Dr Ken McCracken, Director of COSSA received a 1988 CSIRO medal in honour of exceptional work completed within CSIRO as well as for one project from outside the organisation. The medal was presented by the Minister for Science, Mr Jones. Dr McCracken has been in charge of COSSA since its formation in 1984. He received his award for leadership in space activities and achievement in geophysics research.

We recently received a press release from Grant-Norpac to say that from February 1989 the company had been acquired by an investment group of affiliates of the Hillman Company of Pittsburgh, which is a group of investors organised by Simons and Company of Houston and key management of Grant-Norpac. The company is the sixth largest geophysical company operating on a worldwide basis and is the result of the merger of four old-line geophysical contractors, the latest being Seiscom Delta United which was acquired by Grant-Norpac in 1987. The company provides the oil exploration industry with geophysical data processing and data acquisition services.

The Federal Executive of the ASEG held their Annual General Meeting in conjunction with the W.A. State Branch at the Raffles Hotel on 5 April. The reports presented by the office bearers and individual committees are published in this edition of Preview.

Preview is developing into a suitable vehicle for members to express their views although further improvement is planned for this year. It became necessary to define an editorial policy for the newsletter and it was decided that the editor would have a discriminatory role in what appears in Preview in consultation with the Federal Executive.

For more news, please read on.

Regards

The Editor

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## ASEG BRANCH NEWS

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### ACT

The February meeting was held jointly with the G.S.A. and P.E.S.A. The guest speaker, Mr Graham Winterbottom (of Airship Industries in the United Kingdom), spoke on "The Airship - Its capabilities and scientific applications". It was thought that the airship would have potential use for geoscientific investigations, both geophysical and geological. Following the meeting members were invited to attend a dinner.

### SOUTH AUSTRALIA

At the February meeting Mr Terry Barr of Santos Limited gave an informative talk on "An Exploration Manager's Requirements of a Geophysicist". The state committee called for nominations for the 1989-1999 Executive to be in by March before the AGM in mid March. The past committee has suffered from the departure of its President (Kim Frankcombe) to Perth, Vice President (Martin Bayly) to Sumatra and Mike Brumby to Perth. They wish these people good luck and thank them for the work done last year.

### QUEENSLAND

The Branch held a meeting on 4 April where Mr Russel Cuthbertson gave a talk entitled "Earthquake Seismicity - Another tool for the Geoscientist". Russel was very considerate in that he supplied an abstract of his talk to members prior to the meeting.

### VICTORIA

ABQ and farewell party was held for Mick Micenko and his family in February. Mick was a past President and Secretary of the Victorian Branch. He was also the Treasurer of the Melbourne '89 Conference Committee and a member of the ASEG Federal Executive. He left Melbourne for the dry climes of Oklahoma City. The Committee wish Mick and his family good luck in the future.

At the February technical meeting, Paul Baker from Monash University, spoke on "Signal Processing for Ground Scanning Radar". Student Night was held on 14 March with a prize of \$500 to the best student plus the 1989 scholarship award.

The speeches given were as follows:

1. "The Geophysics of the Murmungee Basin, NE Vic", by Paul McDonald from Latrobe University.
2. "Removal of the Effects of Surface Limestone Reefs on Seismic Reflection Data", by Robert Harms from Melbourne University.
3. "Signal Processing for Seismic Refraction Surveys", by Zis Katelis from Monash University.
4. "Interpretation of Magsat Anomalies", by Steve Koumouris from Monash University

The Branch has been particularly active recently with monthly technical meetings. On 8 April, David Jupp of CSIRO spoke on the "Imaging of Geophysical Data". On 16 May, Peter Arditto of BHP Petroleum is scheduled to speak on a "Seismic Stratigraphic Overview of the Sydney Basin". Meetings are usually held at the Kelvin Club where members are advised to observe the dress code with no jeans allowed.

The present Victorian ASEG Committee have been asked to retain their office and to hold the next election in December for new officers to commence on 1 January, 1990. Tom Whiting has joined the committee in place of Mick Micenko who has moved overseas.

If you have changed your address please sent your new one to Peter Grant at BHP Petroleum, 26th floor, 35 Collins Street, Melbourne Vic 3000.

## NEW SOUTH WALES

The NSW Branch held its Annual General Meeting at Len Evan's Wine Restaurant on Thursday, 6th April. A highly entertaining and erudite talk by Dave King entitled "Forensic Geophysics" demonstrated how even a humble geophysicist can out-talk the smooth tongues of the legal profession.

Next year's Executive was selected as follows:

|              |                          |
|--------------|--------------------------|
| President    | Steve Greaves (Hartogen) |
| V. President | Chris Hodge (Ampol)      |
| Secretary    | Scott Gagen (Ampol)      |
| Treasurer    | Len Diekman (Petsec)     |

The meeting was well attended and the subsequent dinner provided a successful social event.

## WESTERN AUSTRALIA

The Branch held a joint AGM with the Federal Executive Committee on 5 April. The following committee members were elected:

|               |                                   |
|---------------|-----------------------------------|
| President:    | Euan Clark (Tesla-10)             |
| V. President: | Graham Jenke (Kevron Geophysics)  |
| Treasurer:    | Mike Brumby (WMC)                 |
| Secretary:    | Terry Walker (WMC)                |
| Committee:    | Roger Clifton (Curtin University) |
|               | Brian Evans (Curtin University)   |
|               | Kim Frankcombe (Aerodata)         |
|               | Graham Bubner (CRA)               |
|               | Andy Lebel (Data Science)         |
|               | Ian Edwards (WMC)                 |
|               | Cameron Blyth (NVC)               |

After the meeting Mr Brian Rear of the Barrack Group spoke on "Approaches to financing of Resource Projects: a Review of Financing schemes for Hydrocarbon and Mineral Projects".

## REPORTS TO THE AGM

PERTH 5 APRIL 1989

### President's Report

by E.A. Howell

The last eleven months since the May 1988 AGM in Adelaide had a large chunk of time taken out by the transfer of the Executive from Adelaide to Perth, with an element of disruption in the normal business of the Society. However, the Society has continued to make progress in the year with the main achievements being:



1. **Upgrading and expansion of PREVIEW** - whilst Preview has become more of a social and technical exchange vehicle for the ASEG, the number of letters and articles received from individuals other than branch or executive officers remains disappointingly low - it's your voice - let's hear you!
2. **The increase in education awareness** - the ASEG's attention was gained by notification of potential cutbacks in geophysical teaching and funds in Australian Universities. In trying to respond to individual cases, your Society realised that our basic information database was inadequate. Consequently, Don Pridmore initiated the distribution of a questionnaire to all tertiary institutions to obtain more information on student levels, research projects, funding etc. Responses from these questionnaires are now being analysed to enable the Society to respond in an informed way to educational and governmental bodies on questions relating to geophysical education in Australia. Also on the educational front, a brochure on exploration geophysics is being prepared for school leavers and undergraduates which will ultimately be supplied to careers offices throughout the country and satisfy the many requests the Society receives for information on exploration geophysics.
3. **Setting up of the Research Foundation** which was first proposed by the Adelaide based Executive Committee has been delayed by the need to alter the Articles of Association. However, the formal changes are expected to be completed shortly and the first committee appointed. Bob Smith has agreed to chair the initial committee and is raring to go, once the legal formalities are complete.
4. The publication of selected monographs has been

discussed by the Federal Executive and members are urged to express their views on this proposal - an article will appear in this issue of Preview asking for comments on the proposal.

I would like to thank all the members of the Federal Executive Committee for their support and efforts over the past year and also the members of the sub-committees. I am looking forward to serving another year on the committee as Past President and making a contribution to the setting up of the Research Foundation.

I wish the incoming President and his committee every success for the coming year.

### Secretary's Report

by G.J. Street

As Secretary of the Australian Society of Exploration Geophysicists Federal Executive for 1988/89, I herewith present the following report to members concerning the affairs and activities of the Society for the year ended 31 March, 1989.



#### 1988/89 OFFICE BEARERS

|                      |               |
|----------------------|---------------|
| President            | Eve Howell    |
| Past President       | Bob Smith     |
| 1st Vice President   | Don Pridmore  |
| 2nd Vice President   | Peter Grant   |
| Hon. Treasurer       | Bill Peters   |
| Hon. Secretary       | Greg Street   |
| Hon. Asst. Secretary | Anita Heath   |
| Hon. Editor          | Don Emerson   |
| Public Officer       | Steve Greaves |

#### STANDING COMMITTEE CHAIRMEN

|                      |                 |
|----------------------|-----------------|
| Conference Advisory  | Steve Mudge     |
| Corporate Affairs    | Steve Greaves   |
| Financial Advisory   | Disbanded       |
| Geophysical Activity | Roger Henderson |
| Honours & Awards     | Lindsay Ingall  |
| Members - States     | Anita Heath     |
| Publications         | Terry Crabb     |
| SEG Relations        | Reg Nelson      |
| Technical Standards  | Don Pridmore    |
| Student & Academic   |                 |
| Liaison              | Andy Mitchell   |

The following nominations have been received for the Executive Committee for the year 1989:



|                    |               |
|--------------------|---------------|
| President          | Greg Street   |
| 1st Vice President | Mike Sayers   |
| 2nd Vice President | Greg Steemson |
| Treasurer          | Bill Peters   |

The following have indicated their willingness to accept the responsibilities of:

|                      |               |
|----------------------|---------------|
| Hon Secretary        | Craig Dempsey |
| Hon. Asst. Secretary | Anita Heath   |
| Hon. Editor          | Don Emerson   |

## MEMBERSHIP

The Secretariat has written a new membership database programme and upgraded the membership listing. The programme is the property of ASEG and abbreviated versions have been circulated to all states.

It is ASEG's policy that the membership database be used solely for ASEG purposes and not made available on a commercial basis. This aspect of confidentiality has been advised to all secretaries. Companies or persons wishing to contact ASEG members should do so by advertising in one of the state or federal newsletters or "Exploration Geophysics".

The ASEG membership voted at the last AGM to change the Society's financial year from January to December. Delays have been experienced in getting the change to our Articles through the NSW Corporate Affairs Commission. Notwithstanding this approval the Treasurer closed the books as at 31 December, 1988. Membership under the old Articles would have been paid up to 31 March and I therefore list the financial membership for the past five years:

| Membership Status  | 1985 | 1986 | 1987 | 1988 | 1989 |
|--------------------|------|------|------|------|------|
| Active & Associate | 916  | 842  | 744  | 729  | 789  |
| Corporate          | 47   | 40   | 37   | 37   | 30   |
| Honorary           | 6    | 6    | 6    | 6    | 5    |
| Student            | 124  | 63   | 58   | 60   | 55   |
| Total              | 1093 | 951  | 845  | 832  | 879  |

A breakdown of membership on a State (Australia) and overseas basis is as follows:

| Australia | 1986 | 1987 | 1988 | 1989 |
|-----------|------|------|------|------|
| ACT       | 79   | 73   | 73   | 72   |
| NSW       | 272  | 238  | 219  | 225  |
| QLD       | 93   | 89   | 95   | 99   |
| SA/NT     | 146  | 139  | 112  | 103  |
| TAS       | 9    | 8    | 6    | 6    |
| VIC       | 95   | 85   | 83   | 95   |
| WA        | 141  | 137  | 148  | 169  |
| Total     | 835  | 769  | 736  | 769  |

| Overseas      | 1986 | 1987 | 1988 | 1989 |
|---------------|------|------|------|------|
| North America | 64   | 40   | 46   | 54   |
| Europe        | 24   | 22   | 26   | 26   |
| Asia          | 16   | 10   | 11   | 9    |
| Africa        | 11   | 4    | 7    | 9    |
| Oceania       | 1    | 0    | 6    | 12   |
| Totals        | 116  | 76   | 96   | 110  |

## BRANCHES

During the year the State Branches were led by:

| State | President     | Secretary                  | Treasurer   |
|-------|---------------|----------------------------|-------------|
| ACT   | P. Williamson | K. Wake-Dyster             | M. Sexton   |
| NSW   | D. Kirkham    | C. Hodges                  | T. Pippett  |
| QLD   | C. Astill     | D. Burns                   | G. Hines    |
| SA/NT | K. Frankcombe | N. Gibbins                 | A. Anderson |
| TAS   | R. Richardson | D. Leaman                  | -           |
| VIC   | P. Grant      | C. Gumley                  | J. Cull     |
| WA    | C. Ramsden    | D. Rompotes &<br>T. Walker | S. Gunson   |

## SECRETARIAT

Secretarial services and management of the membership database have been provided to the Society by Paula Sinclair of the Chamber of Mines of W.A. Paula has upgraded the database considerably and now unfinancial members for 1988/89 have ceased to receive publications. Many members long in arrears or unlocatable have been deleted from the database. A number of these have subsequently applied for reinstatement.

## PREVIEW

The Federal newsletter 'Preview' was upgraded during the year and plans are in hand to further improve it in the next financial year. I commend it to all members and especially corporate members as a means of quickly advertising services, events and other items of interest to members.

My thanks to other committee members and to Paula Sinclair for their support during the year.

## **Treasurer's Report**

by W.S. Peters

As a company limited by guarantee, the ASEG is obliged under the Companies (NSW) Code to prepare audited annual accounts and to present these accounts along with the auditor's report at the AGM.

As you know, the Federal Executive was moved to Perth during 1988. The following few months were a little chaotic as the new committee settled into an unfamiliar task, a secretariat was set up, files and records were transferred, bank accounts were transferred and so on. All appears to be reasonably under control now.

We have appointed a Perth company, Slee & Stockden Pty Ltd, as our accountants and they have prepared the accounts attached to this report. These accounts are unfortunately only in draft form at present. It is expected some minor changes will be made to the final accounts. Our previous auditors in Adelaide have submitted their resignation effective 31/3/88 and we have invited a Perth auditor, Colin Johnson, to be the company's new auditor as from 1/4/88. He has accepted pending the approval of the members and commenced the audit. The audit will unfortunately not be complete until 31 May, 1989.

This financial year consists of only nine months because of the change to a calendar financial year. This will have some effect on the accounts for comparison with previous years.

Dues were increased for the 1989 financial year as most of you are aware after a period of several years with no increase. This was to lift the revenue base following the financial setback as a result of the Adelaide conference.

For the first time State accounts have been brought into the Federal accounts. This is because the State branches are essentially part of the company and all funds are the property of the company and have to be accounted as such. This will not lead to any change in the operation of the State branches and they will maintain control of their respective finances. The State branches have cash balances of \$39 898.

The Grahame Sands and Laric Hawkins Memorial Funds are also included in the company accounts but are held in trust and not used for normal operations. These accounts have balances of \$28 400 and \$954 respectively.

The more significant items apparent from the accounts are:

### **1. PROFIT AND LOSS**

Income of \$92 357 was higher than the \$46 485 for the previous year as was expenditure of \$82 493 compared to \$37 747. Net profit of \$9 864 was up on the previous year's \$8 738. These figures are not comparable because of the inclusion of the State finances this year.

The bulk of our income was from membership dues which at \$37 368 was marginally higher than the previous year. There was a substantial drop in advertising revenue because of late billing for Exploration Geophysics advertising. It is expected that this will be reflected in additional income in the 1989 financial year.

The main expenditure items for the year (apart from the S.A. branch wine purchases balanced by wine sales) were capitation fees of \$7 881, publication expenses of \$14 785 and an additional loss on the Adelaide conference of \$11 555.

### **2. BALANCE SHEET**

Net assets stand at \$151 880 compared to \$106 372 in the previous year. These funds include \$29 354 within the Grahame Sands and Laric Hawkins memorial funds and \$39 898 held by the State branches (not accounted for in the previous year's figure).

The sundry debtors consists largely of \$22 000 estimated revenue from Exploration Geophysics advertising.

The Victorian 1989 conference has been advanced a loan of \$7 000 for working capital.

### **3. GENERAL**

The Adelaide Conference resulted in a total loss of \$59 554 to the Society. This is a very large loss indeed for a society the size of ours and should never be repeated. All conference committees bear a heavy responsibility to ensure that conferences run at a profit.

The overall financial position of the Society is sound. An increase in membership dues for the 1989 financial year should serve to strengthen this position.

Interest on the Society's cash balances is being maximised by using a cash management trust for all but very short term cash.

The new membership database computer programme that we had written has greatly

simplified the keeping of records and the sending of dues notices and receipts.

The cashbook accounts are kept by me using a spreadsheet and this has considerably simplified the accounting.

The new secretariat at the Chamber of Mines has proved to be efficient and cost effective. Paula Sinclair is to be congratulated on the way she has picked up a complex job and handles dues, correspondence, deposits, filing, helping publish Preview etc.

My thanks to the members of the outgoing Federal Executive for their friendship and advice over the year.

### Corporate Affairs Committee

by S.R. Greaves, Chairman

Opinions were sought from Simons & Baffsky, the ASEG solicitors, on two matters during the past year. The first was a confirmation of Directors and Members liabilities particularly in relation to numerous debts which may be incurred. Advice has been received that where there is no intent to defraud and all due care has been taken, criminal proceedings are unlikely to be taken against the Directors.

The second matter related to registration of the changes to the Articles of Association passed at the last Annual General Meeting. It was necessary to inform and receive approval of the changes from the Corporate Affairs Commission in New South Wales under Section 66 of the Companies Code. Changes to the Articles of Association cannot take effect until CAC approval has been obtained. Relevant documents have been submitted and after payment of a fee it is anticipated that the necessary approvals will be received promptly.

### Geophysical Activity Committee

by R. Henderson, Chairman

Following the poor response to a survey of the membership for statistics on activity in Australia, the Committee has continued to use published figures on seismic line kms as the main barometer of petroleum geophysics activity and a general knowledge of the commitments of airborne and ground contractors as an indicator for the hard-rock sector. The actual results are published in Preview from time to time.

Another continuing responsibility of the Committee has been to liaise with the SEG Geophysical Activity Committee to ensure their mailing list for Australia is adequate and up-to-date and to assist where possible in getting replies. Several lists of addresses have been sent to the SEG. They acknowledge that their coverage for Australia was inadequate before we got involved and to help improve it they have appointed your Chairman to serve on their Activities Committee (the only other foreign delegate is from Venezuela). We are also discussing with the SEG the need to make some changes to their questionnaire form to make the statistics on airborne costs more meaningful.

### Publications Committee

by T. Crabb, Chairman

Members of the Publications Committee for this year included:

|             |                  |
|-------------|------------------|
| Terry Crabb | Chairman         |
| Don Emerson | Editor           |
| Greg Street | Secretary        |
| Tim Pippett | Business Manager |

Graphic Services Pty Ltd continued as our printer this year and, as can be seen below, only managed to get out the two issues, Volume 18,4 and 19,3 during the period April 1988 through March 1989. Volume 19,3 was released 31 March, 1989 but we had yet to receive the invoice prior to the AGM.

| VOL | ISSUE | DATE        | RELEASED | #PAGES | COST\$    | COST/PAGE |
|-----|-------|-------------|----------|--------|-----------|-----------|
| 16  | 1-4   | 1985        | 1985-86  | 396    | 44,079.00 | \$111.31  |
| 17  | 1-4   | 1986        | 1986     | 217    | 16,728.00 | \$ 77.09  |
| 18  | 1-2   | Mar-June 87 | Feb 87   | 245    | 12,767.24 | \$ 52.11  |
| 18  | 3     | Sep 87      | Nov 87   | 107    | 9,122.72  | \$ 85.26  |
| 18  | 4     | Dec 87      | Jun 88   | 56     | 7,833.93  | \$139.89  |
| 19  | 1-2   | Mar-Jun 88  | Feb 88   | 400    | 36,437.39 | \$ 91.09  |
| 19  | 3     | Sep 88      | Mar 89   | 64     | ?         | ?         |
| 19  | 4     | Dec 88      | Jul 89   | ?      | ?         | ?         |

*The costs for Volumes 18 (Issues 3,4) and 19 have not been adjusted for advertising income.*

The performance of Graphic Services continues to be of concern. Delays in release of issues has resulted in a schedule requiring Volume 19,4, Volume 20,1 and Volumes 20,2-3 all to be printed and distributed prior to the Melbourne Conference in September. Other printer options are being investigated.

Brackett Secretariat's proposal to provide publishing services to the ASEG was formally accepted by the Executive in late August 1988. The backlog in advertising revenue collection was made an immediate priority and efforts were made to catch up with missing non-member subscribers.

I believe that "Exploration Geophysics" could be made self-funding but it will require:

- publishing with strict adherence to issue dates
- tighter invoicing and budgetary controls
- increasing advertising revenue by 100% from \$7,000 to \$14,000 per issue
- increasing non-member subscribers from 100 to 300
- more special publications
- appointment of assistant editors to help Don, especially with such special issues as Engineering Geophysics - Volume 20 Issue 1.

Don Emerson has once again agreed to stand as honorary Editor of Exploration Geophysics through 1989 and, on behalf of all ASEG members, I thank Don for his editorial efforts during 1988.

### **Honours and Awards Committee**

by L.N. Ingall, Chairman

Active members of the committee are:

Lindsay Ingall  
Barry Long  
Bill Peters

No conferences have been held since the last Annual General Meeting and there is little to report.

Our ASEG President, Eve Howell, received a letter dated 16 November, 1988 from the Chairman of the SEG Honours and Awards Committee requesting nominations, if any, by 31 December 1988 for the SEG Awards for 1989.

This tight timing precluded useful action by us on this request. However, looking ahead we prepared an article for this issue of "Preview". The article describes the various SEG Honours and Awards and advises our members of procedures required for nominations and the timing of submissions to be considered for the 1990 awards.

With regard to our own ASEG Honours and Awards, formal application forms for nominations are being finalised by Barry Long and Lindsay Ingall and will be sent shortly to State ASEG Branches. Nominations should be sent in well in advance of the forthcoming Melbourne Conference.

The status of the current accounts for the Grahame Sands and Laric Hawkins Memorial Funds as at 31 December 1988 is as follows:

#### **Laric Hawkins Memorial Fund**

Balance \$ 954.15

#### **Grahame Sands Award for Innovation in Applied Geoscience**

Balance \$28,400.50

### **Conference Advisory Committee**

by S. Mudge, Chairman

The Conference Advisory Committee (CAC) currently comprises the following people:

S. Mudge                      Chairman  
R. Nelson  
G. Street  
R. Henderson  
B. Long  
G. Steemson (Federal Executive Liaison)

### **CONFERENCE MATTERS**

#### **Adelaide '88 (Joint ASEG/SEG)**

A comprehensive report has not been received to date. An analysis of the accounts for the conference indicate that the financial loss of this event can probably be attributed to at least the following:

1. the necessity to move from a hotel facility to the large convention complex in order to house the expected 760-1000 delegation (646 delegates actually registered).
2. the expected number of overseas delegates failed to materialise.
3. despite an excellent exhibition, the largest held by the ASEG, profits from this were low.
4. expenditure on the social program and management costs were both well over budget.
5. the October '87 stock-market correction, but the effect of this is hard to gauge.

#### **Melbourne '89 (24-29 September 1989)**

There has been a change of chairmen with Phil Harman's move to Perth. The co-chairmen for the conference are now Tom Eadie and Hugh Rutter.

The Melbourne committee have been instructed by the ASEG that this event must be a financial success. The Society could be driven into bankruptcy if it



incurred another loss less than two years after the Adelaide '88 loss.

The Hilton Hotel in Melbourne has been selected for the event, however, available space has limited the exhibition to only 49 booths. (82 booths at Adelaide '88). The venue was selected on the basis of a 500 delegate conference and also to minimise financial overheads.

Efforts to attract a major sponsor, organisations such as Kodak, IBM, Toyota etc, have so far been unsuccessful. The search continues.

Delegate fees are to be finalised by late March, they were not available at the time of this report. All areas of cost reduction and profitability are being investigated to ensure that the event is a financial success as well as a technical success.

Technical paper abstracts are to be submitted by 1st April, 1989, for publication as an Abstracts Volume of Exploration Geophysics.



**Sydney '91**  
(17-22 February 1991)

The committee for the event has now been finalised. Co-chairmen are Tim Pippett and Wes Jamieson.

Conference venue is the Darling Harbour Convention Centre. The facility has been booked and, despite its large capacity (up to 3000 delegates!) options are open to the ASEG to commit to a smaller requirement (500 delegates).

A joint conference/exhibition with any one or more of Aus. IMM, PESA or Geol. Soc. is being investigated as is co-sponsorship with a South East Asian Geological Society(s). A joint event would help to increase conference numbers to, say, 1000 delegates as well as encourage closer professional and Society ties. Despite this, a 500 delegate ASEG meeting has been adopted by the Sydney committee for the purposes of early planning.

Conference Action have been appointed as the conference organiser. They were responsible for the successful ASEG Sydney '85 event. Budgets and publicity strategy are currently being formulated. First publicity will be at ASEG Melbourne '89 then SEG October '89 and EAEG May '90.

The next meeting of the Sydney '91 committee will be 1st May, 1989, at the Darling Harbour Convention Centre.

## **9th Aseg Conference & Technical Exhibition 1992**

Submissions were called from State Branches in August 1989, interested in hosting this event in September/October 1992. Submissions close in August 1989. The ACT and Queensland Branches have each indicated their desire to host this event. We are waiting for final submissions from these branches for evaluation by Federal Executive at Melbourne '89 (September 1989).

## **CAC MATTERS**

It is abundantly clear that the ASEG requires a Conference Guidelines manual for use by conference committees and State Branches contemplating hosting an ASEG Conference.

The manual would contain such vital information as timing of various activities during the leadup planning period of a conference and a summary of the wealth of experience now gained, and already documented from previous ASEG Conferences.

This project has suffered somewhat during the last six months because of my almost continual work-related travel. However, a draft has been made and will be circulated to CAC members for review during late April.

## **Technical Standards Committee**

by D.F. Pridmore, Chairman

### **1. ASEG FORMAT**

Graeme Pilkington visited the major aeromagnetic processing sites in New South Wales to discuss his revised code for generating files in ASEG format. At least one contractor was satisfied that extra computer time required to read and write data in the ASEG format was insignificant. However, contractors write data in "ASEG Format" using their own software and, in some cases, the formats are incorrect. Major radiometric processing contractors in Australia are being asked to provide Graeme with a sample data set for checking of their code.

It is hoped this matter can be cleared up by 29 June so that relevant Government bodies can be advised of the ASEG's recommendation for a standard reporting format.

2. Paul Wilkes was appointed Chairman of a Sub-Committee to investigate the feasibility of constructing radiometric calibration pads for airborne systems. Mr Wilkes will produce a final recommendation report within three weeks but

essentially his conclusions are the same as in his previous report.

3. Kitt Dampney was appointed a special consultant to the Technical Standards Committee on data standards.

## **Student & Academic Liaison**

by A. Mitchell, Chairman

### *The past year:*

The Committee members have been Brian Evans, Steve Hearn, Andy Mitchell and Lindsay Thomas.

The Committee has been inactive this year. With one exception, which was essentially a state concern, no matters have been referred to the Committee, despite the fact that a survey of geophysics schools throughout Australia has been conducted and moves are well under way for the setting up of the ASEG Foundation. The spacing of Conferences has also meant little work for the Committee in this area over the past year.

### *The coming year:*

The Committee needs to liaise with the organisers of the next conference to maximise opportunities for students to participate. Student paper sessions, poster papers, and the various possibilities for 'free' registrations need to be designed into the conference and publicised early. The timing of the conference will make attendance by Honours students difficult, since they will be busy completing projects.

There appear to be problems with relationships between ASEG and academics in some places, which undoubtedly does not help us get through to students. We must try to resolve these wherever possible.

We need to set up a complete list of all institutions in which geophysics (and geology?) are taught, with a contact for each. Such a list must already exist for the survey mentioned above to have been carried out, but it needs to be checked for completeness and maintained.

It may be instructive to take a census of students and to set up a bibliography of completed thesis topics for ASEG's information.

The Federal Executive may care to consider whether there is some merit in having the Chairman of the Committee resident in the same state as the Executive itself. This would enable the Chairman to attend meetings of the Executive, hence improving communication. Alternatively, the local committee representative might fruitfully be invited to attend all or relevant Executive meetings to the same end.

## **SEG PROFESSIONAL AFFAIRS COMMITTEE**

By Lindsay Ingall.

This Committee met on 31 October, 1988 in Anaheim, California during the SEG Annual Meeting. I attended the meeting as the ASEG representative. The paramount issue discussed concerned the ethics involved in viewing broker seismic data, which is a problem in North America.

The ASEG raised the issue to its members with an article by Eve Howell in 'Preview', Number 15 dated July-August 1988. The article presented the views of the Canadian Society of Exploration Geophysicists on the matter and asked our members and also companies for comment. The only response was from GSI.

Members of the ASEG Executive Committee concluded at its meeting on 26 October, 1988 that the problems in North America are not relevant to Australia because of very different ways of obtaining and operating licences and permits.

The SEG Professional Affairs Committee is to meet in Dallas on 4 May, 1989 and the topic of 'Data Ethics' is at the top of the agenda. After this meeting Gene Womack, the Chairman of the Professional Affairs Committee, will appear at the SEG Executive Meeting in Denver on 15-16 May 1989.

The SEG President-Elect, L. Decker Dawson, wrote to Gene Womack on 24 February, 1989 and stressed that the SEG must be careful on the 'Data Ethics' problem not to let employees think that geophysicists have an 'ethical' problem. He suggests that in this matter the use of the word 'misunderstanding' not 'ethics' is appropriate. He suggests that a general industry *misunderstanding* of procedures and responsibilities created situations that *invited* unethical behaviour.

We have been advised that Jack Bihm of the Denver Geological Society has prepared an article on the 'Data Ethics' issue for the April issue of The Leading Edge.

## SEG HONOURS AND AWARDS

By Lindsay Ingall

Each year the SEG Honours and Awards Committee welcomes nominations for the various SEG Honours and Awards from individual SEG members, and formal and informal groups within the SEG.



The deadline for receipt of nominations for the 1989 awards by the SEG Honours and Awards Committee was December 31, 1988. In anticipation of a request from the SEG late in 1989 for nominations for the 1990 awards we think it is appropriate at this time to give those ASEG members who are also SEG members a summary list of the SEG Honours and Awards for their consideration and possible action. Any nominations should be accompanied by supporting documentation.

### SEG AWARDS

The Maurice Ewing Medal shall be awarded from time to time to a person who, in the unanimous opinion of the Honours and Awards Committee and of the Executive Committee, is deserving of special recognition through having made major contributions to the advancement of the science and profession of exploration geophysics. The award of the Maurice Ewing Medal shall confer Honorary Membership on its recipients.

#### < < < HONORARY MEMBERSHIP > > >

Honorary membership shall be conferred upon persons who, in the unanimous opinion of the Honours and Awards Committee and the Executive Committee, have made a distinguished contribution, which warrants exceptional recognition, to exploration geophysics or a related field or to the advancement of the profession of exploration geophysics through service to the Society.

#### < VIRGIL KAUFFMAN GOLD MEDAL AWARD >

The Kauffman Gold Medal is awarded to a person who, in the opinion of the Honours and Awards Committee, has made an outstanding contribution to the advancement of the science of geophysical exploration as manifested during the previous five years. The contribution may be of a technical or a professional nature.

#### < < < REGINALD FESSENDEN AWARD > > >

The Reginald Fessenden Award is awarded to a person who has made a specific technical contribution to exploration geophysics, such as an invention or a theoretical or conceptual advancement, which in the opinion of the Honours and Awards Committee and the Executive Committee, merits special recognition.

#### < < < LIFE MEMBERSHIP > > >

Life Membership may be conferred on persons who have voluntarily rendered exceptionally meritorious service to the Society which, in the unanimous opinion of the Executive Committee, warrants recognition.

#### < < < SPECIAL COMMENDATION > > >

Established for the purpose of recognising and giving special commendation by the SEG to deserving persons outside the SEG for meritorious services to the nation and scientific community in furthering the earth sciences and professions.

#### < DISTINGUISHED ACHIEVEMENT AWARD >

The Distinguished Achievement Award shall be awarded from time to time to a company, institution or other organisation for a specific technical contribution or contributions that have, in the opinion of the Honours and Awards Committee and the Executive Committee, substantially advanced the science of exploration geophysics.

#### < < < ENTERPRISE AWARD > > >

The Enterprise Award was established to recognise the importance of individual enterprise to the economic vitality of our industry and shall be conferred from time to time on persons who in the unanimous opinion of the Honours and Awards Committee and the Executive Committee have demonstrated courage, ingenuity and achievement while risking their own resources and future in developing a product, service, organisation or activity which is recognised as a distinct and worthy contribution to the industry.



## ASEG MONOGRAPH SERIES

The Federal Executive has decided to commission a series of monographs primarily on aspects of geophysics as it is practised in Australia. These will be published by the ASEG in hard cover to form a valuable reference set. One or two special editors will be appointed for each volume to select the technical material and co-ordinate the production of the volume.

The membership is asked to advise the Executive of their suggestions for topics and special editors for the monograph series.

The following subject areas have been initially identified:

- History of Geophysics in Australia
- Hydrocarbon exploration case histories in Australia and South East Asia
- Transient EM interpretation
- Geological Interpretation of Airborne Geophysical Data

Whilst it is anticipated these volumes will be produced over a number of years, the first one or two will be commissioned before 1 July, 1989.

This is an opportunity for the geophysical exploration community in Australia to produce volumes of lasting significance for future generations of exploration geophysicists. Speak out!

## MELBOURNE '89

*By Tom Eadie, Co Chairman, Melbourne '89*

Preparations for the conference (24-28 September) continue with refereeing and editing of technical papers in full swing. A preliminary technical programme will come out in the next few weeks along with registration details and information on the social programme.

One of the social highlights will be the after dinner presentation by "Tangles" Max Walker. Lunch at the VFL Grand Final may also appeal to some of the more cultured delegates.

The trade exhibition will be a roaring success as always, with all spaces except one or two already sold.

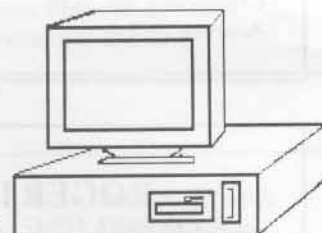
Registration fee for members will be \$420 with savings available through early registration (\$30), skipping lunches (\$50) or missing the conference dinner (\$30). Student registration fee will be kept to a low \$80, to encourage their attendance.

A final note is on the planned workshops which will be kept to a minimum. One, led by Gary Gassaway and Deborah Miles, is on "Amplitude Variations with Offset: Fundamentals and Case Histories". The other is organised by Don Pridmore and Tom Whiting and will focus on methods of magnetic interpretation. More information will be in the registration brochure.

## COMPUTING LANGUAGES

By Michael W. Asten

BHP-Utah Minerals International



Hewlett-Packard desktop computers (HP 9845/36, HP85/86, etc)

running variants of HP Technical Basic or Rocky Mountain Basic were popular instruments for geophysical and engineering field and office tasks in the last decade. IBM PC's, clones and portables have now taken this role, but there is a legacy of good software which in my experience does not readily translate into the well known IBM-type basics (eg. GW Basic, Turbo Basic and Quick Basic). An alternative language, True Basic, seems well suited to the task retaining the 'feel' of H.P. Basic in keywords, string and comment formats, but offering a high level compilable structured language with a library of scientific graphics routines which appear to support most of the maths and graphics features which made the H.P. language popular. A few advantages of True Basic relative to other Basics are unlimited array sizes, excellent string and string-array handling, matrix arithmetic, fast and flexible screen plotting functions (eg. definable colour palette in EGA/VGA graphics; multiple windows; area flood, keep and show; and picture modules). The Scientific Graphics package adds least-squares line fits, spline interpolation and curve-fitting plus a comprehensive range of linear, log, log-log, wire-frame and contour plotting formats. Another useful feature is availability of the language for MacIntosh, Amiga and Atari hardware.

One graphics feature conspicuously absent is access to drivers for external pen or dot-matrix



plotters; for hardcopy the user is limited to screen dumps although these are surprisingly good on a quality printer, especially in colour (eg, to the Hewlett Packard Paint-jet).

For those porting H.P. Basic Code into True Basic, a library of useful routines plus a conversion table for program keywords is available from the author:

Michael W. Asten  
BHP-Utah Minerals International  
P.O. Box 619  
Hawthorn VIC 3122  
Australia

True Basic is available from:

True Basic Inc.  
12 Commerce Ave  
West Lebanon,  
New Hampshire 03784  
USA

Cost is approximately US\$170 for True Basic plus Scientific graphics.



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## FINDINGS OF THE BMR REVIEW

*The following Overview outlines the findings of the BMR Review as were reported to the Minister for Resources by Mr A.J. Woods, AO in December 1988.*

There was considerable interest in the Review. The Bureau of Mineral Resources, Geology and Geophysics (BMR), as an institution, is well respected and has played an important role in Australia's development. 164 submissions were received and discussions were held in all capital cities with over 70 State, Northern Territory (NT), industry and other representatives. There was a clear message from these submissions and discussions that the emphasis in BMR's work program should be changed. The "new" emphasis should be on "state of the art" maps and data sets.

After consulting with the BMR Advisory Council, a contemporary charter has been drafted by the Council which reflects the changes believed to be necessary. The new charter stresses the geological survey role of BMR and emphasises that *geoscientific maps and data sets, supported where appropriate by published reports, should be regarded as the most important products of the geoscientific research and related studies undertaken by BMR.*

The Advisory Council should be strengthened and its role in the program formulation process upgraded. Increased industry and State/NT representation and formal endorsement of the program by the Council are recommended. The current BMR program should be critically reviewed by the Council in terms of its compatibility with the BMR's role, and reflecting appropriate priorities and balance.

Close collaboration with the States/NT is essential in maintaining and developing the geoscience knowledge base, particularly the results of systematic mapping which are vital to exploration. As a matter of priority a *National Geoscience Mapping Accord* should be developed by BMR and the State/NT Geological Surveys, to identify priority requirements and to provide a framework for collaboration and co-operation. Joint projects with the States/NT, CSIRO, industry and academic institutions are highly desirable for efficiency and for sharing the cost burden.

The Resource Assessment Division and the Geophysics Division should be abolished. All geoscientific resource assessment and non-observatory geophysical functions should be integrated into three re-organised program-based research divisions; onshore petroleum and

hydrogeology, minerals and land use, and marine geoscience. All other functions including management, databases, geophysical observatories, and technical support should be combined into a new Corporate Services and Information Division headed by a management professional.

BMR's resources should be concentrated on geoscience. Support services such as in-house capacity to carry out land seismic surveys, drilling and airborne surveys should be phased out and, in future, done by contract, taking every opportunity for 'add-on' projects with industry, resulting in significant budgetary savings.

Activities currently undertaken by the Resources Assessment Division which relate to industry statistics, economic and market analysis, and regulatory-type activities should be transferred to and rationalised with, the appropriate functional areas of the Department of Primary Industries and Energy.

Merit promotion should be introduced for all scientific, engineering and technical staff. Collaboration between BMR and the State/NT, industry and universities should be encouraged, particularly through staff exchanges. BMR should seek to attract recent graduates and consideration should be given to the re-introduction of a Cadet scheme.

There is scope for significant improvement in cost sharing and cost recovery through joint projects with the States/NT and industry, increased industry sponsorship, better marketing of products and provision of scientific services to industry where this is consistent with BMR's approved program.

If the Review's recommendations are acceptable it is suggested that external management consultants or a Departmental task force advise on the implementation of the recommended organisational and management changes and the matching of resources to the revised BMR program.

Substantial savings should accrue as a result of these proposals. While it is not possible to identify these savings with precision, pending the further management review, an indicative reduction of \$5 million in budget (through staff savings and transfer, equipment sales, program reform, contracting out, joint projects/cost sharing and productivity gains) and 100 staff (through reorganisation, rationalisation, attrition, early retirements and redundancies) are considered realistic targets. These are the first savings to pursue. A better organised, more efficient BMR will then provide scope for higher levels of cost recovery.

## SUMMARY OF RECOMMENDATIONS

### Recommendation 1

**BMR's future role and function be defined as follows:**

#### Role

- To improve the effectiveness of exploration for, and assessment of, Australia's petroleum, mineral and groundwater resources, and to contribute to land use planning and the mitigation of natural hazards, through the development of publicly available databases providing a comprehensive, integrated geoscientific understanding of the Australian continent, the Australian offshore area and the Australian Antarctic Territory.
- To facilitate the formulation and implementation of policies necessary for the effective management of petroleum and mineral resources by the timely provision of scientific and technical assessments, advice and information to Commonwealth Government, industry and the public.
- To contribute towards Australia's international policy objectives through provision of special national geoscientific capabilities and through participation in appropriate international multilateral and bilateral geoscientific programs.

#### Functions

BMR's functions as the principal Commonwealth Government geoscience agency, analogous to other national geological surveys, should be to:

1. carry out integrated regional geophysical, geological, geochemical, hydrogeological and tectonic surveys and research into, and syntheses of, the onshore basins, mineral provinces and the regolith of continental Australia, as a basis for exploration by the mineral and petroleum industries. *Geoscientific maps and data sets, supported where appropriate by published reports, should be regarded as the most important products of the geoscientific research and related studies undertaken by BMR;*
2. similarly, carry out major integrated offshore studies of the Australian continental margins and other strategic offshore areas;

3. assess the petroleum and mineral resource potential of Australia and its territories, its relevance to the total inventory of earth resources and to Australia's competitiveness in each commodity area and carry out scientific and technical research into Australia's geoscience potential to meet future world mineral and energy commodity requirements;
4. help establish and co-ordinate the national geoscientific database required for the consideration of land use issues;
5. be the national repository of data concerning the petroleum, mineral and groundwater resources of Australia and its territories and, as the national geoscience survey organisation, be a major focus for both national and international geoscience from an Australian perspective;
6. maintain geophysical observatories in Australia and Antarctica to monitor seismic, geomagnetic and other natural geophysical phenomena and to respond to specific Commonwealth Government requirements such as nuclear monitoring;
7. provide a national scientific capability in selected specialist areas, as required to support broad-ranging multidisciplinary research programs and collaboration with research personnel from other institutions (e.g., Commonwealth and State/NT agencies, resource companies and universities);
8. in all the above, co-operate and, where appropriate, collaborate with State/NT Government agencies, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and other geoscience organisations.

(Section 3.3)

### Recommendation 2

As a matter of priority BMR and the State/NT Geological Surveys, through the Chief Government Geologists' Conference, and in consultation with industry and the academic community, development a national geoscience mapping strategy (National Geoscience Mapping Accord) setting out

- an assessment of current and future national needs;
- priorities;

- goals, objectives and long range plans;
- mechanisms and procedures for monitoring and reviewing the status of maps, map coverage and mapping programs;
- the need for, and means of introducing new technology (ensuring maintenance of standards and compatibility of systems); and
- the resources currently available for this program, and those required to achieve desirable levels of activity.

(Section 4)

### **Recommendation 3**

- (a) Where appropriate, consideration be given to funding State/NT Government Departments to provide additional staff specifically to facilitate the extraction of geoscientific resource information from State/NT records and its provision to the national geoscience database.
- (b) Staff exchanges with State/NT Geological Surveys, and the outposting of some BMR staff to Survey Headquarters and regional offices during joint projects be encouraged.

(Section 4)

### **Recommendation 4**

Liaison arrangements in addition to those already in place between BMR and CSIRO, be established on a Divisional basis to co-ordinate research programs and to identify areas of collaboration and co-operation.

(Section 5.1)

### **Recommendation 5**

BMR's Antarctic program be reviewed by the Advisory Council in the light of the revised charter; extension of BMR's geoscience activities to meet specific DASETT objectives be funded by DASETT on a contract basis.

(Section 5.2)

### **Recommendation 6**

BMR continue to co-operate closely with Universities through joint and collaborative research where this contributes to BMR's program, and, wherever possible, BMR utilise specialist expertise and facilities available in Universities.

(Section 5.3)

### **Recommendation 7**

BMR program and priorities should better reflect the needs of industry by:

- placing greater emphasis on geoscience mapping and related research, in collaboration with the State/NT Geological Surveys and other geoscience organisations, and developing and maintaining a range of national geoscience databases;
- using the national geoscience knowledge base to provide regional syntheses, analyses and interpretations;
- applying the latest technology and concepts to data acquisition, management and interpretation;
- using commercial contractors wherever possible; and
- developing better communications with industry, especially by way of staff exchanges.

(Section 6)

### **Recommendation 8**

- (a) The Chairman of the Advisory Council and Director BMR liaise with the Minister for Resources in the formulation of the annual BMR program; and the Advisory Council formally endorse the program prior to its submission to the Minister for approval.
- (b) Industry representation on the Advisory Council be increased from 2 to 4, State/NT representation from 1 to 2, and the term of appointment of members be increased from the present 2 year period. Consideration be given to establishing a dedicated secretariat to service the council.
- (c) Review and evaluation procedures be developed further by BMR in consultation with the Advisory Council, to monitor the effectiveness and efficiency of the program; projects be formally reviewed against specified performance indicators on a regular basis.

(Section 7.4)

### **Recommendation 9**

The Advisory Council critically review the BMR program in terms of its relevance and balance, with a view to substantially reducing the number of individual projects by terminating or redirecting



projects which are inconsistent with the new charter or priorities.

(Section 7.5)

#### **Recommendation 10**

- (a) A specialist advisory group be formed to assist in identifying survey targets, establishing priorities and advising on appropriate technology for the Continental Margins Program; such a group might appropriately be a sub-committee of the BMR Advisory Council.
- (b) BMR's involvement in the Ocean Drilling Program be reviewed in the light of other priorities prior to any extension of the current 3 year commitment.

(Section 7.5)

#### **Recommendation 11**

- (a) BMR dispose of its in-house onshore seismic data acquisition capacity as soon as practicable and thereafter carry out seismic surveys by contract.
- (b) Increased collaboration and financial support be sought for the deep seismic profiling program, through ACORP and other bodies as appropriate.

(Section 7.5)

#### **Recommendation 12**

BMR dispose of its drill rigs and thereafter utilise contract drilling services.

(Section 7.5)

#### **Recommendation 13**

BMR dispose of its aircraft after completion of the current airborne reconnaissance geophysical program in 1991 with any future airborne data acquisition and processing being done by commercial contractors.

(Section 7.5)

#### **Recommendation 14**

- (a) The Geophysics Division be abolished and non-observatory geophysical functions be integrated into two land-based multidisciplinary research divisions oriented towards program objectives.
- (b) The Resource Assessment Division be abolished with geoscientific resource assessment transferred to the appropriate research divisions in BMR and rationalised,

and industry-related statistical/analytical/economic activities (approximately 30 positions) transferred to appropriate other areas of the Department.

- (c) All corporate management functions, geoscience computing and database functions, cartographic and engineering services, and geophysical observatory functions, be located in a new Corporate Services and Information Division headed by a professional manager.
- (d) An Observatories Branch be created within the Corporate Services and Information Division and the Advisory Council further review the observatory functions in the context of overall program priorities.

(Section 8.1)

#### **Recommendation 15**

- (a) All scientific, engineering, and technical staff in BMR be included in a system of merit promotion along the lines of the scheme operating in CSIRO. Staff assessment criteria should encourage the production of maps and data sets.
- (b) Recruitment guidelines be developed by BMR that maximise staffing flexibility while maintaining broadly based scientific effort. Where possible, specialist work be carried out on contract or by staff recruited on a fixed-term employment basis. As a matter of immediate priority, BMR should emphasise recruitment of recent graduate and staff with relevant industry experience, and consideration should be given to re-introduction of a Cadet scheme.
- (c) A policy on early retirement/redundancy retraining be put in place and early retirement/redundancy packages be offered where staff cannot be effectively redeployed to meet the requirements of BMR's program priorities.

(Section 8.2)

#### **Recommendation 16**

External management consultants be appointed or a Departmental task force be formed to develop management and operational procedures appropriate to BMR's new charter, advise on implementation of proposed organisational changes and match resources with program to identify optimum staffing levels.

(Section 9)

## Recommendation 17

Options for increasing cost recovery be pursued through:

- joint projects with the State/NT and industry.
- actively seeking external funding for research programs.
- incorporation of an appropriate cost recovery margin in the sale of printed, copied and published products.
- accelerated release of raw data.
- review of all publications and data releases to identify target markets and the full extent of costs involved; if necessary obtain professional marketing advice.
- development of appropriate cost sharing arrangements with the State/NT for operation of the seismological observatory network and review of pricing policy for provision of geophysical observatory data to end users.
- contracting out of excess 'Rig Seismic' capacity as appropriate.
- introduction of a Technical Briefing Fee for consultancy services to industry and where appropriate contracting out of specialist BMR services on a full cost recovery basis.
- designation of an officer to promote and co-ordinator cost recovery and marketing efforts; to be given priority in the new Corporate Services and Information Division.

(Section 10.3)

## Recommendation 18

Revenue retention arrangements from the provision of products and services and sale of surplus assets be developed so as to encourage improved levels of cost recovery.

(Section 10.4)

## ADVERTISING

ASEG members are invited to place their business cards in each issue for a period of 12 months (i.e. six issues) at \$50.00 per year. The cards will be carried on a 'Professional Directory' page of the newsletter. Enquiries regarding business cards should be to the Secretariat at the Chamber of Mines of W.A.

Advertising in PREVIEW is now totally separate from advertising in Exploration Geophysics.

## MEMBERSHIP

### NEW MEMBERS

We welcome new members who have joined the Society in the past months:

| Member            | Category  | State/Country |
|-------------------|-----------|---------------|
| MARK TAYLOR       | ACTIVE    | QLD           |
| B.E. DENT         | ACTIVE    | USA           |
| COLIN REEVES      | ACTIVE    | HOLLAND       |
| JAN HAERDERLE     | ASSOCIATE | WA            |
| VINCE ROBERTS     | ACTIVE    | WA            |
| BRENDA SHARP      | ASSOCIATE | NSW           |
| PAUL PREVEDOROS   | ACTIVE    | NSW           |
| JAMES KEMMIS      | ACTIVE    | VIC           |
| LAURA MCCCKAMMACK | ACTIVE    | USA           |
| FRANCES IENTILE   | ASSOCIATE | NSW           |
| MICHAEL ROACH     | STUDENT   | TAS           |
| RICHARD HILLIS    | ASSOCIATE | SA            |
| WAYNE STASINOWSKY | ACTIVE    | QLD           |
| ROLAND HILL       | STUDENT   | WA            |
| JOHN FRONING      | ACTIVE    | VIC           |
| KEITH POTTS       | ACTIVE    | SA            |

### LETTER TO THE EDITOR:

*Dear Membership Secretary*

*With reference to your comments in the last Preview on the Membership database, I would like to see it published annually, as it is most useful for keeping track of old mates. I also have no objection to selling the info, as any potential junk mail might be interesting!*

*Cheers*

*David Gamble, Victoria*

## MEMBERSHIP MOVES

### Moving to Victoria:

Mr Chris Kernick  
c/- Petrofina Exploration Australia  
Level 2  
476 St Kilda Road  
MELBOURNE VIC 3004

### Moving to Western Australia:

Mr Mike Brumby  
c/- Western Mining Corporation  
P.O. Box 1099  
WEST PERTH WA 6005

Mr Phil Harman  
c/- BHP Minerals  
P.O. Box 6062  
Hay Street East  
PERTH WA 6000

### Moving overseas:

Mr Martin Bayly to Sumatra

Mr Mick Micenko to Oklahoma

Mr Bruce Finlayson to Papua New Guinea

## CONFERENCE CALLS FOR PAPERS

### THE FIRST CONGRESS OF THE BRAZILIAN GEOPHYSICAL SOCIETY

Rio de Janeiro, Brazil  
**20-24 November 1989**  
*Abstracts due 30 April 1989*

### 59TH ANNUAL INTERNATIONAL SEG MEETING

"The Value of Geophysics in Exploration and Production"  
Dallas, U.S.A.  
**29 October - 2 November 1989**  
*Abstracts due 1 May 1989*

### DENVER GEOTECH '89

"Geoscientific Information Systems applied to Exploration and Research"  
Lakewood, Colorado, U.S.A.  
**23 - 26 September 1989**  
*Abstracts due 9 June 1989*

### INTERNATIONAL MEETING 'CATASTROPHES AND SOCIETY'

"Prevention of Natural Disasters"  
Madrid, Spain  
**24 - 26 October 1989**  
*Abstracts due 31 August 1989*

### PACIFIC RIM 90 CONGRESS

"Geology and Exploration of the Pacific Region"  
Gold Coast, Queensland, Australia  
**6 - 12 May 1990**

### THIRD INTERNATIONAL ARCHAEOAN SYMPOSIUM

Perth, Western Australia  
**17 - 21 September 1990**

Note: For further information regarding these conferences please contact Paula Sinclair on (09) 325 2955