

# Secretary's Report

April 1977

## Membership

Membership of the Association as of March 30th, 1977 is:

Honorary Members and Patron	8
Life Members	4
Retired Members	50
Fellows	1,717
Associates	<u>865</u>
	2,644
Corporate Members	<u>87</u>
<b>Total</b>	<b>2,731</b>

The growth in membership over the period 1947-1977 is shown in Figure 1. The geographic distribution of membership (Fellows, Associates and Corporates) is listed below. Data including the distribution of all Membership of the Association are presented in Figure 4

Newfoundland	83
Nova Scotia	90
New Brunswick	46
Quebec	264
Ontario	1,050
Manitoba	73
Saskatchewan	56
Alberta	315
British Columbia	409
NWT and Yukon	35
Prince Edward Island	2
United States	187
Australia-New Zealand	21
South and Central America	15
Africa and Asia	35
Europe	<u>50</u>
<b>Total</b>	<b>2,731</b>

The 180 members elected since May 20, 1976 are as follows:

### Fellows

Allan, J. R.	Henley, H. W.
Amos, A. C.	Hilchey, G. R.
Bennett, R. W.	Holmes, S. W.
Bucknell, W. R.	Hunt, D. S.
Cameron, D. M.	James, H. L.
Chataway, R. T.	Jessop, A. M.
Church, J. R.	Kimberley, M. M.
Clark, T.	Klewshuk, P.
Cook, D. G.	Larkin, D. B.
Crocket, J. H.	Leech, A. V.
Davis, G. A.	Lefebvre, J. J. M.
Dean, P. M.	Luckman, B. H.
Dompierre, F.	Ludvigsen, R.
Edmunds, F. R.	Lyll, H. B.
Evans, M. E.	MacDonald, W. D.
Fiesinger, D.	MacKenzie, D. B.
Flanagan, J. T.	May, J. L.
Freeze, A. C.	Milian, S. M.
Gabert, G. M.	Munday, R. J.
Gardner, M. G.	McCutcheon, S. R.
Geldsetzer, H. H. J.	McIlreath, I. A.
Handfield, R. C.	McNutt, J. A.
Harley, D. N.	Naert, K. A.
Hatchers, R. D.	Ojakangas, R. W.
	Palmer, H. C.

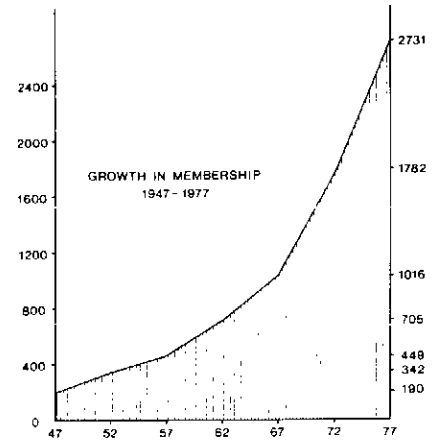


Figure 1.

Graph illustrating growth in the Association's membership over the period of 1947 to 1977

Park, I. G.	Skevington, D.
Pavlopoulos, A.	Smyth, R.
Pullen, J. R.	Snajdr, P.
Ramaekers, P.	Spector, A.
Rampton, V. N.	Stollery, A. G.
Ree, L. E.	Storoniak, A. M.
Rivera, R. A.	Sullivan, J. R.
Rochester, M. G.	Van Everdingen, R. O.
Ronaghan, R. J.	Venugopal, D. V.
Routledge, R. E.	Walmsley, M. E.
Ryback-Hardy, V. P.	Watts, S. H.
Hyder, J. M.	Westerby, G.
Sarjeant, W. A. S.	Yarrow, E. W.

### Associates

Andriashuk, L. D.	Ernsting, J.
Aspler, L.	Farley, R.
Banks, C. S.	Fraser, J. Z.
Barclay, J. E.	Frishman, D.
Barrett, K. R.	Fuller, E. A.
Beale, R. L.	Gann, P.
Beck, P.	Gicss, J. P.
Bickford, C. L.	Grard, C. K.
Bouchard, L. P. M.	Gordanier, W. D.
Bourdreault, A. P.	Grabs, S. F. E.
Bowles, E. G.	Grunsky, E. C.
Boyd, W. F.	Hall, B. V.
Brophy, J. A.	Hamblin, A. P.
Cameron, K. C.	Harris, R. D.
Campling, N. R.	Hauseux, M. A.
Cann, R. M.	Hill, J. R.
Carvalho, I. G.	Ho, R. W. K.
Ceroici, W. J.	Howes, D. E.
Chan, A. K. F.	Hunter, D. R.
Cheel, R. J.	Hurdle, E.
Chough, S. K.	Isherwood, A. E.
Clark, A. J.	Jilson, G. A.
Clattenburg, B. C.	Kennedy, L. A.
Costa, U. R.	Koster, E. H.
Crowe, A.	Koskoff, J.
Dakin, R. A.	Krause, D. W.
Donovan, J. J.	Kuntz, M. G.
Douglas, C.	Kusmirski, R. T.
English, P. J.	LeGallis, C. J.

Levesque, R. J.	Robinson, S. D.
Lowe, Y. S.	Rottenfusser, B. A.
MacDonald, C. A.	Rusk, M. D.
Machin, W. D.	Sacks, E. J.
Maurice, P.	Scaman, A. A.
Michel, F. A.	Sharpe, G. C.
Monachello, D. A.	Shaw, D. R.
Morel, R.	Shaw, S. E.
Morgenstern, D. C.	Stouge, S.
Morris, E.	Thompson, D. L.
Murphy, L. J.	Thompson, L. K.
Mussieux, R. A.	Travis, M. S.
McGuigan, P. J.	Truscott, M. G.
McKellar, R. L.	Tsagalidis, A.
Nguyen, T. I.	Van Denvckom, R. P.
Pattison, A. M.	Van Thournout, F. J. L. A.
Percival, J. A.	Verley, C. G.
Pigage, L. C.	Vinklers, J.
Proudfoot, D. N.	Vold, T.
Rayner, N. W.	Wantless, P. H.
Ridley, K. J. D.	Watson, K. W.
Rivern, G.	Wells, G. S.
Robertson, D.	Young, R. V.
Robertson, K. A.	

**Transfer from Associate to Fellow**

Amback, H.  
Cooper, A. J.  
Downing, B. W.  
Goudbout, L. J.  
Huxhold, P.  
Jackson, R. E.  
Karvinen, W. O.  
Muir, J. E.  
Neelands, J. T.  
Toews, F. H.  
Waddington, D. H.

An additional 145 applications for membership plus 38 applications for transfer are presently being processed by the Secretary's office. Adjustments in the total membership resulted from the following

Resigned	37
Deceased	5

**Resigned**

Arnold, R. E.	Minatidis, D. G.
Banninger, C. J.	Oja, R. V.
Brereton, W. E.	Patten, B. W.
Brown, R. S.	Payette, F.
Burrowes, O. G.	Pickens, J. F.
Conlin, B.	Pinch, M. C.
Dalrymple, R. W.	Renwick, G. K.
Gorniley, G. P.	Runkle, D. E.
Grant, D. R.	Schmidt, R. C.
Griffith, J. W. D.	Serra, S.
Hadley, D. G.	Stoeterau, J. A.
Harding, S. R. L.	Sutton, J. S.
Hentley, R. W.	Thorn, G. D.
Hodges, L. T.	Trenholme, L. S.
Holland, S. S.	Wasylyk, D. G.
Keyte, G. M.	Waterhouse, J. B.
Lewis, P. F.	Watt, A. K.
Mauffette, P.	
McGrath, G. F.	
McKee, E. B.	

**It is with regret that the death of the following members must be recorded:**

**Deceased**

Hewitt, D. F.  
Hopkins, O. B.  
MacDonald, B. I.  
MacKenzie, I. D.  
Martin, W. C.

**The following members were suspended for non-payment of dues:**

**Fellows**

Ashton, A. S.	Knight, C. J.
Benoit, P.	Knowles, D. M.
Bertrand, C. M.	Kranck, S. H.
Bik, M. J.	Magnusson, D. H.
Clark, A. R.	Moore, F. M.
Claveau, J.	McCartney, W. D.
Cranstone, D. A.	Nevin, A. E.
De Bretzoi, P. J.	Pada, B. V.
Donovan, P. R.	Patterson, A. M.
Erick, D. E.	Peach, P. A.
Fisher, J. W.	Pearse, G. H. K.
Francken, R. B.	Pilcher, S. H.
Gallup, W. B.	Price, R. L.
Gifford, R. G.	Richards, G. G.
Goodman, R. J.	Saenz de S. Maria, F.
Graves, A. C.	Sylvester, G. C.
Harder, E. C.	Syme, J. A.
Hoadley, J. W.	Ten Brink, N. W.
Huff, G. E.	Usher, J. L.
Johnson, A. E.	Vamos, P. J.
Juillard, J. D.	Vellet, V.
Khan, A. A.	Young, W. L.

**Associates**

Atkins, W. N.	Neeboda, J. C.
Atkinson, J. R.	Neufeldt, T. W.
Barabe, J. P.	Openshaw, R. E.
Crow, T. L.	Otton, J. K.
Darlington, R.	Paley, C. M.
Dingee, C. K.	Perry, R. J.
Falloon, J. S.	Raudsepp, J. J.
Forster, C. N.	Ray, D. G.
French, V. A.	Smith, H. R.
Fustos, A.	Smyth, W. R.
Glenn, J. R.	Stirling, C. J.
Harivel, C. P.	Thomson, G. R.
Hibbard, J.	Tomlinson, M. G.
Johnson, A. G.	Trudeau, M.
Kean, B. F.	Whelan, K.
Leger, G.	Witney, J. W.
	Wilkins, R. G.
	Wind, G.

**Logan Medal**

The 1976 recipient of the Logan Medal was R. J. W. Douglas of the Geological Survey of Canada. Paul M. Kavanagh (President) cited the many contributions made by Dr. Douglas in the advancement of the geosciences in Canada. His early work on the stratigraphy and geological structure of the Foothills and Front Ranges of the Rocky Mountains provided the conceptual framework upon which much of the subsequent exploration for petroleum and natural gas has been based.

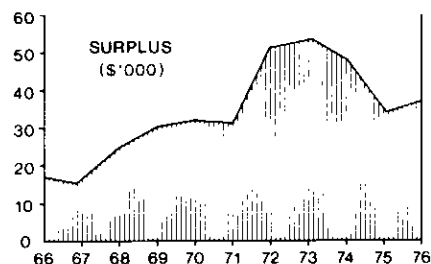
As a result of his personal contributions and scientific leadership in Operation MacKenzie, a large team from the Geological Survey of Canada was able to outline the basic stratigraphic framework and structural evolution of a large part of the MacKenzie Mountains and adjacent portions of the western Canadian sedimentary basin. As scientific editor of "Geology and Economic Minerals of Canada" published in 1970, Dr. Douglas was responsible for the organization, concepts and interpretations of the geology and mineral resources of Canada. R. J. Douglas has become a world leader in portraying the tectonic evolution of the lithosphere, and many of the tectonic and structural elements outlined on Canadian Geological maps have resulted from leads suggested by him to his colleagues.

**Past-President's Medal**

M. J. Keen (Past-President) awarded the Past-President's Medal to Dr. Harold Williams of Memorial University, Newfoundland in recognition of his contributions to geology. Dr. Williams is well established as the leading authority on Canadian Appalachian Geology with a knowledge of other parts of the orogen which has enabled him to place local relationships in their broad regional setting. His exceptional capabilities as a stratigrapher and tectonic geologist, and his remarkable success in synthesising and analysing data from a variety of other sub-disciplines, has made him one of the outstanding geologists in the Atlantic region. He is probably the foremost authority on transported ophiolites and their underlying aureoles, and has illustrated their structural relationships in the early Paleozoic eastern margin of North America. Dr. Williams is now recognized as one of the international experts on such oceanic rocks, and is the author of more than 60 publications.

**Finances**

The financial statement, for the year ending December 31st, 1976 prepared by the Association's auditors, was circulated to all Fellows in late March 1977. The Association realised a slight operating surplus of \$2,910, during 1976 compared with deficits of \$13,894 and \$5,751, in 1975 and 1974 respectively (Fig. 2). The substantial increase



**Figure 2.** Members' equity surplus (in thousands of dollars) at year end for the period 1966-1976

in income provided by members' fees, sales of publications and advertising revenues was almost completely balanced by increased expenditures, particularly in respect to the Association's publications, the increased cost of the Canadian Journal of Earth Sciences, and postage and handling charges.

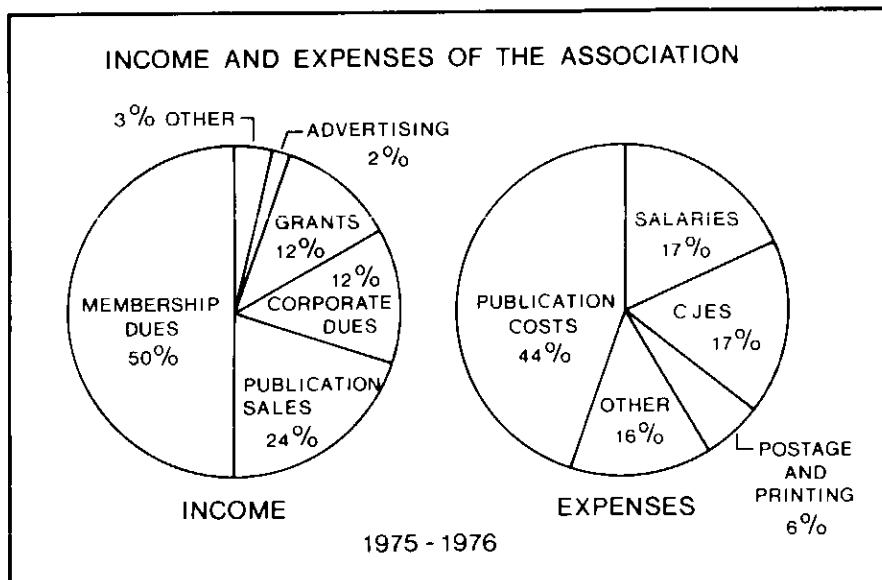
Because of fluctuations in any given financial year in the income and expenditure of the Association, Figure 3 illustrates the averaged year end figures for 1975 and 1976. There are no major changes in this income diagram when compared with the 1973-74 diagram, with the exception of Membership dues (up by 8%). Grants toward the Association's publications remain constant at 12 per cent of the income, although this does represent a substantial increase in dollar sums. Corporate dues are down by two per cent and publication sales are up by one per cent. Advertising is included as a new category, since advertising revenues increased by almost 1000 per cent between 1974 and 1976. In real dollar terms the sale of publications, particularly the successful Special Papers #13 and #14, brought in nearly \$27,000, representing an increase of over \$10,500 from 1975.

Higher expenditures practically negated the financial gains made by increased membership dues. The biggest single item was the amount paid for the publication of Special Paper #14, closely followed by the higher cost of publication of *Geoscience Canada*. Handling and postage charges for the distribution of the Association's publications increased substantially between 1975 and 1976. Postage costs alone went up by 54 per cent over this period and new rates announced by the postal service will cause further concern. The new subscription price for the Canadian Journal of Earth Sciences is not reflected in the year end figures since the rate will first be seen in 1977.

In the spring of 1976 the Secretary-Treasurer was informed that the Association was to receive a sum (believed to be in excess of \$100,000) which was the residue of the estate of Howard Street Robinson, the former chief geologist of McIntyre Mines. These assets are currently being transferred from the United States to a trust account in Waterloo. A Committee is being formed to handle the disbursement of the interest from this generous bequest.

#### Committee Activities

The business of the Association was conducted at four Council meetings held on May 21st, 1976, in Edmonton, October 8th, 1976 in Montreal, February 4th, 1977 in Vancouver and on April 24th, 1977 in Vancouver. The activities of the respective committees of the Association are summarized below.



**Figure 3.**  
*Income and expenses of the Association averaged for the years 1975 and 1976.*

The *Editorial Committee*, under the chairmanship of W. G. E. Caldwell, met three times during the past year - in Edmonton, May, 1976, Montreal, October, 1976, and in Vancouver, February, 1977.

*Geoscience Canada*, under the editorship of G. V. Middleton, has appeared at regular intervals throughout the year. The high standards of the magazine have been maintained; circulation has been widened slightly and revenue from advertising has increased. Volume 3, Number 3 contained a bonus in the form of the proceedings of the Great Lakes Basin Symposium, publication of which was made possible by the efforts of Dr. Peter Sly of the Canada Center for Inland Waters and the generosity of Environment Canada.

After some mishaps resulting in a sporadic distribution in 1976, the Association's news magazine, *Geolog*, in the capable hands of the new editor, G. L. Williams, has been restored to four regular issues per year. Correspondents for *Geolog* have been established in most geological institutions across the country. The Editorial Committee hopes that these correspondents will send appropriate news items to the editor on a regular basis.

Special Paper #14, *Metallogeny and Plate Tectonics*, edited by D. F. Strong, was published in the late summer of 1976; Special Paper #15, *Conodont Paleogeology*, edited by C. R. Barnes, was published in November, 1976, and it is anticipated that Special Paper #16, *Volcanic Regimes in Canada*, will be published by August, 1977. Special papers are now being produced in a standard format.

Sales of Special Paper #13, published in the fall of 1975, and of Special Papers #14 and #15 continue at a brisk pace.

Information Circular 3, *Sources of Free Materials for Canadian Earth Science Teachers and Students* by Jon Rau, chairman of the Association's Education Committee, was released for distribution in March, 1977. The largest and most attractive of the information circulars yet produced, this inexpensive compilation should prove particularly beneficial to school teachers and students.

The Editorial Committee and Council approved a sale of older publications at substantially reduced rates during early 1977, the purpose was to reduce storage space and fees that must be paid for this space. To date, the results have been encouraging.

The *Finance Committee* under the guidance of Stan Pedley discussed various methods of keeping the rising costs of the Association under control. These included approaches to the Federal Government in an attempt to keep mailing costs down and methods of improving the tax status of the Association. Although the preliminary results have not been encouraging, negotiations are still underway.

The *Membership Committee* comprising J. H. Remick (Chairman), A. T. Avison, D. H. James, G. C. Milligan and C. R. Steick reviewed some 262 membership forms during the year. Of these 180 members were elected with 11 transfers, and the remaining application forms are currently being processed. Proportionately more Associates were elected to membership in the year 1976-77 than in the preceding year.

A revised edition of the Membership List Booklet, printed on a larger page size and updated to October 1, 1976, was distributed to the membership in November, 1976. The current geographical distribution of members is illustrated in Figures 4 and 5.

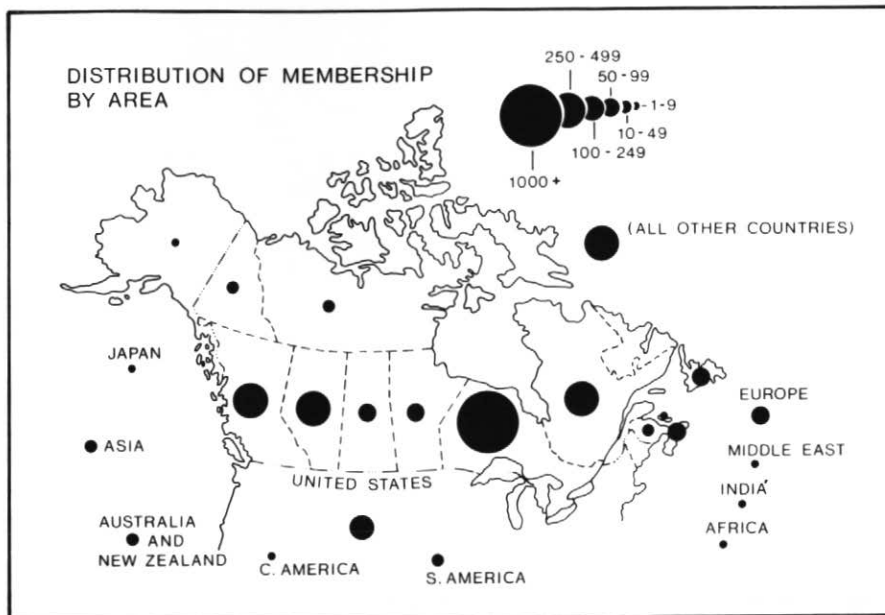
A bilingual Membership Certificate is now being prepared. Copies should be available for both Fellows and Associates by early autumn 1977. Since the number of members joining the Association has slowed considerably in the last few years a new membership drive was started early in 1977. It is hoped that this will encourage qualified earth scientists to become members of the Association in its 30th anniversary year.

The Association is currently preparing a bilingual issue of the Constitution Bylaws Booklet.

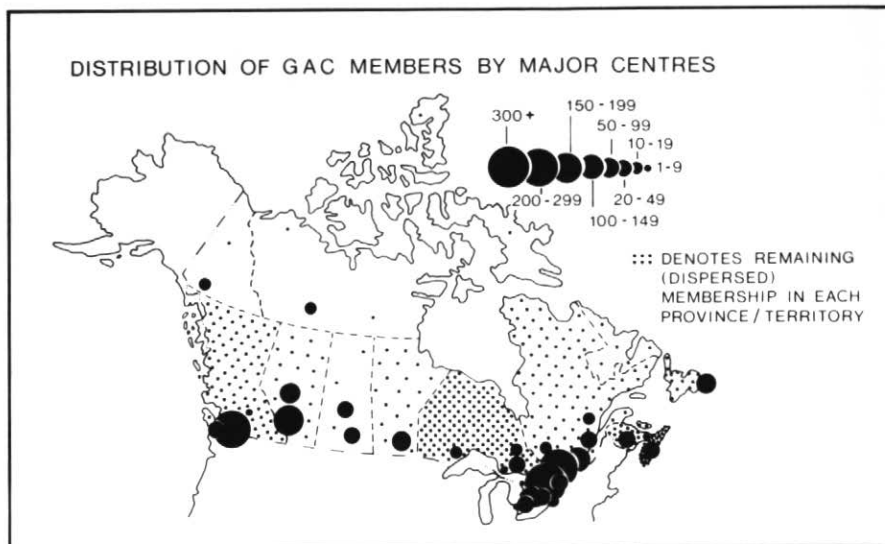
The *Programme Committee*, made up of J. W. Kramers (Chairman), M. J. Kennedy, C. R. Barnes, H. A. K. Charlesworth, V. F. Hollister, J. J. Fawcett, R. W. Macqueen and P. Bayliss (MAC Representative) organized the second GAC National Lecture Tour by Roger Walker, winner of the 1975 GAC Past-President's Medal. During November 1976, Roger spoke on "Is the world made entirely of turbidites? - a review of deep water clastic sedimentation" to all GAC Sections (St. John's, Winnipeg, Edmonton and Vancouver) and the Atlantic Geoscience Society in Halifax (a GAC affiliated society). Roger's talks were well attended and the subject of considerable discussion. The National Lecture Tour will be continued this fall (1977) with Hank Williams, another GAC Past President's Medalist, whose subject will be "The Appalachian Orogen: A Model for Paleozoic Plate Tectonics". In addition to visiting all GAC Sections and the Affiliated Society in Halifax, Hank Williams will also make stops in Montreal, Ottawa and Toronto, to give GAC members in central Canada an opportunity to hear his talk.

The *Projects Committee*, under the chairmanship of Jean-Yves Chagnon is currently evaluating a Group Insurance and Savings plan to be offered to GAC members. A questionnaire was published in the 1977 Winter issue (v. 6 pt.1) of *Geolog* requesting feedback on the interests and needs of the membership. According to the response the Committee hopes to be able to tailor a plan for the indicated needs of Fellows and Associates. It is hoped that a unified proposal can be made to various insurance companies since it is impossible to objectively evaluate the wide range of benefits offered by the respective companies.

The Association has offered a Group Life Insurance plan (administered by the North American Life Assurance Company) to its membership since 1963. A new brochure, outlining this plan, was mailed to the membership in early April, 1977.



**Figure 4.**  
*Distribution of G.A.C. membership on a worldwide basis.*



**Figure 5.**  
*Distribution of G.A.C. Canadian members by major centres*

The *Status of Women Committee*, chaired by Barbara Mioduszewska has continued to stress the positive aspects of women in the geosciences at a number of national and international meetings. A report on women in the oil industry will be published by this summer in the CSPG Bulletin. Representatives from the British Columbia Government were present at a meeting on the role of women in the mining industry held in mid-April in Vancouver. Talks with this same theme have been presented at a number of university women's clubs, as well as at

Denver and the University of British Columbia.

The *Education Committee* under the chairmanship of Jon L. Rau has completed the preparation of Information Circular #3 on *Sources of Free Materials for Canadian Earth Science Teachers and Students*. The committee is actively trying to find methods of promoting the study of the earth sciences among high school teachers.

Jon is currently working on the publication of three new numbers of the educational series, *Adventures in Earth Sciences*.

Mr P Channen, Mr D J Heidbrecht, Mr R B Bohnet and Mr J MacDonald won the GAC awards at the 1976 National Science Fair in Brandon, Manitoba. The judges acting on behalf of the Association were Dr S Watts (University of Brandon) and Dr D L Trueman, (University of Manitoba). The prizes were awarded by Dr. C. C. Bristol, Head of the Geology Department at Brandon University. The winning projects were entitled 'Wave Amplitude and Velocity Electromechanical Simulator', P. Channen; 'Continental Drift Theory', D J Heidbrecht and R B Bohnet, 'Geology and the Identification of Minerals', J. MacDonald.

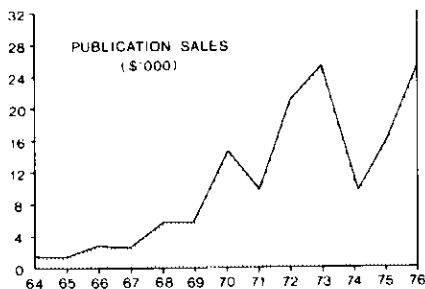
**Other Business**

The Sections of the Association are continuing to have active meetings and field trips which have been reported in *Geolog (Cordilleran Section, 1976, v 5, pts 3/4, p. 8 and 1977, v 6, pt. 1, p 12 Winnipeg Section: 1976 v 5 pt 1, p 10, 1977, v 6 pt 1, p 16 Newfoundland Section: 1976, v 5, pt 2, p 11, 1977 v 6 pt 1, p 13-16 The Atlantic Geoscience Society 1976, v 5, pt 2, p. 12: 1976 v 5, pts. 3/4, p 8, and 1977, v 6, pt 1, p 16, 17). The Edmonton Geological Society acted as one of the local hosts for the highly successful 1976 annual meeting, and news of the Section is given in *Geolog* 1976, v 5, pt 2, p 11*

Division meetings have also been reported in *Geolog* 1976, v 5, pt. 2, p 9, 10 1976, v 5 pts 3, 4, p. 6, 7, and 1977 v 6 pt 1, p 12

**Publications**

As mentioned in the financial statement (above) publication sales have increased substantially during 1976-77 and have certainly helped to offset a financial deficit. The increase in publication revenues, illustrated in Figure 6, is largely due to the sales of two successful Special Papers, #13 and #14, and to a lesser degree by the sale of old publications authorized by Council in late 1976. Publication sales should continue to increase with the appearance of Special Paper #15 (*Conodont Paleoeecology*) and Information Circular #3, which were released for sale after the close of the financial year.



**Figure 6.**  
Publication sales (in thousands of dollars) from 1964-1976

The sale of publications from May 1, 1976 to March 30th 1977 and stocks on hand are as follows

	Copies Sold	Copies on Hand
<i>Proceedings</i>		
Vol 11	38	0
Vol 16	16	0
Vol 19	33	0
Vol 21	35	180
Vol 22	40	145
Vol 23	34	149
Vol 24 (I)	29	53
Vol 24 (II)	27	8
Vol 25	30	263
<i>Special Papers</i>		
# 1	4	4
# 5	28	0
# 8	390	1,612
# 9	27	63
#10	43	91
#11	309	765
#12	194	1,104
#13	259	1,127
#14	794	1,320
#15	297	696
<i>Geoscience Canada</i>		
Vol 1 #1	17	232
Vol 1 #2	19	37
Vol 1 #3	18	379
Vol 1 #4	18	184
Vol 2 #1	0	0
Vol 2 #2	7	104
Vol 2 #3	0	0
Vol 2 #4	10	249
Vol 3 #1	798	44
Vol 3 #2	3,047	358
Vol 3 #3	3,236	200
Vol 3 #4	3,092	308
Vol 4 #1	2,812	575
<i>Information Circulars</i>		
#1		272
#2		1,004
#3		700
<i>Guidebooks</i>		
67		337
70 #4		0
#5		32
#6		26
#7		0

Respectfully submitted  
Alan V Morgan  
Department of Earth Sciences  
University of Waterloo  
Waterloo, Ontario

**List of members attending the Business Meeting held at Hyatt Regency Hotel, Vancouver, British Columbia, Monday April 25, 1977.**

N J Allman	
E C Appleyard	
R L Armstrong	
C R Barnes	
J. Beland	
L G Berry	
W G E Caldwell	
F H A Campbell	
J L Caty	
E H Chown	
E A Christiansen	
L A Clark	
A L deCarle	
D R Derry	
J A Donaldson	
K C Fahrni	
J J Fawcett	
P Gaston	
W Gibbins	
R S Harrison	
G G L Henderson	
W W Hutchinson	
V Hollister	
D E Jardine	
P M Kavanagh	
M J Keen	
M J Kennedy	
A F King	
J Kramers	
J Lajoie	
F Livingston	
R W Macquenn	
M Marchand	
H G Miller	
B M Mioduszewska	
A V Morgan	
H Morris	
E R W Neale	
B Norford	
S J Podley	
J L Rau	
K Ricker	
D A StOnge	
D F Sangster	
D Shaw	
B G Stone	
D F Stott	
D W Strangway	
A Sutherland Brown	
B Taylor	
M Vallée	
R H Wallis	
H V Warren	
J O Wheeler	
Total number of members attending the Meeting	52
Total number of members represented by proxy	631
Total	683