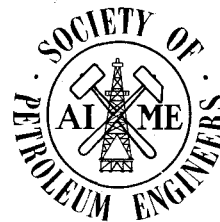
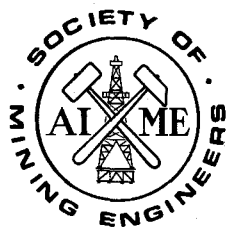
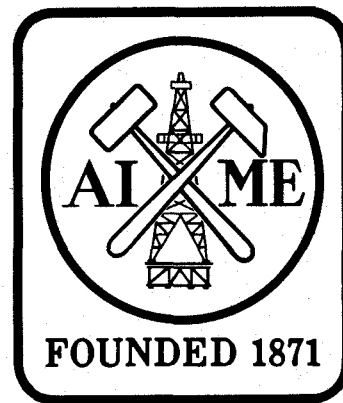


# AIME Official Annual Review/1983



AMERICAN INSTITUTE OF MINING, METALLURGICAL,  
AND PETROLEUM ENGINEERS, INC.

AIME  
OFFICIAL ANNUAL REVIEW  
1983

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AMERICAN INSTITUTE OF MINING, METALLURGICAL,  
AND PETROLEUM ENGINEERS, INC.

REPORT OF THE  
AIME EXECUTIVE DIRECTOR

The year 1983 was a period of continuing transition for AIME. Under the able leadership of President Edward E. Runyan, substantial progress was made in fully developing the decentralized structure toward which the Institute has been working for the past few years. This year of transition was also marked by turnover in the position of the AIME Executive Director.

Two actions taken at the AIME Board of Directors meeting on October 26, 1983, are of importance to the future of the Institute. The Board voted its intent to revise the AIME Bylaws to provide for separate incorporation of the Constituent Societies. These Bylaw changes will be considered for final approval at the February 28, 1984, meeting of the Board. If approved, it is anticipated that each Constituent Society will separately incorporate, become financially independent, and agree to support and promote the AIME Corporation.

At the October, 1983, meeting the AIME Board also voted to accept the report of the ad hoc Committee on AIME After Transition and to endorse the committee's recommendations as a framework for the future operations of AIME. Anticipating separate incorporation of the Constituent Societies, the committee set forth recommendations on a structure and mode of operation which will permit AIME to serve as an effective umbrella organization for professionals working in the extractive minerals industry. The essential first step in implementing these recommendations is now underway: the preparation of a set of Bylaws to deal with the governance of the Institute in its revised structure.

As is detailed in the reports of the Constituent Society Executive Directors, the extractive industries confronted a less than ideal economic climate in 1983 which, in some cases, had a negative impact on the membership and financial posture of the Societies. Despite the challenging times, AIME-wide membership increased by 5.9% to a year-end total of 98,445. Concurrently, total financial resources of the Institute increased by 6.2%, ending the year at over \$20,000,000.

The Institute is indebted to President Runyan for his dedication and contributions throughout the year, and to the Institute and Constituent Society Boards of Directors and many thousands of members who worked on committees, meetings, presented papers and served in the general operation of the Institute. I am genuinely pleased to have been given the opportunity to work with the dedicated professionals who comprise the AIME family, and look forward to the challenges which lie ahead.

Respectfully submitted,



Robert H. Marcrum  
Executive Director

AMERICAN INSTITUTE OF MINING, METALLURGICAL,  
AND PETROLEUM ENGINEERS, INC.

RECORD OF HONORS AND AWARDS PRESENTED BY AIME IN 1983

The following Honors and Awards were presented by AIME in 1983, in addition to those presented by the Constituent Societies and described elsewhere in this Annual Review:

HONORARY MEMBERSHIP was conferred upon

John F. Elliott, "For his leadership and devotion to the education of metallurgists and for his many varied and notable contributions to the art and science of iron and steelmaking."

H. Mark Krause, Jr., "For more than forty years of dedicated service to the Institute, for inspirational motivation of young engineers, and for achievements in furthering conservation of the nation's crude oil reserves."

Earl R. Parker, "For so many outstanding contributions to the understanding of flow and fracture in metals and materials, to the profession and practice of metallurgy, and the education of metallurgists."

William N. Poundstone, "For his creative approach to mining problems particularly in the Coal Mining Industry and his many significant contributions to mining technology."

The HOOVER MEDAL to Michel T. Halbouty, "Distinguished geologist and petroleum engineer; internationally recognized for his scientific and engineering ability in petroleum exploration; a leader and activist in community, civic, governmental, and university affairs; Chairman of the President's Energy Policy Advisory Task Force and Leader of the Transition Team on Energy."

The JAMES DOUGLAS GOLD MEDAL to Robert I. Jaffee, "In recognition of his many fundamental and practical contributions to nonferrous metallurgy, especially the physical metallurgy of titanium and its alloys."

The BENJAMIN F. FAIRLESS AWARD to Gerald R. Heffernan, "For his foresight in recognizing new trends in steelmaking and leadership in incorporating new design features and technology in steel plants built under his direction."

The HAL WILLIAMS HARDINGE AWARD to Stanley J. Lefond, "Editor-in-Chief of Industrial Minerals and Rocks, fourth and fifth editions. Author of Handbook of World Salt Resources, and other industrial mineral publications."

The ANTHONY F. LUCAS GOLD MEDAL to Henry J. Ramey, Jr., "For his contributions in the fields of thermal recovery of oil, reservoir engineering aspects of geothermal steam production, and interpretation of well pressure behavior."

The ROBERT EARLL McCONNELL to F. Kenneth Iverson, "For his leadership role in pioneering the application of innovative ways to produce steel with minimum capital expenditure and maximum materials, energy and labor efficiency."

The ERSKINE RAMSAY MEDAL to Raymond E. Zimmerman, "In recognition of his pioneering efforts and significant technical contributions over many years in the fields of coal preparation engineering, coal carbonization and coal utilization."

The CHARLES F. RAND MEMORIAL GOLD MEDAL to Ralph L. Hennebach, "In recognition of his many contributions to the mining industry, from ore buyer to Chairman of ASARCO, and for his service as director of other mining companies, to mining societies, and to the entire mineral resources profession."

The ROBERT H. RICHARDS AWARD to Maurice C. Fuerstenau, "In recognition of his renowned metallurgical research in the area of flotation mechanisms, expertise in metallurgical engineering, creative and innovative technical contributions in both mineral processing and hydrometallurgy, and tireless support of high quality engineering education."

The WILLIAM LAWRENCE SAUNDERS GOLD MEDAL to Sir Frank Espie "For his outstanding contributions of leadership, dedication, and technical management to the mining industries of Australia and Papua New Guinea."

The ENVIRONMENTAL CONSERVATION DISTINGUISHED SERVICE AWARD to W.J. Coppoc, "For his outstanding contribution to Environmental Conservation in the Petroleum Industry and for his significant application of scientific advancements to public interests in Environmental Protection."

The MINERAL INDUSTRY EDUCATION AWARD to Douglas W. Fuerstenau, "In recognition of his excellence in teaching, creative research in mineral processing, personal interest in his many students, and contributions to the mineral industry."

The MINERAL ECONOMICS AWARD to Walter R. Hibbard, Jr., "Who, throughout an outstanding career in industrial research and management, government and education, has understood and effectively communicated the importance of Mineral Economics to the nation."

The ROSSITER W. RAYMOND MEMORIAL AWARD to Robert H. Wagoner, for his paper, "Plastic Behavior of 70/30 Brass Sheet."

LEGION OF HONOR FIFTY-YEAR MEMBER INSIGNIA were conferred upon the following twenty six members: Edmund C. Babson, J.W. Barnes, Arthur J. Beyer, G. Gregory Bryan, Robert D. Butler, James E. Cole, Frank Coolbaugh, G. Donald Emigh, William L. Fink, Louis Gence, Robert B. Grosjean, Phil R. Holdsworth, Clifford R. Horn, George W. Josephson, Stanton B. Keith, Leland H. Logue, John D. McAuliffe, Gill Montgomery, Richard F. Murphy, E.C. Robertson, Robert J. Rose, John T. Ryan, Jr., Alan U. Seybolt, R.G. Sohlberg, Hugh A. Trestrail, James G. Urquhart.

Board of Directors,  
American Institute of Mining, Metallurgical,  
and Petroleum Engineers, Inc.:

We have examined the balance sheets of AMERICAN INSTITUTE of MINING, METALLURGICAL, and PETROLEUM ENGINEERS, INC. as of November 30, 1983 and 1982, and the related statements of revenue and expenses (including the individual statements of revenue and expenses of the Institute's Headquarters and the four constituent societies for 1983) and surplus, and changes in endowment, quasi-endowment and custodian funds for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. at November 30, 1983 and 1982, and the results of its operations and the changes in its endowment, quasi-endowment and custodian funds for the years then ended, and the individual revenue and expenses of the Institute's Headquarters and the four constituent societies for the year ended November 30, 1983, all in conformity with generally accepted accounting principles applied on a consistent basis.

*Coopers & Lybrand*

New York, New York  
January 23, 1984.

AMERICAN INSTITUTE of MINING, METALLURGICAL, and PETROLEUM ENGINEERS, INC.  
BALANCE SHEETS, November 30, 1983 and 1982

ASSETS:	<u>1983</u>	<u>1982</u>	LIABILITIES and FUND BALANCES:	<u>1983</u>	<u>1982</u>
Operating fund:			Operating fund:		
Cash and temporary cash investments	\$ 3,111,782	\$ 2,934,729	Accounts payable and accrued liabilities	\$ 699,518	\$ 756,304
Accounts receivable (Note 1c and 8)	921,368	561,853	Membership dues received in advance	1,255,052	1,320,584
Notes receivable (Note 3)	1,300,000	1,300,000	Other deferred credits, principally publications and meetings	505,206	416,315
Inventories of publications (Note 1b)	2,106,438	1,850,840	Bank note payable (Note 5)	54,000	
Investments, at cost (at market quotations: \$4,216,824 in 1983 and \$3,963,691 in 1982) (Notes 1d and 4)	3,150,684	3,206,649	Mortgage loan payable (Note 2)	172,490	180,427
Property, buildings and equipment (Notes 1c, 2 and 5):			Loans payable to endowment fund plus accrued interest (Note 2)	682,565	707,502
Land	136,034	136,034	Advance from endowment fund for SME land and building investment (Note 2)	100,000	100,000
Buildings, less accumulated depreciation of \$154,974 in 1983 and \$120,728 in 1982	1,191,376	1,225,622	Annual meeting surplus fund	46,385	43,449
Equipment, furniture and fixtures, less accumulated depreciation of \$764,676 in 1983 and \$731,613 in 1982	993,310	1,018,791	Surplus - unrestricted (per statement annexed)	9,589,359	8,955,591
Prepaid expenses, deferred charges and other assets	193,583	245,654		<u>13,104,575</u>	<u>12,480,172</u>
	<u>13,104,575</u>	<u>12,480,172</u>			
Endowment, quasi-endowment and custodian funds:			Endowment, quasi-endowment and custodian funds:		
Investments, at cost plus accrued interest (at market quotations plus accrued interest: \$5,264,597 in 1983 and \$5,344,405 in 1982) (Notes 1d and 4)	5,022,421	4,921,056	Accounts payable	7,403	
Cash and temporary cash investments	809,156	344,588	Fund balances (per statement annexed) (Note 1a):		
Loans receivable from operating fund plus accrued interest (Note 2)	682,565	707,502	Endowment and quasi-endowment funds	6,105,273	5,707,683
Inventories of books (Note 1b)	204,540	189,487	Custodian funds (unrestricted)	706,006	554,950
Advance to operating fund for SME land and building investment (Note 2)	100,000	100,000		<u>6,818,682</u>	<u>6,262,633</u>
	<u>6,818,682</u>	<u>6,262,633</u>			
Founder Society advances to United Engineering Trustees, Inc. (Note 6)	265,000	265,000	Property fund (no change during 1983 and 1982) (Note 6)	265,000	265,000
	<u>\$20,188,257</u>	<u>\$19,007,805</u>		<u>\$20,188,257</u>	<u>\$19,007,805</u>

The accompanying notes are an integral part of the financial statements.

STATEMENTS of REVENUE and EXPENSES and SURPLUS  
for the years ended November 30, 1983 and 1982

	Headquarters and All-Institute	Society of Mining Engineers of AIME	The Metallurgical Society of AIME	Iron & Steel Society of AIME	Society of Petroleum Engineers of AIME	Eliminations	Total 1983	Total 1982
<b>Revenue:</b>								
Members' dues and entrance fees	\$113,088	\$ 894,202	\$ 314,996	\$ 202,225	\$1,281,796	(\$113,088)(1)	\$ 2,693,219	\$ 2,598,949
Advertising and publication sales		1,332,802	1,329,595	484,607	2,965,633		6,112,637	6,528,141
Appropriations from endowment funds	278,400						278,400	182,300
Offshore Technology Conference:								
Attendance and membership distribution	33,094	54,553	14,141	7,314	981,079		1,090,181	1,199,314
Management fees								355,574
Exhibit space commission								69,521
Meetings		404,520	356,639	197,705	1,861,152		2,820,016	4,291,283
Interest and dividends	9,134	65,170	22,743	37,192	411,692		545,931	629,057
Net realized gain (loss) on sales of investments				4,826			4,826	(129,320)
Miscellaneous	8,360	64,863	17,669	62,470	246,294	(5,000)(2)	394,656	312,420
	<u>442,076</u>	<u>2,816,110</u>	<u>2,055,783</u>	<u>996,339</u>	<u>7,747,646</u>	<u>(118,088)</u>	<u>13,939,866</u>	<u>16,037,239</u>
<b>Expenses:</b>								
Publications		1,821,349	1,336,076	583,025	3,147,940		6,888,390	7,310,565
Meetings		380,060	320,928		2,120,420		2,821,408	4,428,058
Society direct expenses		433,817	373,311	463,958	1,930,453		3,201,539	2,640,900
AIME Headquarters	399,747	33,654	9,181	8,411	61,856	(118,088)	394,761	631,752
	<u>399,747</u>	<u>2,668,880</u>	<u>2,039,496</u>	<u>1,055,394</u>	<u>7,260,669</u>	<u>(118,088)</u>	<u>13,306,098</u>	<u>15,011,275</u>
Excess (deficiency) of revenue over expenses	<u>\$ 42,329</u>	<u>\$ 147,230</u>	<u>\$ 16,287</u>	<u>(\$ 59,055)</u>	<u>\$ 486,977</u>	<u>\$ -</u>	633,768	1,025,964
<b>Surplus (unrestricted):</b>								
Balance, beginning of year							8,955,591	7,929,627
Balance, end of year							<u>\$ 9,589,359</u>	<u>\$ 8,955,591</u>

(1) Elimination of dues allocated to Headquarters from societies.

(2) Elimination of appropriation from AIME Headquarters to Society of Mining Engineers.

The accompanying notes are an integral part of the financial statements.



STATEMENTS of CHANGES in ENDOWMENT, QUASI-ENDOWMENT and CUSTODIAN FUNDS  
for the years ended November 30, 1983 and 1982

	1983			1982		
	Endowment and Quasi- Endowment Fund Accounts	Custodian Fund Accounts Unrestricted	Total	Endowment and Quasi- Endowment Fund Accounts	Custodian Fund Accounts Unrestricted	Total
Balance of fund accounts, beginning of year	\$5,707,683	\$554,950	\$6,262,633	\$5,419,922	\$502,887	\$5,922,809
Revenue:						
Contributions	14,011	116,421	130,432	11,612	41,623	53,235
Net gain on sales of investments	279,643	1,667	281,310	111,573	5,538	117,111
Interest and dividends	461,723	55,278	517,001	404,853	57,214	462,067
Sales of books, volumes, etc.	74,025	44,663	118,688	96,517	10,565	107,082
Revenue from conferences and committee meetings, net		96,316	96,316		13,228	13,228
Royalties from publishers and oil deeds	31,587		31,587	35,520		35,520
	<u>860,989</u>	<u>314,345</u>	<u>1,175,334</u>	<u>660,075</u>	<u>128,168</u>	<u>788,243</u>
Expenses and appropriations:						
Publication expenses	123,301	41,042	164,323	128,319	5,774	134,093
Awards	20,618	34,237	54,855	48,831	48,094	96,925
Sundry expenses	41,080	88,010	129,090	12,864	22,237	35,101
Appropriations to operating fund	278,400		278,400	182,300		182,300
	<u>463,399</u>	<u>163,289</u>	<u>626,688</u>	<u>372,314</u>	<u>76,105</u>	<u>448,419</u>
Balance of fund accounts, end of year	<u>\$6,105,273</u>	<u>\$706,006</u>	<u>\$6,811,279</u>	<u>\$5,707,683</u>	<u>\$554,950</u>	<u>\$6,262,633</u>

The accompanying notes are an integral part of the financial statements.

## NOTES to FINANCIAL STATEMENTS

### 1. Summary of Significant Accounting Policies

#### a. General:

The financial statements include the accounts of Headquarters and All-Institute (AIME Headquarters) and the Society of Mining Engineers (SME), the Society of Petroleum Engineers (SPE), The Metallurgical Society (TMS), and the Iron & Steel Society (ISS), the four societies being referred to as the constituent societies.

Custodian funds are either set aside for or generated by the conduct of specific activities within AIME and its constituent societies. While the Institute retains ownership and AIME directors remain responsible for proper use, the operating control has generally been delegated to the AIME body that manages the related activity.

Quasi-endowment funds of \$4,880,397 and \$4,480,912 at November 30, 1983 and 1982, respectively, represent amounts which have been restricted by the Institute's Board of Directors. The Board of Directors has also determined that such funds be retained and invested.

The financial statements do not include assets, liabilities, revenue or expenses of Local Sections, Divisions or Special Committees except for the Institute's share of the net income of the Offshore Technology Conference (OTC). Advances to the OTC which approximate the Institute's equity in the net assets of the OTC (at November 30, 1983 and 1982, the OTC's net assets were comprised principally of cash and temporary cash investments) are included in endowment and custodian fund cash and temporary cash investments on the balance sheets.

The Institute's Board of Directors periodically makes appropriations from interest and dividend income of endowment funds to AIME Headquarters and the individual constituent societies based on their respective operating requirements.

#### b. Inventories:

Salable publications and books are carried at the lower of cost (first-in, first-out) or net realizable value.

#### c. Property, Buildings and Equipment:

Land and buildings comprise the headquarters for SME in Denver, Colorado and TMS and ISS in Warrendale, Pennsylvania. The land and buildings are recorded at

Continued

NOTES to FINANCIAL STATEMENTS, Continued

cost and the buildings are depreciated on the straight-line method over their estimated useful lives. Depreciation expense which is charged to Society direct expenses amounted to \$34,246 and \$34,500 for 1983 and 1982, respectively.

In connection with the construction of the SME headquarters, SME has, since 1978, recorded contributions, net of fund-raising expenses, for the restrictive purpose of defraying the cost of the headquarters. Contributions that are not expended for the headquarters may be used to repay the \$467,000 floating interest loan from the endowment funds (see Note 2) or for future building improvements. In connection with the aforementioned contributions, pledges of \$10,390 and \$11,640 have been included in accounts receivable at November 30, 1983 and 1982, respectively.

Equipment, furniture and fixtures are recorded at cost and are depreciated on the straight-line method over their estimated useful lives. Depreciation expenses for 1983 and 1982 were as follows:

	<u>1983</u>	<u>1982</u>
Charged to publications	\$ 85,913	\$ 75,300
Charged to society direct expenses	186,247	161,400
Charged to AIME Headquarters	<u>1,905</u>	<u>3,700</u>
	<u>\$274,065</u>	<u>\$240,400</u>

d. Investments:

Investments are principally carried at cost with regard to those purchased or at market value on date of gift with regard to those received as contributions, plus accrued interest where applicable. Purchases and sales of securities are reflected on a trade-date basis. An adjustment to the carrying value of the investment is recorded whenever market value is significantly below the carrying value.

e. Gains or Losses on Sale of Investments:

Gains or losses on sale of investments are determined on the basis of average cost. Such gains or losses relating to investments which are part of the endowment and custodian commingled pool of investments are allocated to the individual funds based on their relative book values at the end of each quarter.

Continued

NOTES to FINANCIAL STATEMENTS, Continued

f. Interest and Dividend Income:

Interest from investments is recorded on the accrual basis. Dividends are recorded on the cash basis; however, such basis of accounting does not differ significantly from the generally accepted method of accruing dividends on the record date.

g. Membership Dues:

Membership dues are recorded as income in the accounting period to which they relate.

h. Pensions:

The Institute's pension plan covers substantially all full-time employees, and is noncontributory with regard to the first \$10,000 of salary. Contributions are required from eligible employees for salaries in excess of \$10,000. Actuarially computed pension costs, including amortization of prior service costs over a thirty-year period are funded and charged to expense each year. Pension expense amounted to \$105,364 and \$95,900 in fiscal 1983 and 1982, respectively.

Accumulated plan benefits and plan net assets as of the most recent actuarial valuation date, December 1, 1982, are as follows:

Actuarial present value of accumulated plan benefits:	
Vested	\$1,013,800
Nonvested	<u>52,200</u>
	<u>\$1,066,000</u>
Net assets available for benefits	<u>\$1,653,366</u>

The assumed rate of return used in determining the actuarial present value of accumulated plan benefits was 7.0%.

2. Financing of TMS/ISS and SME Headquarters Facilities

TMS/ISS Headquarters:

During 1978, the operating fund obtained a \$300,055 loan from the endowment fund, payable over twenty years at a floating interest rate based on the endowment fund's

Continued

## NOTES to FINANCIAL STATEMENTS, Continued

prior year's net earnings after management fees. At November 30, 1983 and 1982, the balance of the loan plus accrued interest at 7.1% (1983) and 8.1% (1982) per annum was \$256,448 and \$266,728, respectively.

During 1978, the Institute obtained a mortgage loan of \$206,400 from the Pennsylvania Industrial Development Authority to finance the remaining portion of the construction costs. The loan, collateralized by a mortgage on the building, bears interest at the rate of 4% per annum and is payable in 240 equal monthly instalments which began May 1, 1979. At November 30, 1983 and 1982, the balance of the loan plus accrued interest was \$172,490 and \$180,427, respectively.

### SME Headquarters:

On February 28, 1978, the Institute's Board of Directors approved an investment of \$100,000 from the endowment fund (Rocky Mountain Fund) for the facility and stipulated that the Fund shall hold a proportional share of the facility and receive a proportional share of any proceeds from its sale or disposition.

During fiscal 1979, the operating fund obtained a \$467,000 loan from the endowment fund, payable over twenty years at a floating interest rate based on the endowment fund's prior year's net earnings after management fees. At November 30, 1983 and 1982, the balance of the loan plus accrued interest at 7.1% (1983) and 8.1% (1982) was \$426,117 and \$440,774, respectively.

### 3. Notes Receivable

SPE has notes receivable from SPE Foundation amounting to \$1,300,000 at November 30, 1983. A modification of the agreement dated November 20, 1983 provides that principal and accrued interest shall be due November 20, 1987. SPE may elect to require earlier payment on November 20, 1984, 1985 or 1986. The note bears interest at SPE's short-term yield on reserve funds and is payable quarterly. The notes are collateralized by land owned by SPE Foundation which lien has been subordinated to a construction loan.

Continued

NOTES to FINANCIAL STATEMENTS, Continued

4. Changes in Investments

	<u>1983</u>	<u>1982</u>
a. Operating fund:		
Investments at cost, beginning of year	\$3,206,649	\$2,335,889
Purchases of securities	<u>235,370</u>	<u>1,402,942</u>
	3,442,019	3,738,831
Sales of securities	<u>(296,161)</u>	<u>(402,862)</u>
	3,145,858	3,335,969
Net gain (loss) on sales of securities	<u>4,826*</u>	<u>(129,320)</u>
Investments at cost, end of year	<u>\$3,150,684</u>	<u>\$3,206,649</u>
*Represents unrealized gain at one constituent society which carries its investments at market value.		
b. Endowment, quasi-endowment and custodian funds:		
Investments at cost plus accrued interest, beginning of year	\$4,921,056	\$4,850,742
Purchases of securities	<u>4,866,678</u>	<u>2,768,597</u>
	9,787,734	7,619,339
Sales of securities	<u>5,058,381</u>	<u>(2,814,981)</u>
	4,729,353	4,804,358
Net realized gain on sales of securities	281,310	117,111
Net change in accrued interest	<u>11,758</u>	<u>(413)</u>
Investments at cost plus accrued interest, end of year	<u>\$5,022,421</u>	<u>\$4,921,056</u>

5. Bank Note and Line of Credit

In 1983, ISS entered into a note and security agreement with Mellon Bank, N.A. in order to finance, in part, the acquisition of a new computer system. The note for \$54,000 bears interest at 1 - 1-1/2% above the prime rate, is payable in monthly instalments to 1998 and is collateralized by the computer equipment.

Continued

NOTES to FINANCIAL STATEMENTS, Continued

SME has a \$300,000 bank line of credit which expires February 28, 1984. The line would bear interest at 1% over the prime rate (prime rate at November 30, 1983 was 11%). Borrowings under the line of credit would be uncollateralized. The line of credit has not been used.

6. Advances to United Engineering Trustees, Inc.

In accordance with an agreement between the Institute and the United Engineering Trustees, Inc. (UET), the Institute has agreed to maintain permanently its principal offices in the United Engineering Center Building and to pay a pro rata portion of the operating costs of the building. The Institute's share of these costs during 1983 and 1982 was \$66,200 and \$52,000, respectively. The advance to UET, made in connection with the erection of the United Engineering Center Building, is repayable only out of available reserve funds on dissolution of UET and earns interest at an annual rate of 4%.

7. Commitments

Rental commitments under leases for office space and computer equipment are as follows:

<u>Year</u>	<u>Amount</u>
1984	\$ 314,000
1985	589,000
1986	567,000
1987	567,000
1988	558,000
Thereafter	<u>8,616,604</u>
	<u>\$11,211,604</u>

Rental expense was approximately \$228,000 and \$225,000 during 1983 and 1982, respectively.

See Note 6 with respect to the Institute's commitment related to the United Engineering Center.

8. Joint Publication Arrangement

TMS participates in a joint publication arrangement with the American Society for Metals (ASM), an unaffiliated society, for purposes of publishing a monthly and quarterly scientific journal entitled "Metallurgical Transactions." Under the terms of the agreement, all expenses, income and liabilities are shared equally by the two Societies and overall management is generally directed by a joint commission of the two

Continued

NOTES to FINANCIAL STATEMENTS, Continued

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Societies. However, because TMS has the responsibility for operations and administration of the publication, the accompanying financial statements reflect the total revenues (\$554,480 and \$517,131 for 1983 and 1982, respectively) and expenses (\$554,063 and \$500,313 for 1983 and 1982, respectively) of the joint publication arrangement. Such expenses include \$417 in 1983 and \$16,818 in 1982 to reflect ASM's share of the net income from the joint arrangement. Accounts receivable from ASM at November 30, 1983 and 1982 included \$133,276 and \$64,813, respectively, relating to "Metallurgical Transactions."

9. Tax Status

AIME Headquarters and its constituent societies comprise a non-profit organization exempt from Federal income taxes under Section 501(c)(3) of the Internal Revenue Code.



TOTAL FINANCIAL RESOURCES OF AIME

AS AT NOVEMBER 30, 1983

AIME ENDOWMENT FUNDS

Medal and Plaque Award Funds	\$ 253,652
Scholarship Funds	200,057
Specific Use Funds	2,172,390
General Purpose Funds	<u>3,478,687</u>
TOTAL ENDOWMENT FUNDS . . . .	<u>\$6,104,786</u>

OPERATING SURPLUS FUNDS

AIME Corporate Headquarters	\$ 134,684
SME-AIME	2,139,347
TMS-AIME	360,036
ISS-AIME	350,831
SPE-AIME	<u>6,604,461</u>
TOTAL OPERATING SURPLUS FUNDS	<u>\$9,589,359</u>

FUNDS UNDER ASSIGNMENT TO CONSTITUENT UNITS

Custodian Funds:

AIME Corporate Headquarters	\$ 130,438
SME-AIME	445,075
TMS-AIME	28,451
ISS-AIME	109,572
SPE-AIME	-0-
Equity in Undistributed OTC Surplus	<u>38,494*</u>
TOTAL CUSTODIAN FUNDS . .	<u>\$ 752,030</u>

\*Represents surplus distributable  
to AIME and Constituent Societies

FUNDS HELD BY LOCAL SECTIONS

Approximate value based on 1983  
Section Treasurers' Reports ... \$1,715,818

SUMMARY

ENDOWMENT FUNDS.....	\$ 6,104,786
CUSTODIAN FUNDS.....	752,030
OPERATING SURPLUS FUNDS.....	<u>9,589,359</u>
SUBTOTAL	16,446,175
ADVANCE TO UNITED ENGINEERING TRUSTEES, INC.....	265,000
RESOURCES SET ASIDE TO MEET LIABILITIES .....	<u>3,477,082*</u>
TOTAL RESOURCES EXCLUDING SECTIONS .....	\$20,188,257
LOCAL SECTION FUNDS.....	<u>1,715,818</u>
TOTAL FINANCIAL RESOURCES OF AIME .....	<u>\$21,904,075</u>

\*Includes Endowment Fund Loan and Investments as follows:

Loan for Society Buildings	\$775,789
Investment in SME Buildings	<u>100,000</u>
	<u>\$875,789</u>

AMERICAN INSTITUTE OF MINING, METALLURGICAL,  
AND PETROLEUM ENGINEERS, INC.

MEMBERSHIP DATA

Year	Member Total	Year	Member Total	Year	Member Total	Year	Member Total	Year	Member Total
1870	22	1880	832	1890	2,000	1900	2,450	1910	4,210
1871	157	1881	1,031	1891	2,134	1901	2,897	1911	4,169
1872	254	1882	1,213	1892	2,258	1902	3,262	1912	4,290
1873	273	1883	1,345	1893	2,392	1903	3,741	1913	4,284
1874	345	1884	1,467	1894	2,391	1904	3,530	1914	4,150
1875	554	1885	1,439	1895	2,437	1905	3,886	1915	4,650
1876	628	1886	1,504	1896	2,390	1906	4,048	1916	5,880
1877	732	1887	1,615	1897	2,455	1907	4,191	1917	6,597
1878	734	1888	1,714	1898	2,562	1908	4,241	1918	7,856
1879	788	1889	1,857	1899	2,564	1909	4,284	1919	8,426

Year	Corporate Members	Student Members	Grand Total	Year	Corporate Members	Student Members	Grand Total
1920	8,388	1,920	10,308	1940	10,828	4,171	14,999
1921	8,879	1,326	10,205	1941	11,334	4,179	15,513
1922	8,805	1,328	9,413	1942	11,675	3,489	15,164
1923	7,813	1,315	9,128	1943	12,081	2,707	14,788
1924	7,555	1,263	8,818	1944	12,334	1,497	13,831
1925	7,569	1,157	8,726	1945	12,910	1,088	13,998
1926	7,385	1,131	8,516	1946	14,119	1,737	15,856
1927	7,434	1,004	8,438	1947	15,000	3,117	18,117
1928	7,488	1,000	8,488	1948	15,580	4,069	19,649
1929	7,823	1,033	8,856	1949	16,315	4,952	21,267
1930	7,831	1,162	8,993	1950	17,082	4,534	21,616
1931	7,843	1,131	8,974	1951	17,482	2,229	19,711
1932	7,685	975	8,660	1952	18,643	1,964	20,607
1933	7,155	672	7,827	1953	19,718	2,195	21,913
1934	6,887	628	7,515	1954	21,816	2,179	23,995
1935	6,916	1,006	7,922	1955	23,723	2,325	26,548
1936	7,326	1,620	8,946	1956	26,298	3,415	29,713
1937	8,279	2,147	10,426	1957	28,823	3,974	32,797
1938	9,005	2,898	11,903	1958	30,553	3,757	34,310
1939	9,614	3,760	13,374	1959	33,378	2,332	35,710

Year	Corporate Members	Student Members	Grand Total	Year	Corporate Members	Student Members	Grand Total
1960	34,852	1,893	36,745	1975	50,085	6,663	*56,152
1961	34,368	1,633	36,001	1976	52,642	7,131	59,773
1962	34,437	1,857	36,294	1977	56,008	8,802	64,810
1963	34,838	2,289	37,127	1978	59,385	9,285	68,670
1964	35,740	2,370	38,110	1979	63,712	9,289	73,001
1965	36,878	2,561	39,439	1980	70,791	10,942	81,733
1966	38,912	2,706	41,618	1981	76,600	9,679	86,279
1967	40,278	3,183	43,461	1982	82,387	10,496	92,883
1968	42,015	3,437	45,488	1983	87,960	10,485	98,445
1969	43,300	3,438	46,738				
1970	43,095	3,863	46,958				
1971	44,627	3,962	48,589				
1972	45,742	3,652	49,394				
1973	45,154	4,572	49,726				
1974	46,702	4,988	51,690				

\*Actual Grand Total; 596 TMS-AIME/ISS-AIME Joint Corporate Members included once.

NO.	SECTION	SOCIETY OF MINING ENGINEERS OF AIME								THE METALLURGICAL SOCIETY OF AIME					IRON & STEEL SOCIETY OF AIME			SOCIETY OF PETROLEUM ENGINEERS OF AIME															GRAND TOTAL	NO	
		Min. & Explor. A	M.P.D. B	Coal F	Ind. Min. H	Educ. J	Econ. K	Un-class	Total	Extr. & Proc. Met. D	App. of Met. & Met. Sci. E	Educ. J	Econ. K	Un-class	Total	Division MNOPO	Econ. K	Total	Drilling N	Educ. & Prof. O	Econ. & Eval. P	Well Logging R	Gas Tech. S	Geology & Geol. Eng. T	Management U	Prod. Oper. V	Reservoir Eng. W	Fl Mech & Oil Rec. Proc. X	Off-shore Ops. Y	Emerg. & Perip. Tech. E	Well Comp. C	Press Trans. Test. L			Un-class
P63 M50 M35 M1 P11	ABERDEEN PETROLEUM ADIRONDACK ALABAMA ALASKA ALASKA PETROLEUM	5 30 103 56	14 28 4	1 214 4	16 14	2 2	1 4	1 6	5 62 368 70	7 27	26 35	1	2	3 33 68	4	4	273 4 3 110	22 2 2 4	17 1 4 23	80 1 2 24	1 1 11	20 1 9 32	30 5 9 165	146 9 1 67	109 1 1 18	32 1 1 29	119 3 12 1	3 40 12 1	12 17 17 14	72 1 45 27 522	976 2 481 97 524	981 101 481 97 524	P63 M50 M35 M1 P11		
P50 P22 P38 P72 M58	AMARILLO PETROLEUM ANADARKO BASIN APPALACHIAN PETROLEUM ARGENTINE PETROLEUM ARKANSAS	1 15 31	1 9 7	1 5	6 3	1	1	4 33 48	10 5	6			1	11			57 26 52 28 4	4 1 2 1 1	23 5 14 14 2	9 10 22 11 1	7 5 10 6 2	23 9 16 4	14 6 16 17 3	29 33 28 52 7	26 6 20 62	3 4 2 22	1 1 2 4 1	1 1 1 1 1	8 8 2 1	1 1 1 1	19 4 33 7 2	215 118 227 232 24	226 122 227 265 83	P50 P22 P38 P72 M58	
P81 P35 P44 P45 P19	AUSTRALIAN BALCONES BARTLESVILLE BIG HORN BASIN BILLINGS PETROLEUM								2 1	1				3			61 113 11 27 45	1 13 1 1 2	18 49 18 4 7	24 32 3 9	2 11 5 3 3	11 37 7 4 9	21 36 26 4 12	54 82 49 70 35	78 49 36 11 19	4 18 4 7 3	18 3 5 1	4 2	10 11 2 3 3	4 3 1 1	9 106 7 2 31	319 566 192 141 180	319 569 192 141 180	P81 P35 P44 P45 P19	
M3 M143 P60 T-1 P32	BLACK HILLS BOISE BOLIVIAN PETROLEUM BOSTON CALIFORNIA COASTAL	68 91 26 82	12 15 8 20	2 37	7 5 6	3 1 1	2 5 3	95 158 35 132	4 3 48	6 2			3	13 5	1	1	2 10 11 97	1 1 2 6	5 5 22	13 2 32	6 2 5	2 1 16	1 6 3 28	1 7 4 120	1 4 6 59	1 1 1 16	66 4	4 1 5 4	1 1 1 3	1 1 5 20	4 2 61 48 510	112 166 96 439 510	M3 M143 P60 T-1 P32		
P31 M5 M92 M6 M146	CARACAS PETROLEUM CARLSBAD POTASH CAROLINAS CENTRAL APPALACHIAN CENTRAL ARIZONA	10 39 116 182 17	1 16 41 35 8	2 21 792	3 13 43 16	1 2 7	3 6 22 1	18 71 235 1,067 26	1 1 40 6	1 1	1 1		1	3 2 108 33	21	1	22	18 11 1		8 1	14 3	3 3	5 20 1	15 75 1	20 20 1	5 5 1	1 4 1	4 2 1	13 3	203 1,122 27	224 73 358 1,122 27	P31 M5 M92 M6 M146			
T-2 M60 L-1 T-3 P48	CENTRAL INDIANA CENTRAL NEW MEXICO CHICAGO CHICAGO METALLURGICAL CHICAGO PETROLEUM	5 270 101	2 26 55	2 74 117	18 43		9 9	10 406 331	11 13 1	29 40 2				44 57 3 329	16 2 704	1	17 2	17		7 2	2 2	2 2	2 2	5 7	7 7	1 1	1 1	3 3	1 1	1 1	56 1,054 329 122	71 521 1,054 122	T-2 M60 L-1 T-3 P48		
T-4 L-3 P41 M147 M163	CLEVELAND CLEVELAND IRON & STEEL COASTAL BEND COCHISE COEUR D'ALENE	40 129	10 16	6	3	2 2	8 2 6	55 170	6 6	6 6				6 13	39 361	134 8	7 369	3 42	2 2	1 1	6 6	6 2	9 38	3 3	3 3	3 3	3 3	3 3	1 1	1 1	1 1	4 12 131	200 369 131 61 183	T-4 L-3 P41 M147 M163	
P55 M9 M57 M10 T-5	COLOMBIAN COLORADO COLORADO PLATEAU COLUMBIA CONNECTICUT	21 1,431 299 179 22	3 324 28 17 12	6 283 87 8 3	2 81 9 7 3	11 1	74 6 4	60 2,264 440 217 42	74 2	53 1	1		1	136 4 10 26 216			25 2	1 2	2 5		3 4	4 12	11 11			1 1	1 1	1 1	1 1	11 3	76 2,400 444 247 285	112 2,400 444 247 285	P55 M9 M57 M10 T-5		
P16 P6 P18 T-6 I-5	DALLAS DELTA DENVER PETROLEUM DETROIT DETROIT IRON & STEEL	32 9 43	9 5	5 13	8 15		2 3	58 95	7 28 36	16 16			3 3 9	26 49 290	237	3	240	333 557 586 1	22 23 32	287 71 242	109 98 129	31 23 59	103 56 139	173 116 208	283 356 435 2	379 251 343 1	126 42 113 1	75 160 20	12 4 12	59 67 79	10 9 18	107 109 160 1	2,109 1,942 2,575 6	2,135 2,049 2,575 391 240	P16 P6 P18 T-6 I-5
P46 M95 P3 I-7 M121	EAST KENTUCKY EAST TENNESSEE EAST TEXAS EASTERN IRON & STEEL EASTERN NEVADA	132 10 39	26 5 4	69 10 45	11 4	4 1	5 4	251 30 45	35 1	63 2			8 3	107 3	796 1	25	821 1	32 6 218	1 13	2 30	3 38	2 18 1	10 1 19	6 52	13 223	1 55 1	2 14 1	1 9	1 1	1 1	6 79 812 4	79 377 812 858 46	P46 M95 P3 I-7 M121		
P68 M15 P28 M161 M45	EGYPTIAN EL PASO EVANGELINE EVANSVILLE FLORIDA	52 11 32 278	1 14 2 163	7 4 143 52	7 2 7 142	2 3	3 1 4 8	78 25 194 652	30 2	18 8 8 65			5 2 6	53 2 18 94			48 7 614 10	6 25	3 2 50	13 3 80	7 4 19	10 4 34	10 4 78	47 4 304	17 9 146	10 2 26	24 123	2 58	3 3	118 1,678	268 41 1,705 212 808	271 172 1,705 212 808	P68 M15 P28 M161 M45		
P13 P33 M110 I-9 P53	FORT WORTH FOUR CORNERS GEORGIA GLOBETROTTERS GOLDEN GATE PETROLEUM	3 80	43	2 16	86	1	1	5 231	2 19	2 16			1 2	5 38	669	13	682	101 61 2	5 2	46 5	50 8	7 1	19 5 1	37 5 1	70 43 1	38 7 114	22 4 2	11 5	5 3	40 9	24 5 6 13 684 569	480 161 282 684 569	P13 P33 M110 I-9 P53		
M152 P29 P2 P23 T-7	GRAND CANYON GREAT BEND GULF COAST HOBBS PETROLEUM HUDSON-MOHAWK	76 2 2 20	20 6	1 5	3 6	1	3 2	105 2 2 40	2 1 17	2 1 111				2 2 139	13	13	24 1,997 55 1	87 2	537 5 1	11 421 15 1	172 2 1	3 283 7	2 689 12	25 1,214 107 2	10 994 18 1	382 3 2	418 1	24	4 252 17	45 1	4 421 9	84 7,936 256 201	107 86 7,936 256 201	M152 P29 P2 P23 T-7	
P24 M14 P83 P68 P73	ILLINOIS BASIN PETROLEUM INTERMOUNTAIN IVORY COAST JAPAN KALIMANTAN	44 9	20 9	4	1		4	69 23	63	62		2	7	134			77 8 12 65	4 1 1 9	13 7 6 14	21 1 10 33	9 1 7 13	21 4 7 33	18 5 28 46	34 3 23 9	30 7 13	4 7 22	6 1 2 5	1 1 1 1	49 2 5 17	362 69 35 166 338	362 69 35 166 338	P24 M14 P83 P68 P73			
M18 M51 P58 P26 P14	LEHIGH VALLEY LIMA, PERU LONDON PETROLEUM LOS ANGELES BASIN LOU-ARK	42 117	39 33	26 6	6 7	1	4 6	121 177	40 13	66 1		2	6	114 14			2 21 240 269 145	1 11 20 14	7 74 108 28	2 2 38 28	1 1 14 6	1 1 51 14	2 6 100 120 28	1 16 145 155 36	3 3 70 116 13	5 3 183 74 5	2 6	4 9	14 3 100 3	60 1,303 1,368 488	254 272 1,303 1,368 506	M18 M51 P58 P26 P14			
P76 M148 M47 P59 P1	MALAYSIAN MARICOPA MEXICO MICHIGAN MID-CONTINENT	188 68	60 16	9 2	7 4	2	7 9	278 105	13 26	16 19 1			1	30 46 1	9	9	35 2 20 45 279	4 2 2 4 25	17 1 5 15 140	10 2 7 10 59	11 10 34	6 2 20 71	14 1 9 19 99	31 3 11 38 262	55 1 21 24 176	5 7 8	25 5	2 6	16 9 19 66	231 327 245 209 1,507	231 327 245 209 1,507	P76 M148 M47 P59 P1			
M124 P51 M20 P17 M21	MIDWEST COAL MIDWEST GAS STORAGE MINNESOTA MISSISSIPPI MONTANA	43 329 16 178	6 153 35	150 10 3 20	5 9 11	2 5 1	1 9 10	212 531 20 259	1 19 1 24	6 34 2 9		1	1	7 62 3 36	7 30	1	7 31	20 4 90	3 4	4 2 17	5 19	17 2	10 2 9	11 1 22	15 1 59	14 2 20	2 5 11	1 2	14 2 31	115 22 299	219 123 646 322 295	M124 P51 M20 P17 M21			
M149 P56 P40 M23 P25	MORENCI NATIONAL CAPITAL NETHERLANDS NEW YORK NEW YORK PETROLEUM	70 18 344	19 9 142	1 2 68	1 5 6	3 1	5 1 24	99 31 721	12 3 133	3 1 281		1	1	17 4 485			21 74	3 5 7	62 14 69	26 13	19 8	18 7	31 29	16 43	17 55	9 21	11 41	1 1	2 2	17 18	228 344	116 228 379 1,206 294	M149 P56 P40 M23 P25		

NO.	SECTION	SOCIETY OF MINING ENGINEERS OF AIME							THE METALLURGICAL SOCIETY OF AIME					IRON & STEEL SOCIETY OF AIME			SOCIETY OF PETROLEUM ENGINEERS OF AIME														GRAND TOTAL	NO.				
		Mn. & Explor. A	M P D B	Coal F	Ind. Min. H	Educ. J	Econ. K	Un-class	Total	Extr. & Proc. Met. D	App. of Met. & Met. Sci. E	Educ. J	Econ. K	Un-class	Total	Division MNOQP	Econ. K	Total	Drilling N	Educ. & Prof. O	Econ. & Eval. P	Well Logging R	Gas Tech. S	Geology & Geol. Eng. T	Management U	Prod. Oper. V	Reservoir Eng. W	Fl. Mech. & Oil Rec. Proc. X	Off-shore Op. Y	Emerg. & Perip. Tech. E			Well Comp. C	Press. Trans. Test L	Un-class	Total
I-11 P61 M145 M25 P 4	NIAGARA NIGERIA (LAGOS) NORTH DAKOTA NORTH PACIFIC NORTH TEXAS-SW OKLAHOMA	20 27 14 248	12 6 32	2 56 26	7 7 1 19	3 1 2	2 1 10	43 44 75 340	23 62 1	53 63 2			7 7	83 133 3	156 22	2 1	158 23	5 42 1 5 79		3 13 14 10	2 20 1 2 28	2 16 2	2 14 1 5 9		3 45 47	1 2 6 21	1 12 1 2 4			2 1 1 3	6 25 1 5 24	27 253 7 52 329	311 297 83 548 332	I-11 P61 M145 M25 P 4		
M159 M164 T-8 P69 M22	NORTHEASTERN NEVADA NORTHEASTERN OHIO NO. CALIFORNIA METALLURGICAL NORTHERN MICHIGAN NORTHERN NEVADA	99 88	25 35	40	14 22	4 4	138 196	3 80	53 207				3 20 3	3 17	17	1 1	18 11	11 3	1 1	1 1	6 6		5 2	2 22	3 3	1 1	1 1			2 2	10 10	65 4	141 196 326 65 395	M159 M164 T-8 P69 M22		
P39 P42 M144 M155	NORTHERN OKLAHOMA NORTHERN PLAINS NORTHERN WEST VIRGINIA NORTHWEST TEXAS OHIO MINING	10 12 66	2 4 16	2 1 104	2 18	1 2	19 17 209	2 2	2 1 1				2 1 2	2 1 2	2 1 2	2 1 2	23 4 32	3 1	2 9 7	10 11	1 15 5	2 1 8		5 7 8	36 5 17	10 12 11	29 6	10 2 2	2 1	5 7	1 1	21 3 17	160 59 133	162 79 134 19 209	P39 P42 M144 M155	
P47 T-9 P 8 M125 M28	OHIO PETROLEUM OHIO VALLEY OKLAHOMA CITY OKLAHOMA METALS & MINING OREGON	12 118 78	5 18 18	22 58 10	6 10 6	1 2 1	47 214 117	39 14 45	178 17 31			1 2	10 1	230 33 81	1 141	1 1	141 19	86 1 479	8 29	13 95	35 83 1	12 34	27 56	22 116	56 383	25 174	22 36	6 19	3 4	23 70	2 137	380 2 1,717 11	381 420 1,717 248 228	P47 T-9 P 8 M125 M28		
P21 I-13 P70 M29 P 5	PANHANDLE PENN-OHIO PENSACOLA-MOBILE PENNSYLVANIA ANTHRACITE PERMIAN BASIN	2 42 36	2 4 19 3	2 90 1		1 3 2	5 6 166 42	8 1 5 1	32 1 12		1		3 1	44 2 17 2	223	2	225	30 29 2 413		1 6 4	10 4 5	8 5 33	1 3	6 6	28 5	10 14	1 2	5 1	1 3	8 11	111 274 122 190 1,679	111 274 122 190 1,723	P21 I-13 P70 M29 P 5			
M31 P77 M46 M150 T-11	PHILADELPHIA PHILIPPINE PHILIPPINE PINAL MOUNTAIN PITTSBURGH	56 110 107 243	39 26 36 97	33 7 3 658	18 3 3 19		161 170 153 1,068	36 19 12 167	112 4 1 310		4 2	2 1	14 1	168 24 14 534			12 30 1	1 6 2	2 1	1 1	2 2	3 7 3	7 3	8 5	6 6	14 1	2 3		5 1	7 4	68 57 194 168 1,602	397 57 194 168 1,602	M31 P77 M46 M150 T-11			
I-14 P57 M162 P82 P79	PITTSBURGH IRON & STEEL PITTSBURGH PETROLEUM POWDER RIVER BASIN QATAR ROSWELL	42	4	148	2	2	201		1				1	1,192	27	1,219	75 10 21	5 2	22 5	21 7 2	16 3	17 3 5	28 3 8	52 12 10	28 8	29 16	6 9		9 3	59 3	367 67 104	1,219 367 202 67 104	I-14 P57 M162 P82 P79			
M33 P74 M34 P20 P78	ST. LOUIS SALT LAKE PETROLEUM SAN FRANCISCO SAN JOAQUIN VALLEY SANTA MARIA	103 450 36	31 294 5	173 73 2	29 38 1	5 10	7 35 2	8 14 2	356 914 48	84 1	72 1	1 11	168 1	26 19	1 1	26 20	89 91 10	24 9	27 9	34 29 1	17 6	20 8	36 22	140 32	130 18	26 12	21 30	1 1	13 5	3 11	617 260 935 944 109	642 170 300 109 70	M33 P74 M34 P20 P78			
P37 M154 P67 M112 P34	SAUDI ARABIA SIERRA NEVADA SINGAPORE SNAKE RIVER SNYDER	10 123 4 62 1	6 24 2 13	2 4 1	4 10 1	1 1	1 5 4	3 170 7 94 1	4 4	1 4			3 11	1 1			89 91 10	24 9	27 9	34 29 1	17 6	20 8	36 22	140 32	130 18	26 12	21 30	1 1	13 5	3 11	617 260 935 944 109	642 170 300 109 70	P37 M154 P67 M112 P34			
P54 P15 M137 M157 M75	SOUTH LOUISIANA SOUTH PLAINS SOUTH TEXAS MINERALS SOUTHEAST MISSOURI SOUTHEASTERN UTAH	2 2 116 92 42	1 1 27 14 15		1 17 7		4 3 218 127 61	1 1 14 1	1 12		1 1		1 41 29 3				101 23	9 4	4 3	23 7	5 6	3 4	16 7	55 78	26 11	9 12	36 2		10 4	1 1	24 26	322 188	326 192 259 156 64	P54 P15 M137 M157 M75		
M153 M36 T-12 M118 M151	SOUTHERN ALASKA SO. CALIFORNIA MINING SO. CALIF. METALLURGICAL SOUTHERN NEVADA SOUTHWEST DESERT	109 366 84 36	4 125 14 5	8 41 1	4 59 7	1 3	5 17 114 45	8 13 114 45	139 624 58 7 3	1 1 157 6 1		2 4	19 240 13 4	2 2			7			4		3 2	2 1									140 625 242 148 49	140 625 242 148 49	M153 M36 T-12 M118 M151		
P 7 M38 M126 P27 P64	SOUTHWEST TEXAS SOUTHWESTERN NEW MEXICO SOUTHWESTERN WYOMING SPINDELTOP STAVANGER PETROLEUM	84 44	37 3	2 32	1 19	2 3	132 105 1	12 1 1				2 14 1					349 1 58 173	15 1 8	34 25	41 22 32	30 4 9	22 3 7	60 27	203 127	71 166	18 28	26 149	4 3	33 24	79 68	988 1 106 204 858	988 147 106 204 858	P 7 M38 M126 P27 P64			
M99 P75 P52 P62 M156	TEXAS COAST MNG & MTLs THAILAND TRANS-PECOS TRINIDAD & TOBAGO TRINITY	274 11 128	64 18	107 97	28 2 11	4 7	512 13 267	33 5 13	59 13	2 2	1 1	6 1	101 20				20 79 46	4 5 6	9 5	3 13 7	4 9 23	2 8 9	3 14 16	1 3 27	3 5 58	12 43 32	1 12 7	13 2 6	1 1	5 22 22	81 366 216	613 81 379 216 287	M99 P75 P52 P62 M156			
M 2 P43 P65 M74 M40	TUCSON UINTAH BASIN UNITED ARAB EMIRATES UPPER MISSISSIPPI VALLEY UPPER PENINSULA	589 1 21 131	236 1 2 60	18 7 1	17 2 7	8 2 5	22 1 35 212	13 1 1 9	903 1 1 24	70 1 1 24	16 1 1	2 1 2	6 1 3 36	95 1 1 221	3 1	4	6 32 112	2 5 9	2 6	8 32	1 7	1 3 8	1 5 27	3 30 58	5 74	3 13	24	1 10 3	21 111 404 38 256	1,023 111 406 38 256	M 2 P43 P65 M74 M40					
M41 M90 P80 T-13 M42	UTAH UTAH COAL VICTORIA AREA VIRGINIA WASHINGTON, DC	399 9 31 237	165 4 2 45	106 78 17 59	9 13 5 34	14 14 33	16 1 59 419	722 92 59 419	48 21 42 152	21 42		3 1 4	7 15	79 70 221			4 37		4 21	1 1	5 4	1 1	4 24								807 92 122 129 640	807 92 122 129 640	M41 M90 P80 T-13 M42			
P12 P84 I-15 M165 P30	WEST CENTRAL TEXAS WESTERN AUSTRALIA WESTERN IRON & STEEL WESTERN NEVADA W. VENEZUELA PETROLEUM	50 2	25 1	1 1	3		82 4	1				1 2		112	3	115	37 41		11 1	28 20	5 6	13 6	10 7	68 11	15 11	6 2	12		1 1	13 1	219 117 115 84 119	219 117 115 84 119	P12 P84 I-15 M165 P30			
P71 P 9 P36 M93 M83	W. WYOMING ROCK SPRGS. WICHITA PETROLEUM WILLISTON BASIN WISCONSIN WYOMING MINING & METALS	12 10 66 167	3 1 55 31	4 37 6 43	3 5	1 1 3 5	24 53 145 274	2 6 6 1	6 62 1		1 1	2 4	11 73 2	34			47 42 50 1	5 5	1 16 3	5 17 21	2 3 1	3 20 5 1	3 18 15	29 60 45	16 11	2 16 2	1	10 7 10 1	1 1	9 17 8 4 1	113 236 230 256 277	113 236 230 256 277	P71 P 9 P36 M93 M83			
P10 000	WYOMING PETROLEUM OUT OF SECTION	1,853	652	325	130	34	115	58	3,167	840	525	7	23	96	1,491	1,062	20	1,082	177 730	5 44	13 196	22 245	6 64	17 97	26 232	163 596	59 937	29 265	7 210	1 13	14 118	6 41	41 325	586 4,113	586 9,853	P10 000
	TOTALS STUDENTS TOTAL MEMBERSHIP	13,148	3,992	4,870	1,354	212	742	533	24,851 3,355 28,206	2,793	4,324	42	114	527	7,800 3,337 11,137	5,908	127	6,035 98 6,133	11,282	686	2,922	2,691	1,020	1,793	3,372	9,054	6,473	2,308	2,252	147	1,504	282	3,488	49,274 3,695 52,969	87,960 10,485 98,445	

**AMERICAN INSTITUTE OF MINING, METALLURGICAL,  
AND PETROLEUM ENGINEERS, INC.**

CLASSIFICATION OF AIME MEMBERS

THREE-YEAR TALLY - 1981, 1982, 1983

1983 Breakdown

	1981	1982	1983	SME	TMS	ISS	SPE
HONORARY MEMBERS	49	49	50	17	11	4	18
MEMBERS	43,315	44,980	46,972	14,397	4,836	4,265	23,474
ASSOCIATE MEMBERS	13,774	15,229	15,697	4,489	1,151	1,357	8,700
JUNIORS	18,152	20,490	23,537	5,654	1,802	374	15,707
ASSOCIATE JUNIORS	1,310	1,639	1,704	294	-	35	1,375
<b>TOTAL</b>	<b>76,600</b>	<b>82,387</b>	<b>87,960</b>	<b>24,851</b>	<b>7,800</b>	<b>6,035</b>	<b>49,274</b>
STUDENTS	9,679	10,496	10,485	3,355	3,337	98	3,695
<b>GRAND TOTAL</b>	<b>86,279</b>	<b>92,883</b>	<b>98,445</b>	<b>28,206</b>	<b>11,137</b>	<b>6,133</b>	<b>52,969</b>

1983 NET MEMBERSHIP GAINS

SME-AIME	(528)	-1.8%
TMS-AIME	972	+9.6%
ISS-AIME	(381)	-5.8%
SPE-AIME	5,499	+11.6%
<b>AIME</b>	<b>5,562</b>	<b>+6%</b>

APPROXIMATE MEMBERSHIP RATIO BY SOCIETY FOR LAST 20 YEARS

DECEMBER	SME-AIME	TMS-AIME	ISS-AIME	SPE-AIME
1963	33.6%	28.0%		38.4%
1964	33.0%	29.1		37.9
1965	32.2	29.5		38.3
1966	32.9	29.6		37.5
1967	33.7	29.2		37.1
1968	33.7	29.1		37.2
1969	33.7	29.1		37.2
1970	34.0	29.0		37.0
1971	35.4	26.9		37.7
1972	36.7	25.6		37.7
1973	36.9	22.3		40.8
1974	36.8	20.5		42.7
1975	36.9	14.2	6.4%	42.5
1976	37.6	13.1	6.5	42.8
1977	37.4	12.4	6.6	43.6
1978	36.8	12.0	6.5	44.7
1979	35.5	11.0	7.1	46.4
1980	32.8	10.6	7.1	49.5
1981	32.9	10.8	7.4	48.9
1982	30.9	11.0	7.0	51.1
1983	28.7	11.3	6.2	53.8

**AMERICAN INSTITUTE OF MINING, METALLURGICAL,  
AND PETROLEUM ENGINEERS, INC.**

REPORT ON THE  
112th AIME ANNUAL MEETING

The 112th AIME Annual Meeting was held in Atlanta, Georgia, March 6-10, 1983. AIME Headquarters and the Woman's Auxiliary to AIME (WAAIME) were located at the Peachtree Plaza; the Society of Mining Engineers of AIME and the Society of Petroleum Engineers headquartered at the Hilton; The Metallurgical Society of AIME and the Iron and Steel Society of AIME had their headquarters at the Hyatt Regency. Technical sessions were conducted at the Hilton, Hyatt Regency, and the Marriott. The Georgia Section, under Chairman S. Bearden, hosted the meeting.

REGISTRATION DATA

	<u>ESTIMATED</u>	<u>ACTUAL</u>
AIME MEMBERS	2,516	2,360
Non-Members	600	531
Non-Member Authors	325	314
SEG, CIM, AIMMG, Founder Societies		
Student Members	285	346
Student Non-Members	40	52
	<u>3,766</u>	<u>3,603</u>
WAAIME	300	265
		<u>265</u>
TOTAL REGISTRATION	4,066	3,868

PERCENTAGE OF MEMBER ATTENDANCE

Society of Mining Engineers of AIME.....	52%
The Metallurgical Society of AIME.....	44%
Iron and Steel Society of AIME.....	3%
Society of Petroleum Engineers of AIME.....	1%

REGISTRATION REVENUE AND EXPENSE

	<u>BUDGETED</u>	<u>ACTUAL</u>
REGISTRATION REVENUE	\$302,880.00	\$281,075.00
Total Expenses Charged to Registration Revenue	<u>293,760.00</u>	<u>280,820.00</u>
REVENUE OVER EXPENSE	\$ 9,120.00	\$ 255.00

DISTRIBUTION OF REVENUE SURPLUS

Society of Mining Engineers of AIME	\$( 7,987.00)
The Metallurgical Society of AIME	8,855.00
Iron and Steel Society of AIME	1,089.00
Society of Petroleum Engineers of AIME	4,813.00
Annual Meeting Surplus Fund	<u>( 887.66)</u>
TOTAL DISTRIBUTION	<u>\$ 5,882.34</u>

## SOCIETY OF MINING ENGINEERS OF AIME

REPORT

OF THE

EXECUTIVE DIRECTOR

1983 was a difficult year with mixed results which, like those of 1982, were better than expected given the continuing economic problems of the minerals industry. The negative forces that started in mid-1982 intensified in early 1983 and lessened somewhat toward year-end; however, it appears that these negative forces will continue throughout 1984 and could possibly grow worse.

Revenue fell 5.7 percent (\$170,930) short of budget; however, cost containment and reduced activity held expenses to 90.7 percent of budget (a reduction of \$274,920). These changes resulted in a surplus of \$147,230 which was \$104,530 more than budgeted.

Corporate membership decreased 1.6 percent (404 members lost compared to a gain of 415 in 1982) and student membership decreased 3.6 percent (124 student members compared to a loss of 85 in 1982).

The Offshore Technology Conference successfully defended itself against an anti-trust law suit while suffering the impact of the economic downturn -- attendance and surplus were down. The 1984 OTC will not have an exhibit and is not expected to generate any distributable surplus. The Annual Meeting in Atlanta, Georgia, did well considering economic conditions and location and almost broke even with encouraging attendance. The Fall Meeting in Salt Lake City has been described as one of the industry's most upbeat activities in 1983. Salt Lake City again proved to be a good site with attractive costs. Overall, Meetings provided 16.3 percent (\$459,073) of the revenue and 14.2 percent (\$365,523) of the expense and contributed 53.7 percent (\$79,013) of the surplus for 1983 -- these compare to 12.1 percent (\$360,898) of the revenue; 12.9 percent (\$354,731) of the expense; and, 2.6 percent (\$6,167) of the surplus for 1982.

Publications provided more than 47 percent of the revenue and 68 percent of the expense for 1983 -- compared to 52 percent and 73 percent in 1982. MINING ENGINEERING advertising was about 38 percent of publications revenue compared to about 41 percent in 1982. Overall, the Publications Program lost \$488,547 in 1983 compared to a loss of \$441,007 in 1982. MINING ENGINEERING lost \$513,684; however, when a portion of dues is allocated as subscription income (as required by the IRS to determine possible income tax liability) the loss is reduced to \$166,915. These compare to a loss of \$494,741 reduced to \$122,317 in 1982.

Sales of 16,123 books fell far short of the budgeted goal of 22,000 and were short of the 20,420 sold in 1982. Eleven new titles were published and 27 approved projects were in various stages of development at year-end. Books provided 22.6 percent (\$636,526) of the revenue; 23.3 percent (\$621,212) of the expense including a \$50,000 contribution against slow moving inventory; and 10.4 percent (\$15,314) of the surplus for 1983. These compare to 24.4 percent (\$727,059) of the revenue; 24.6 percent (\$673,501) of the expense including a \$50,000 reserve contribution; and, a contribution of 22.6 percent (54,588) of the surplus for 1982.

The Preprint Program is viewed as a special interest service not used equally by all members. Therefore, the financing goal of the program is to break-even and prices were increased in 1981 toward that goal. The Preprint Program produced a surplus of \$13,882 in 1983 compared to \$176 in 1982 and \$5,930 in 1980.

No new Sections or new Student Chapters were established; however, the Philadelphia Section transferred administration from TMS to SME-AIME. SME-AIME now has 71 Local Sections of which three are in other countries (Lima, Peru; Mexico; and, the Philippines). There are 61 Student Chapters of which 3 are in other countries (Australia; Philippines; Venezuela). SME-AIME also has student members in 6 Student Chapters administered by TMS-AIME.

Personnel turnover was acceptable and active staff positions remain at 30 full-time and eight part-time. Mr. David W. Rome, who had been Manager of Administrative Services since 1975, retired on May 1, 1983. He was replaced by Mr. John J. Orologio who has served as Office and Building Manager since 1980.

#### LONG-RANGE PLANNING

A Long-Range Planning Commission was appointed with 1976 SME-AIME President John F. Havard as Chairman and with the following committees:

<u>COMMITTEE</u>	<u>CHAIRMEN</u>
Scope	Bruce A. Kennedy
Management & Organization	Alfred Weiss
Membership	Burt C. Mariacher
Communications	Thomas J. O'Neil
Educational Activities	Lee W. Saperstein
Meetings	Nelson Severinghaus, Jr.
Publications	A. F. Alsobrook
Professional Status	Martin C. Kuhn
Professionalism	Ted D. Haley
External Relations	Dean W. Lynch
Awards	Maurice C. Fuerstenau
Finance	Donald O. Rausch
Operations	Claude L. Crowley

The first phase has been an introspective self examination of present programs and activities which has resulted in the general conclusion that the Society is strong and operating reasonably well; however, some recommendations were being refined for near term improvements. The next phase in developing the planning process will be to begin to look at the operating environment and conditions anticipated over the next few years and to develop plans and policies which will best enable the Society to operate.

#### ADMINISTRATIVE SERVICES

The open office landscape concept that was implemented in 1982 has helped improve productivity and morale as well as increase work stations from 14 to 29 by better space utilization and the identification of each employee's turf. The ancillary improvements such as the specifically designed computer room have also proven beneficial. These changes enabled the Society to extend the tenant's lease and to use the rent to pay for the improvements. The lease is



due to terminate on August 31, 1985. An extension is unlikely as it appears SME-AIME will need at least some of the space and it is probable that the tenant will also need more space.

Part of the cost containment resulted from the cooperation of suppliers, as the Society was able to renew most annual service and supply contracts at no increase. The snow removal contract was placed with the Ken-Caryl Ranch Master Association shortly before the "Blizzard of '82" -- about 30 inches of snow within 24 hours of Christmas Eve and with high winds causing drifts more than seven feet deep around the office. Extra efforts by the contractor and Society staff held the loss of work time to one day. The building, which completed 52 months of occupancy, weathered the storm and the year with no significant problems.

The improved system for collection of receivables instituted in 1982 continued to work well as receivables remained remarkably current in a poor economy.

The in-house computer book order system started in 1982 was continued. Book sales were significantly down from budget and the prior year. Sales (including books of the Seeley W. Mudd Fund -- the Rapid Excavation and Tunneling Conference Fund) for 1983 were 16,123 volumes totaling \$489,367, which compared to 20,420 volumes for \$518,237 for 1982 -- decreases of 21.0 percent and 5.6 percent, respectively. Total book inventory under SME-AIME control on November 30, 1983, was 79,589 copies of 79 titles with a cost of \$1,353,319 (after reserving \$100,000 for slow moving items), this includes property of the Mudd and RETC Funds, with an inventory of 5,127 copies bearing a cost of \$99,986. Order fulfillment continued from the following seven locations:

<u>FULFILLMENT CENTER</u>	<u>LOCATION</u>
BookCrafters, Inc.	Detroit, Michigan
Edwards Brothers, Inc.	Ann Arbor, Michigan
Kingsport Press	Kingsport, Tennessee
Lucas-Guinn	Hoboken, New Jersey
Port City Press	Baltimore, Maryland
Fred B. Rothman	Ken-Caryl Ranch, Colorado
Concept Enterprises	Redwood City, California

Physical inventories were taken at all locations as of September 30, 1983.

In August 1983, before the 1984 dues billing, SME-AIME moved its lock box functions from United Bank of Denver to First Interstate Bank of Englewood. The lock box is used to receive and credit payments to enable the Society to benefit from part of the float and to maximize cash. The Society enjoyed an all-time high in average and total invested; however, lower rates resulted in lower earnings. A comparison of the last 3 years follows:

	<u>1981</u>	<u>1982</u>	<u>1983</u>
Average amount invested	\$ 534,200	\$784,194	\$ 870,672
Average earning rate	16.1%	13.6%	9.97%
Total earnings	85,000	115,960	95,077
Allocated to various funds	23,407	34,781	31,374
Total investments at year-end	1,108,033	982,973	1,259,725

FINANCES

The following shows the Operating Surplus (Deficit) for the Society since it was started in 1957 (000's omitted):

<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
\$11.4	\$ .7	\$ (.8)	\$4.5	\$1.0	\$(1.7)	\$(14.8)
<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
\$20.1	\$1.2	\$52.6	\$30.1	-0-	\$(10.5)	\$(17.6)
<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
\$(58.9)	\$(32.5)	\$10.7	\$16.6	\$120.4	\$137.9	\$119.7
<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	
\$(19.4)*	\$239.8	\$106.0	\$530.1	\$236.1	\$147.2	

\*Resulting from one time relocation related expenses of \$184,191.

The following shows the status of the Society Surplus Fund since it was started in 1957 (000's omitted):

<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
\$100.9	\$101.6	\$100.8	\$105.3	\$106.3	\$104.6	\$89.8
<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
\$109.9	\$111.1	\$163.7	\$193.8	\$193.8	\$183.3	\$165.7
<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
\$106.8	\$74.3	\$85.0	\$101.6	\$222.0	\$359.9	\$479.6
<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	
\$629.0	\$1,082	\$1,204	\$1,756	\$1,992	\$2,139	

## PUBLICATIONS

Although inflation did not have as large an impact as in recent years, 1983 was an economically trying year for publications. Due to the economy in general and the depressed minerals industry, advertising revenue was down, as were publication sales. Special cost saving measures and promotional efforts were pursued to help offset declining income.

### MINING ENGINEERING

Because of decreased advertising income, special ways of effecting cost savings were investigated at the close of FY 1982 and implemented in January 1983. One measure, which has resulted in a cost reduction of more than \$20,000, was to change the paper used for the black and white sections of MINING ENGINEERING. Ability to sustain the magazine's "bulk" or width has been an unexpected bonus in a year when competitive publications have become very thin. Credit for cost savings in 1983 also belongs to the magazine printer, Cummings Printing Co., Manchester, NH. A number of cost reductions for printing and binding were announced by Cummings in the spring. These cost reductions have been possible because in the last 1-1/2 years the company has brought on stream new press and binding equipment, facilitating these operations and reducing costs. A third means of cost savings has been to carefully monitor the number of pages published in each issue.

The two regular special issues--Annual Review and Directory--were published in May and July, respectively. For the Annual Review issue, a number of mailings soliciting information was sent to all technical committee personnel of the SME-AIME Divisions, mining companies, manufacturers, and state mining and geological organizations. Coverage of exploration and development activities was especially improved from input by the state groups.

Contributing editors from each Division continue to collect data and contribute to the Annual Review issue. Current Contributing Editors are: Peter Phillips, Coal; Stanley J. Lefond, Industrial Minerals; Michael N. Greeley, John W. Peters, and Lee R. Rice, Mining & Exploration; and Peter V. Avotins, Mineral Processing.

Other special issues during the year were the Pre-Show report for the SME-AIME Fall Meeting, published in September, and an issue devoted to Productivity in November. Six articles in February dealt with "Coping With the Recession," how various companies--suppliers, industrial minerals, and consultants--have made changes in their operations because of the recession. The Engineering Fundamentals series is a continuing one, with coverage in 1983 of ripping, design of bins and feeders, using conveyors, guide to correct hose couplings, and developing specifications before selecting heavy-duty apron feeders.

A readership survey was conducted on the September issue by READEX, the St. Paul-based firm that has been doing survey work for the magazine in the last few years. The survey results indicated a continuing high interest in such features or sections as Drift, Washington Survey, Industry Newswatch, Feature Articles, and Technical Papers. The Pre-Show Report in that issue netted 51%

readership. READEX provides two plaques for the highest scoring advertisement, one for the company and one for its advertising agency. Recipient in 1983 was W. R. Stamler Corp. Those respondents that answered the questionnaire accompanying the survey indicated that: (1) they had held their present position an average of 6.3 years and had been with their present employer an average of 9.6 years; (2) 45% were in the 26-40 age bracket; (3) 32% spent more than an hour reading the magazine and 41% spent one hour; (4) the average number of people seeing the respondent's copy was 1.1; and (5) 53% indicated they were responsible for the specification or purchase of exploration, mining, and/or processing equipment.

The Technical Editors Advisory group continues to provide a valuable service, providing reviews of articles, soliciting information, advising the staff, and writing and researching material for special issues, such as the one on Productivity. Current Technical Editors and their areas of expertise are James W. Babcock, exploration and geology; Raymond E. Blair, industrial minerals; Earl L. Rau, mineral processing; and Paul L. Russell, mining.

Due to the depressed conditions in the minerals industry, advertising and display pages decreased for the second time in two years. Only the Professional Services pages increased, from 129 10/12 in FY 1982 to 136 pages in FY 1983. However, a pickup in advertising in September-November may be an encouraging indication of better performance in FY 1984. The percentages of change are shown in the comparative advertising statistics table. Although in prior years advertising rates had been increased in July, an increase this year was postponed for six months until January 1984 because of the economy. Comparative statistics are:

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COMPARATIVE ADVERTISING STATISTICS (FY 82 vs. FY 83)

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	FY 1982		FY 1983		Change, Pages
	Pages	\$ Income	Pages	\$ Income	
Display	285 6/12	\$567,977	215 3/12	\$458,716	- 19.2%
Classified	34 11/12	48,479	16 8/12*	23,056*	- 52.4%
Professional Services	129 10/12	30,265	136	30,285	+ 4.6%
	450 3/12	\$646,721	367 11/12	\$512,057	- 20.8%

\*Includes \$3,294 Employment Service income and 4 3/12 pages.

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In FY 1983, 658 2/12 editorial pages of all types (feature articles, regular columns, Society news, industry news, etc.) were published. In addition, 37 pages of material for other aspects of the Society's and AIME's operations were published: advance publicity for the Fall Meeting, AIME Newsletters, SME-AIME's Annual Report in April, AIME's Annual Report in June, and special pages on the Employment Service in January, June, and September.

Advertising promotion efforts continue to be divided between in-house produced material and purchased services. The READEX survey was one of the purchased services. Others include the circulation audit by ABC (Audit Bureau of Circulation), the annual media data booklet that can be used by advertisers as

a comparability document, and seven advertisements in "Standard Rate and Data (SRDS)," the advertising rate publication widely used by advertisers and their agencies. The ads for SRDS are produced in-house. A series of flyers for special issues were produced in-house and mailed to advertising prospects.

As a means of attracting advertising from other geographic areas, contracts were signed with two advertising representative firms in Europe: Bohn International KG and Sales Plus. The first firm will cover Germany and Austria and the second, based in England, will cover the rest of Europe. Efforts are being made to contact a sales representative firm in Japan.

#### TECHNICAL PAPERS

The Technical Papers Section was published in ten issues of MINING ENGINEERING (not included in May, the Annual Review issue, and July, the directory, because of the size of those issues). A total of 256 pages was published plus 10 pages of abstracts of papers to be published in Vol. 274, the 1983 Transactions volume. Papers published included 46 technical papers, 7 technical notes, and 5 discussions of papers already published. Scheduled for publication in the annual Transactions volume, to be published in spring 1984, are 54 additional papers, all of those accepted within a 12-month period since the last volume was scheduled. In Vol. 272, 1982, published in 1983, there were 43 additional papers, 232 pages published. The backlog of papers awaiting publication in the Technical Papers Section had declined at year-end 1982 but increased during 1983 due to a greater acceptance rate and more papers in the review system.

#### PREPRINTS

During FY 1983 437 papers were preprinted: 196 for the 1983 Annual Meeting plus four Mini Symposia containing 32 papers; 135 for the Fall Meeting plus five Mini Symposia containing 27 papers; and at year-end 47 papers for the 1984 Annual Meeting. Revenue from preprint sales at the 1983 Annual Meeting was \$20,365 compared with \$19,056 at the 1982 Annual Meeting. At the meeting 8,942 papers and 150 Minis were distributed. Revenue at the 1983 Fall Meeting (attendance 2,594) was \$16,423 compared with \$7,533 at the 1982 Fall Meeting (attendance 1,021); 6,150 and 375 Minis were distributed. Total revenue in FY 1983 for the program was \$57,571 compared to \$45,460 in FY 1982 and expense was \$42,613 compared to \$45,284. Income was higher due to a number of bulk orders and greater meeting sales. At the October 1983 meeting, the Board of Directors voted to discontinue Mini Symposia. The original intent of Mini Symposia had been to bind together the papers from a theme session. However, in the period 1979-1983 during which Mini Symposia were produced, a number of problems had developed: (1) Deadlines were unevenly met and the booklets could not be printed until the last paper was received (or a final panic date reached). (2) There was a growing tendency to couple the preprints from more than one session in a single booklet, making the booklets unwieldy and the cost high for persons wanting only one or two papers.

## BOOK PUBLISHING

In FY 1983, 11 new titles were published and one existing title reprinted:

- ° Ground Control in Room-and-Pillar Mining, Y. P. Chugh, editor
- ° Gold, Silver, Uranium, and Coal--Geology, Mining Extraction, and Environment, M. C. Fuerstenau and B. R. Palmer, editors
- ° 6th Annual Uranium Seminar, South Texas Minerals Section
- ° Stability in Underground Mining, C. O. Brawner, editor
- ° Construction Engineering in Underground Coal Mines by S. G. Britton
- ° 1983 RETC Proceedings, Harry Sutcliffe and J. W. Wilson, editors
- ° Hydrometallurgy of Copper, Its Byproducts, and Rarer Metals, L. A. Haas and D. R. Weir, editors
- ° Proceedings of the 1st Conference on Use of Computers in the Coal Industry, Y. J. Wang and R. L. Sanford, editors
- ° Coal Preparation, 4th edition, J. W. Leonard, editor, reprint
- ° Coal Mining Technology--Theory and Practice by Robert Stefanko, C. J. Bise, editor
- ° Industrial Minerals and Rocks, 5th edition, S. J. Lefond, editor
- ° Ultrafine Grinding and Separation of Industrial Minerals, S. M. Malghan, editor

Of the 11 new titles published in 1983, 6 were SME-AIME meetings related or SME-AIME generated (including 2 generated from SME-AIME Local Section activities), and 3 were published for outside activities: Polish-American Conference on Ground Control in Room-and-Pillar Mining, 1st International Conference on Stability in Underground Mining, and the 1st Conference on Use of Computers in the Coal Industry.

Currently 27 book publishing projects have been approved by the SME-AIME Publications Board as recommended by the SME-AIME Book Publishing Committee. These projects are being carefully monitored for scheduling performance with several pending cancellation if deadlines are not met. In order to lessen inventory value buildup and diminish cash outflow, a limited initial print run policy has been implemented in FY 1983. The first printing of a book has been limited and a book will be reprinted if demand so warrants.

During 1983, Publications Board Awards were given to 13 individuals and one Local Section whose endeavors resulted in books published by the Society. The list of award winners is contained elsewhere in this report.

Moving book inventory, a sizable part of the Society's assets, has been particularly challenging in the economic climate that existed in 1983. To counteract slumping sales, a series of ads grouping books by subject matter were prepared and run in MINING ENGINEERING. These ads were overprinted and mailed to the specific Divisional interest groups and to a list of about 3600 companies and individuals purchased from a commercial list-providing firm. As a promotion incentive, a 10% discount was offered (effective through Dec. 31, 1983) on the book list mailed in September with the 1984 dues bill. The discount was also offered during the Fall Meeting. It is anticipated that possible declines in enrollments at mineral industry schools will have a future impact on bulk-order sales for classroom use. Home computer users can access the SME-AIME Bookstore through CompuServe.

Book sales of all types grossed \$489,367 compared with \$518,237 in FY 1982. Of this, \$90,189 was for books published for various funds (RETC, Mudd Fund, etc.), compared with \$76,635 in 1982, and \$399,178 for SME-AIME books, compared with \$441,602 in 1982. Postage and handling fees totaled \$82,881 compared to \$99,870 in 1982. Cost of sales was \$391,590, for a net of \$15,314 (compared to \$334,058 and \$54,558 in 1982), after a reserve of \$50,000 for slow-moving inventory. Cost recovery from book editing (the transfer of staff time and overhead to inventory) was \$135,076 compared to \$185,587 in 1982. The number of books sold was 16,123 compared to 20,420 sold in 1982.

#### INFORMATION RETRIEVAL

Response to the information retrieval system through Information on Demand (IOD), a Berkeley, CA, firm continues to be slow. It is hoped that the IOD-generated bibliography on productivity, published in MINING ENGINEERING in November, and an article on the service in December, will stimulate interest. IOD shared a booth at the Fall Meeting with CompuServe, explaining the services of IOD to attendees.

#### MINERALS AND METALLURGICAL PROCESSING

At the March meeting the SME-AIME Board of Directors approved an SME-AIME Working Party (#68) recommendation that a quarterly journal, Minerals and Metallurgical Processing, be established in 1984 to include processing papers from all four of the Society's Divisions. Editor-in-Chief is Burt C. Mariacher and the four Associate Editors are Paul L. Person (Coal), Haydn H. Murray (Industrial Minerals), P. Somasundaran (Mineral Processing), and Jonathan S. Jackson (Mining & Exploration). An Editorial Review Board of 25-30 persons is being formed to expedite the peer-review process for the journal.

Papers from the 1983 Annual and Fall Meetings, the 7th Precious Metals and Uranium Seminar, and a number of papers especially submitted have been or are being reviewed for the new journal. Criteria for preferred content has been established.

Initial planning for the new journal called for a schedule of February, May August, and November publication. However, because of the slower than anticipated compilation of content for the first issue, the first issue will be published in May, with the subscription period extended through February 1985.

Promotional efforts have included ads in MINING ENGINEERING. The initial ad, published in June, was overprinted and mailed to the Mineral Processing Division membership, the extractive metallurgists of The Metallurgical Society, and about 3600 companies and individuals on the specially purchased mailing list also used for book promotion. "Minerals and Metallurgical Processing" is listed on the 1984 dues bill. Additional promotional efforts will be made. At present (12-15-83) 152 subscriptions have been purchased.

### MEETINGS

SME-AIME seems to be slowly moving toward a new meetings policy that will establish one major meeting, the SME-AIME Annual Meeting and Technological Information Exchange Exhibit to be held in late February or early March each year in those locations which are proven meeting sites and that are less costly to attendees (such as Arizona, Colorado, Nevada, New Mexico, and Utah). Complementing this one major national meeting will be the flexible use of topical, specialty, regional, international, and resort meetings, which will be scheduled by need to provide program opportunities; take the Society to the members; strengthen the Society's international image and relationships; and, periodically provide resort settings for those members who want them. The SME-AIME Board is expected to decide in February 1984 whether to implement these changes in 1987. The AIME Executive Committee has the charge to determine what will happen to the AIME Annual Meeting. A report is expected in February 1984.

The continued worldwide economic problems in the minerals industry caused concern and bleak forecasts for meetings in 1983. However, both the Annual and Fall Meetings did better than expected in attendance and financially.

The Annual Meeting was held in Atlanta, Georgia, a location considered to have limited appeal to SME-AIME members, and attendance exceeded forecasts. The extra revenue from this increased attendance and good cost controls turned an expected \$31,809 loss into a loss of only \$206.

The Fall Meeting has always done well in Salt Lake City, Utah; however, the bad situation in the industry in Utah created strong concerns. Attendance and revenue were up and expenses were down and a budgeted surplus of \$15,000 was turned into a \$32,143 surplus.

Probably the most encouraging factor from these two successes was the sustained program excellence that has consistently resulted since the Program Coordination Committee was started.

Attendance at the Rapid Excavation and Tunneling Conference (RETC) was less than expected -- a condition attributed to the economic circumstances for AIME and ASCE members.

The Offshore Technology Conference (OTC) also had a decline in attendance and surplus distributed. However, the conference was successful in defending itself against an antitrust lawsuit. The 1984 OTC will not have an exhibit and will not distribute any surplus. The plan calls for an exhibit every other year and a distribution of surplus in that year -- SME-AIME can anticipate about \$70,000 every other year. Some consideration will be given to returning to the annual exhibit pattern as soon as economics, principally in the petroleum industry, will support it.

Overall, meetings provided:

	<u>1981</u>	<u>1982</u>	<u>1983</u>
Revenue	20.4% (\$607,432)	12.1% (\$360,898)	16.3% (\$459,073)
Expense	17.2% (\$421,099)	12.9% (\$354,731)	14.2% (\$365,533)
Surplus	<u>35.2% (\$186,333)</u>	<u>2.6% (\$ 6,167)</u>	<u>53.7% (\$ 79,013)</u>



ANNUAL MEETING

The 1983 Annual Meeting was held March 6-10 in Atlanta, Georgia. Total SME-AIME registration was down 135 from the last Annual Meeting in Atlanta in 1977. However, a financial comparison indicates a \$32 surplus in 1977 vs. a \$206 loss in 1983.

The following charts indicate: 1) attendance by SME-AIME members at the Annual Meeting since 1963, and 2) Annual Meeting comparisons, 1973-1983 (by location, registration, and financial performance).

SME-AIME MEMBER ATTENDANCE -- ANNUAL MEETINGS

Year	Location	Attendance		
		Number	Percent	
1963	Dallas, Texas	1079	47.0%	} 47.8% <u>Average</u>
1964	New York, New York	1221	44.2%	
1965	Chicago, Illinois	1073	48.2%	
1966	New York, New York	1438	47.7%	
1967	Los Angeles, California	1421	48.5%	
1968	New York, New York	1632	51.1%	
→ Institute of Metals Division of TMS Stopped Programming				
1969	Washington, D.C.	1478	63.1%	} 65.5% <u>Average</u>
1970	Denver, Colorado	2399	69.4%	
1971	New York, New York	1460	62.0%	
1972	San Francisco, California	1581	72.8%	
1973	Chicago, Illinois	1145	62.9%	
1974	Dallas, Texas	1235	63.2%	
1975	New York, New York	1263	65.0%	
→ Institute of Metals Division of TMS Resumed Programming				
1976	Las Vegas, Nevada	1840	64.0%	} 56.4% <u>Average</u>
1977	Atlanta, Georgia	1381	55.0%	
1978	Denver, Colorado	2076	66.0%	
1979	New Orleans, Louisiana	1777	59.1%	
1980	Las Vegas, Nevada	2066	58.0%	
1981	Chicago, Illinois	1400	52.1%	
1982	Dallas, Texas	1144	49.1%	
1983	Atlanta, Georgia	1137	48.0%	

	1973 Chicago	1974 Dallas	1975 New York	1976 Las Vegas	1977 Atlanta	1978 Denver	1979 New Orleans	1980 Las Vegas	1981 Chicago	1982 Dallas	1983 Atlanta
Registration											
Members	1,145	1,235	1,202	1,840	1,381	2,072	1,777	2,066	1,400	1,144	1,137
Nonmembers				423	188	270	247	350	208	160	187
Nonmember Authors				75	77	89	126	175	110	83	106
SEG				31	9	51	55	39	21	47	72
CIM				35	10	12	19	15	10	8	9
AIMMG				8	- 0 -	- 0 -	1	1	1	- 0 -	- 0 -
Founder Societies				- 0 -	- 0 -	- 0 -	9	8	3	1	5
Student Members				133	136	268	212	240	135	74	150
Student Nonmembers				35	14	30	27	23	7	15	14
<b>Total Registration</b>				<b>2,580</b>	<b>1,815</b>	<b>2,792</b>	<b>2,446</b>	<b>2,917</b>	<b>1,895</b>	<b>1,532</b>	<b>1,680</b>
Surplus (Loss)	\$(11,938)	\$(10,940)	\$(13,424)	\$35,860	\$ 32	\$16,967	\$19,830	\$30,280	\$ 6,674	\$(47,119)	\$(206.00)

Two symposia were conducted at the Annual Meeting: Process Mineralogy, which consisted of five sessions and the Third International Symposium on Hydrometallurgy, which included ten sessions. Both were joint between the Mineral Processing Division of SME and The Metallurgical Society of AIME. The total number of sessions programmed for the 1983 Annual Meeting reached a seven-year high of 73 -- 21 more than the last time SME-AIME met in Atlanta and 19 more than the 1982 Annual Meeting.

**SOCIETY OF MINING ENGINEERS OF AIME**  
**ANNUAL MEETING PROGRAM ACTIVITY—NUMBER OF SESSIONS/PAPERS BY SPONSOR**  
 (Indicating Joint and Symposium Activity)

YEAR LOCATION	COAL	IndMD	MPD	M & E	MRMC	SEG	TOTAL
<b>1977</b>							
ATLANTA	11/47	6/30	12/61	12/42	2/8	—0—	43/188
Joint	—0—	—0—	—0—	—0—	—0—	—0—	0/0
Symp	9/61 Agglomeration w/ISS	—0—	—0—	—0—	—0—	—0—	9/61
<b>TOTAL</b>	<b>20/108</b>	<b>6/30</b>	<b>12/61</b>	<b>12/42</b>	<b>2/8</b>	<b>—0—</b>	<b>52/249</b>
<b>1978</b>							
DENVER	10/41	1/5	17/82	11/48	—0—	—0—	39/176
Joint	—0—	7/38 w/SEG	—0—	—0—	4/16 Coun. of Ec.	7/38 w/IndMD	11/54
Symp	—0—	—0—	—0—	—0—	—0—	—0—	0/0
<b>TOTAL</b>	<b>10/41</b>	<b>8/43</b>	<b>17/82</b>	<b>11/48</b>	<b>4/16</b>	<b>7/38</b>	<b>50/230</b>
<b>1979</b>							
NEW ORLEANS	11/46	5/24	16/86	13/70	2/8	4/23	51/257
Joint	2/10 w/MPD 1/4 w/MRMC	1/5 w/ M & E	2/10 w/COAL 1/5 w/MRMC	1/5 w/IndMD 1/4 w/MRMC	1/4 w/COAL 1/5 w/MPD 1/4 w/M & E	—0—	6/28
Symp	—0—	6/32 Laterite	—0—	—0—	—0—	—0—	6/32
<b>TOTAL</b>	<b>14/60</b>	<b>12/61</b>	<b>19/101</b>	<b>15/79</b>	<b>5/21</b>	<b>4/23</b>	<b>63/317</b>
<b>1980</b>							
LAS VEGAS	8/39	6/30	13/72	11/51	2/7	5/23	45/222
Joint	—0—	2/10 w/MPD 1/4 w/MRMC	2/10 w/IndMD	—0—	1/4 w/IndMD	—0—	3/14
Symp	—0—	—0—	16/91 Fine Particles	—0—	—0—	—0—	16/91
<b>TOTAL</b>	<b>8/39</b>	<b>9/44</b>	<b>31/173</b>	<b>11/51</b>	<b>3/11</b>	<b>5/23</b>	<b>64/327</b>
<b>1981</b>							
CHICAGO	8/29	6/27	18/80	12/60	4/16	5/26	51/238
Joint	1/4 w/ IndMD	1/4 w/COAL	—0—	—0—	1/5 w/Coun. of Ec.	—0—	2/9
Symp	5/25 Longwall	—0—	—0—	—0—	—0—	—0—	5/25
<b>TOTAL</b>	<b>12/58</b>	<b>7/31</b>	<b>18/80</b>	<b>12/60</b>	<b>5/21</b>	<b>5/26</b>	<b>58/272</b>
<b>1982</b>							
DALLAS	4/20	5/20	19/109	8/42	4/18	5/26	45/235
Joint	2/9 w/MPD 2/29 w/M & E 1/5 w/MRMC	1/3 w/MRMC	2/9 w/COAL 3/17 w/M & ETMS	2/9 w/COAL 3/17 w/MPD/TMS	1/5 w/COAL 1/3 w/IndMD	—0—	9/43
Symp	—0—	—0—	—0—	—0—	—0—	—0—	0/0
<b>TOTAL</b>	<b>9/43</b>	<b>6/23</b>	<b>24/135</b>	<b>13/68</b>	<b>6/26</b>	<b>5/26</b>	<b>54/278</b>
<b>1983</b>							
ATLANTA	14/70	4/21	11/61	12/61	6/30	5/25	52/268
Joint	1/6 w/M&E 1/5 w/MPD	2/9 w/MRMC 2/10 w/IndMD	1/5 w/COAL 2/10 w/IndMD	1/6 w/COAL	2/9 w/IndMD	—0—	6/30
Symp	—0—	—0—	5/25 w/TMS 10/83 HYDRO	—0—	—0—	—0—	5/25
<b>TOTAL</b>	<b>16/81</b>	<b>8/40</b>	<b>29/164</b> w/TMS	<b>13/67</b>	<b>8/39</b>	<b>5/25</b>	<b>73/386</b>

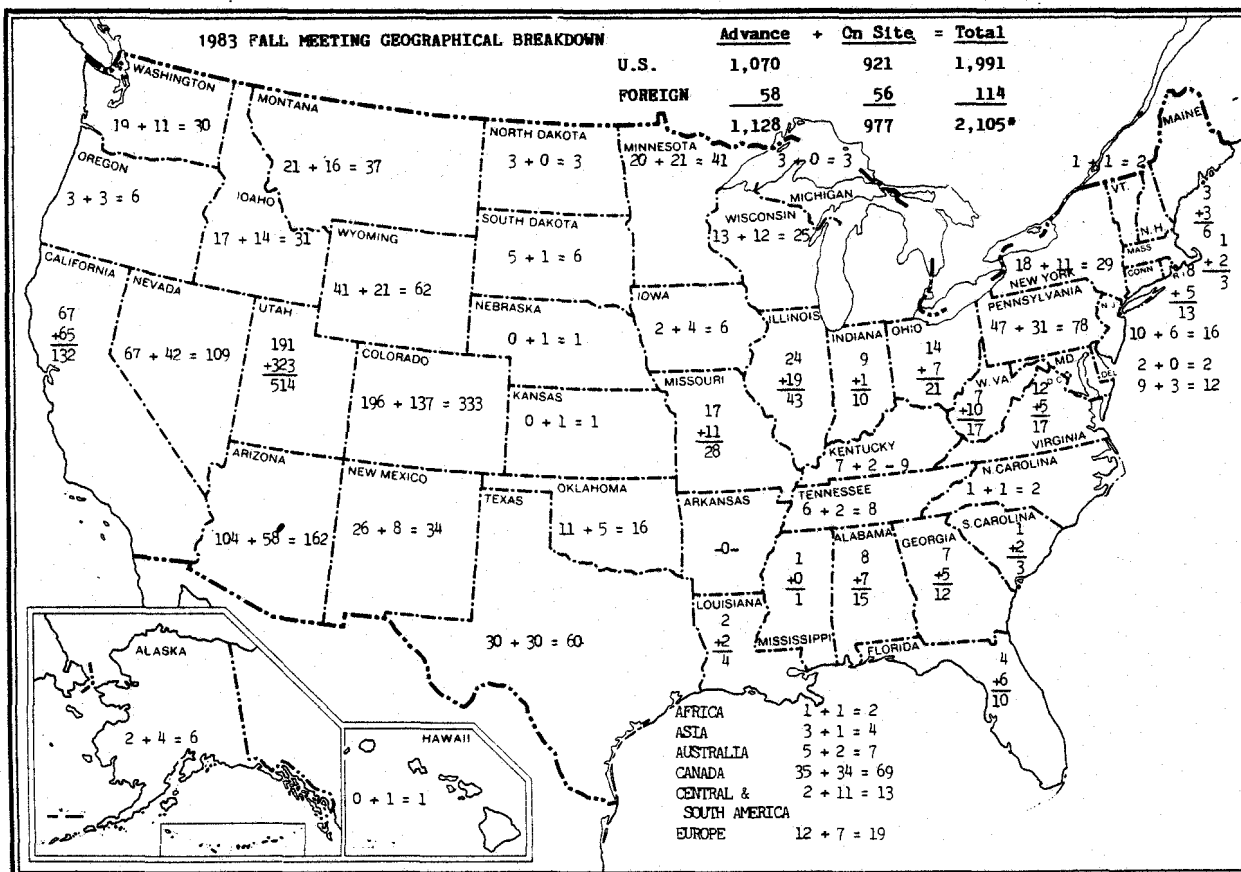
**FALL MEETING**

The 1983 Fall Meeting and Technological Information Exchange Exhibit was held October 19-21, at the Salt Palace, Salt Lake City, Utah. Attendance and exhibit sales were down from 1981. However, this was expected due to the depressed economic situation in the mineral industry as well as in the nation. Even though overall attendance was down, the meeting was considered a success by those attending as well as exhibiting. The following charts indicate: 1) Fall Meeting comparisons, 1973-1983 (by location, registration, exhibit sales, and financial performance), and 2) geographic breakdown by registrant.

**SME-AIME Fall Meeting—1973 Through 1983**  
by Location-Registration-Exhibit Sales-Financial Performance

	1973 Pittsburgh	1974 Acapulco	1975 Salt Lake City	1976 **Denver	1977 St. Louis	1978 *Orlando/ Nassau	1979 Tucson	1980 Minneapolis	1981 Denver	1982 *Hawaii	1983 Salt Lake City
<b>Registration</b>											
Members	490	550	1,131	1,340	915	637	1,702	804	1,789	629	1227
Nonmembers	78	93	209	216	179	84	343	115	311	28	188
Student Members	- 0 -	- 0 -	53	133	103	20	104	85	234	3	138
Student Nonmembers	- 0 -	4	13	19	5	3	31	6	36	8	10
WAAIME's	78	411	315	297	177	287	452	135	294	351	167
Exhibitors***	74	- 0 -	413	494	350	- 0 -	517	185	701	- 0 -	412
Exhibits Only	- 0 -	- 0 -	- 0 -	215	137	- 0 -	175	50	502	- 0 -	128
Guests of Exhibitors	- 0 -	- 0 -	1,237	609	350	- 0 -	273	76	498	- 0 -	323
<b>Total Registration</b>	<b>720</b>	<b>1,058</b>	<b>3,371</b>	<b>3,323</b>	<b>2,039</b>	<b>1,031</b>	<b>3,597</b>	<b>1,456</b>	<b>4,365</b>	<b>1,019</b>	<b>2,593</b>
Exhibit Booths Sold	44	- 0 -	125	151	144	- 0 -	157	81	187	- 0 -	107.1
Exhibiting Companies	38	- 0 -	97	108	96	- 0 -	112	53	130	- 0 -	76
Surplus (Loss)	\$(8,387)	\$ 408	\$40,961	\$2,076	\$11,954	\$(33,654)	\$57,873	\$(12,646)	\$70,998	\$(50,750)	\$32,143

\*1974, 1978, and 1982, the AMC Equipment Show was held in Las Vegas and no exhibit was held at the Fall Meeting  
\*\*Included 3rd MMJ/AIME Joint Meeting. Member registration includes 88 MMJ members.  
\*\*\*A significant number of the people registered as exhibitors are also members of SME.



Special program features at the 1983 Fall Meeting included two symposia: Applied Mining Geology and Heap & Dump Leaching Practice, both sponsored by the M&E Division. Additionally, a three-session mini-symposium on In-Pit Crushing and Conveying preceded the meeting. A total of 43 sessions were conducted at the Fall Meeting, down from the 53 presented at the 1982 Fall Meeting, which was the First International SME-AIME Fall Meeting. The major difference was that the two symposia conducted in 1982 had a total of 11 sessions, while the two symposia at the 1983 Meeting were smaller, with only three sessions each.

**SOCIETY OF MINING ENGINEERS OF AIME  
FALL MEETING PROGRAM ACTIVITY—NUMBER OF SESSIONS/PAPERS BY SPONSOR  
(Indicating Joint and Symposium Activity)**

YEAR LOCATION	COAL	IndMD	MPD	M & E	MRMC	*KEYNOTE/GEM	TOTAL
1977 ST. LOUIS	8/34	8/38	8/37	7/32	1/8	1	33/147
Joint	—0—	—0—	1/4 w/MRMC	—0—	1/4 w/MPD	—0—	1/4
Symp	—0—	—0—	4/20 w/Ld/Zinc	—0—	—0—	—0—	4/20
<b>TOTAL</b>	<b>8/34</b>	<b>8/38</b>	<b>13/61</b>	<b>7/32</b>	<b>2/10</b>	<b>1/0</b>	<b>38/171</b>
1978 ORLANDO/ NASSAU	5/22	4/19	5/25	6/28	3/13	1/1	24/108
Joint	1/4 w/M & E	2/9 w/MPD	2/9 w/IndMD	1/4 w/COAL	1/4 w/COAL	—0—	4/17
Symp	1/4 w/MRMC	—0—	—0—	—0—	—0—	—0—	—0—
<b>TOTAL</b>	<b>7/30</b>	<b>6/28</b>	<b>7/34</b>	<b>7/32</b>	<b>4/17</b>	<b>1/1</b>	<b>28/125</b>
1979 TUCSON	5/22	5/23	7/35	8/41	1/4	1/3	28/132
Joint	—0—	—0—	1/3 w/ISA	1/5 w/Ap. Com.	1/5 w/Ap. Com.	—0—	3/13
Symp	—0—	—0—	1/3 w/ISA	10/47 w/Ap. Com.	—0—	—0—	11/50
<b>TOTAL</b>	<b>5/22</b>	<b>5/23</b>	<b>9/41</b>	<b>19/93</b>	<b>2/9</b>	<b>1/3</b> <b>1/4</b>	<b>42/195</b>
1980 MINNEAPOLIS	6/31	5/23	8/32	10/53	2/6	1/2	32/147
Joint	1/5 w/MRM	—0—	—0—	—0—	1/5 w/COAL	—0—	1/5
Symp	—0—	—0—	—0—	—0—	—0—	—0—	—0—
<b>TOTAL</b>	<b>7/36</b>	<b>5/23</b>	<b>8/32</b>	<b>10/53</b>	<b>3/11</b>	<b>1/2</b> <b>—0—</b>	<b>33/152</b>
1981 DENVER	6/28	3/15	6/29	7/36	1/4	* 1/5	24/117
Joint	1/5 w/MPD	1/5 w/MRM	1/5 w/COAL	—0—	1/4 w/COAL	Career	3/14
Symp	1/4 w/MRMC	—0—	—0—	5/27-Sol. Mining	1/5 w/IndMD	Guid.	5/27
	—0—	—0—	—0—	11/59-Caving	—0—	—0—	11/59
<b>TOTAL</b>	<b>8/37</b>	<b>4/20</b>	<b>7/34</b>	<b>23/122</b>	<b>3/13</b>	<b>1/5</b> <b>—0—</b>	<b>43/217</b>
1982 HAWAII	11/54	5/30	8/43	7/34	5/25	—0—	38/186
Joint	1/4 w/MPD	—0—	—0—	—0—	—0—	—0—	—0—
	1/5 w/MRMC	2/8 w/MRMC	1/4 w/COAL	2/11 w/Coal	1/5 w/COAL	—0—	6/28
Symp	2/11 w/M & E	—0—	7/60 Comminution	—0—	2/8 w/IndMD	—0—	11/88
	4/28 Longwall	—0—	—0—	—0—	—0—	—0—	—0—
<b>TOTAL</b>	<b>19/102</b>	<b>7/38</b>	<b>16/107</b>	<b>9/45</b>	<b>8/38</b>	<b>—0—</b> <b>—0—</b>	<b>53/302</b>
1983 SALT LAKE	7/34	6/29	10/47	5/23	2/9	—0—	30/142
Joint	1/8 w/M&E	1/5 w/IndMD	3/15 w/M&E	1/6 w/COAL	1/4 w/COAL	—0—	7/34
	1/4 w/MRMC	—0—	—0—	3/15 w/MPD	1/5 w/IndMD	—0—	—0—
Symp	—0—	—0—	—0—	1/4 w/MRMC	1/4 w/M&E	—0—	—0—
	—0—	—0—	—0—	3/15 GEOL.	—0—	—0—	3/15
	—0—	—0—	—0—	3/16 LEACHING	—0—	—0—	3/16
<b>TOTAL</b>	<b>9/44</b>	<b>7/34</b>	<b>13/64</b>	<b>16/79</b>	<b>5/22</b>	<b>—0—</b> <b>—0—</b>	<b>43/207</b>

OFFSHORE TECHNOLOGY CONFERENCE (OTC): SURPLUS TO SME 1970 - 1983

<u>Year</u>	<u>Surplus</u>	<u>Year</u>	<u>Surplus</u>	<u>Year</u>	<u>Surplus</u>
1970	\$12,198	1975	\$57,838	1980	\$ 83,896
1971	11,994	1976	75,497	1981	111,846
1972	19,731	1977	84,518	1982	110,113
1973	31,187	1978	70,005	1983	54,553
1974	40,824	1979	98,592	Total	<u>\$862,792</u>

RAPID EXCAVATION AND TUNNELING CONFERENCE (RETC)

The 1983 RETC was held June 12-16 at the Palmer House, Chicago, Illinois. The Conference had 615 paid registrants, 19 technical sessions, one field trip, and a total of 41 booths. Lower attendance figures for this Conference have been attributed to the overall economic climate in the mining and civil engineering activities.

Plans for the 1985 RETC, June 16-20 to be held at the New York Hilton Hotel, New York City, are well under way. The SME-AIME staff will provide the Conference with the overall coordination of the technical program, social functions, and spouses' activities. Staff support for the exhibit will be determined by the RETC Executive Committee at its meeting in January. A chart indicating RETC registration for the last three years follows.

RETC REGISTRATION 1979-1983

	<u>1979</u> <u>ATLANTA</u>	<u>1981</u> <u>SAN FRANCISCO</u>	<u>1983</u> <u>CHICAGO</u>	<u>Change</u> <u>1981-1983</u>
AIME Members	156	288	182	-106
ASCE Members	206	273	186	-87
Canadian Institute of Mining & Metallurgy Members	13	27	22	-5
Engineering Institute of Canada Members	6	15	1	-14
Nonmember Authors	68	62	46	-16
Nonmembers	338	313	173	-140
Student Members	2	26	15	-11
Student Nonmembers	4	10	5	-5
Press/Complimentary	14	11	11	-0-
	<u>TOTAL</u>	<u>807</u>	<u>641</u>	<u>-384</u>

### GENERAL MEMBER SERVICES

For the first time in many years, the Society had a net loss of members. A net loss of 404 corporate members was recorded at year end. This is in contrast to a net gain of 415 corporate members in 1982. Additionally, student membership was down 124 in contrast to a net loss of 85 in 1982. This represents a 1.6% loss in corporate membership and a 3.6% loss in student membership for an overall net decrease in membership of 1.8%.

Because of the economic and employment circumstances of the minerals industry in 1982, the SME-AIME Board approved a Working Party to develop recommendations on what the Society should do to enhance the job opportunities of its members. The Working Party continued its charge in 1983. At the SME-AIME Board meeting on March 9, 1983, the Board approved three recommendations from the Working Party: 1) Authorize a budget increase expenditure of up to \$4,200 to develop job listings and promote interviewing facilities at the 1983 Fall Meeting (essentially a repeat of the plan for the 1983 Annual Meeting); 2) Authorize a budget increase expenditure of \$2,700 to insert a one-quarter page institutional ad about the Society in the European and Asian editions of the Wall Street Journal; and 3) Continue the Working Party to enable it to search for further means to enhance employment opportunities.

The first recommendation was implemented in June when MINING ENGINEERING carried a full page notice reminding members and employers of the opportunity to place ads for positions wanted and positions open. A second full page was an open letter to SME-AIME members responsible for hiring -- a reprint of the letter mailed to over 9,000 members who were identified by their position titles as in a position to hire or influence hiring.

The letter asked each recipient if he would be interested in placing a "Positions Open" ad, if he would like to receive future similar mailings, and if he would be interested in interviewing candidates at the Fall Meeting. A final tally shows a total of 525 responses were received resulting in five position open listings, one classified ad, and two position open listings with interviews scheduled for Salt Lake City. This compares to the seven position open listings obtained from the Working Party's original effort for the 1983 Annual Meeting. A total of 13 position open ads (some received directly -- not as a result of the special mailing) were scheduled for the September 1983 issue of MINING ENGINEERING. The September 1982 issue carried 11 position open ads.

In addition, members placed 65 new positions wanted ads in the September issue and repeated 16 from the August issue for a total of 81. This is in contrast to the 36 positions wanted ads published the same time last year.

Though 18 people initially indicated an interest in listing an ad and/or interviewing, this was reduced after telephone contact. Telephone follow-up resulted in some of the following comments: plans delayed -- check back later; internal politics of countries forced a delay of plans; already has 'hot' prospect -- does not need to list ad or interview; needed to fill position by September; and two companies decided to run blind ads. Though the Working Party was hopeful that some SME-AIME members became employed as a result of this mailing, the Working Party concluded that the response to the survey did not justify the cost involved.

The 525 responses to the letter may be broken down as follows:

EMPLOYMENT SURVEY RESULTS		
Interested in Future Mailings	335	(330)*
Not Interested in Future Mailings	172	(196)
Listed Position Open, Not Interested in Interviewing	8	(6)
Listed Position Open, Interested in Interviewing	4	(1)
Interested in Interviewing	6	(4)
Total	525	(537)

\*Responses to the Working Party's initial effort in conjunction with the 1983 Annual Meeting.

The Working Party felt that inserting an institutional ad introducing the Society to the Asian and European readership of the Wall Street Journal would be beneficial to several aspects of the Society's operations. A special packet was prepared for response and included a media kit for MINING ENGINEERING, a publications list, a meeting mailer, and membership information. Responses to the ad totaled 17 and were received from the Philippines (2), Indonesia (2), Malaysia, Turkey, France, Syria, Iran, England, Belgium, Pakistan, Germany, China, Spain, Texas, and Oklahoma.

As part of its charge, the Working Party was asked to consider the development of a long-term continuing program including the need and desirability of a computer matching service. The Working Party surveyed five similar associations and found a variety of employment services. Most were categorized as passive with services similar to the Society's existing Employment Service in MINING ENGINEERING. Only the Geological Society of America conducted a year-round computer matching service at an estimated annual cost of \$20,000. The Working Party felt there was insufficient information to recommend a computer matching system.

At the 1983 Fall Meeting, the Board of Directors discontinued Working Party #70 and approved their final three recommendations: 1) Periodically publish an in-house ad reminding members and potential employers of the existing Employment Service, 2) Continue to pursue institutional type ads in the domestic mining press on a reciprocal ad arrangement basis, and 3) Refer the Society's role in employment service to the Long-Range Planning Commission.

In other general membership activity, the administration of the SME-AIME-sponsored insurance program was transferred to Smith-Sternau Organization Inc. The process began with the transfer of the term life plan and started a cycle that takes a full year to complete since each plan could not be transferred until the regular billing cycle for that plan takes place. In all plans, the members had the option of staying with the old plans and prior administrator or transferring to the new.

MEMBERSHIP DEVELOPMENT ACTIVITY

The number of unpaid members started out high in January and remained so throughout the year, despite continued collection efforts. The number of resignations at year-end was comparable to 1982, 693 vs. 691; however, corporate unpaid members was up significantly: 1,803 vs. 1,256 in 1982. Membership development activity to offset this loss included these mailings:

MEMBERSHIP DEVELOPMENT RESULTS

<u>Source</u>	<u>Number Mailed</u>	<u>Applications Received</u>
1981-82 Review of Alaska Mineral Resources	90	12
Catalog of South Carolina Mineral Producers	118	1
Registrants -- National Western Mining Conference	3,019	70
California Mining Association Membership Directory	179	4
1982-83 Idaho Mining Association Guide and Directory	102	4
Wyoming Mineral Producers	127	3
1982 Directory of Utah Mining Association and Member Companies	426	17
69th Report, Energy/Minerals Dept. Bureau of Mine Inspection	227	5
January 1982 Directory of Active Mines in Arizona	308	7
Denver Region Exploration Geologists' Membership List	135	4
Directory of Washington Mining Operations 1980-81	459	3
Minnesota Directory of Mineral Producers	454	1
Various Indiana Directories	287	0
Mineral Related Operations in Wyoming	55	0
1981 Directory of North Carolina Mineral Producers	121	0
1982 Directory of Montana Mining Enterprises	247	3
Tecnomin '84 Mailing List	<u>2,180</u>	<u>69</u>
TOTAL	8,534	203



This compares to the previous year's membership development activity as follows:

<u>MEMBERSHIP DEVELOPMENT ACTIVITY 1982-83</u>		
	<u>1982</u>	<u>1983</u>
Applications Mailed	7,669	8,534
Completed Applications Returned	80	203
% Mailed vs. Returned	1.04%	2.37%

As in previous years, the most successful membership development tool for 1983 was the annual President's letter encouraging members to recruit at least one new member. This program produced 365 new applications; however, the results of this effort were down slightly from the previous year's total of 373.

The Membership Committee reviewed the four Membership Development Recognition Programs the Society has traditionally sponsored and eliminated two of them this past year. The Division Membership Program was for the Division recording the highest percentage membership growth. The Committee noted that this is not an award for Division achievement in membership development, as there is little activity in this area. Generally, the changes in the Division membership are attributable to interest changes among the membership and graduating students selecting a field of interest. Thus, the Committee voted to discontinue the Division Membership Development Recognition Program.

The Local Section Membership Development Program is for the Section recording the highest percentage membership growth. It was noted that due to geographical shifts in the membership, a Section could be honored with this award without having an active membership development program. At the Fall Meeting an alternative plan for Section recognition was reviewed. After reviewing the alternate plan, the Committee expressed concern that giving an award for Local Section growth on the basis of percentage discriminated against the larger Sections. Likewise, it was noted that an award based on the actual number of new members discriminated against the smaller Sections. After considering the various options, the concept of a Local Section Award was questioned. The Committee concluded that it was more appropriate to focus recognition efforts on those individuals who recruit new members. The Committee voted to discontinue the Local Section Membership Development Recognition Program.

Recognition in the other two membership development programs continued as follows:

Annual Membership Development Recognition Program: This program was developed to recognize the individual SME-AIME member who contributed the most to the Society's membership development activities within the year October 1, 1982,

to September 30, 1983. For 1983 this honor again went to Gordon C. Presley of the Colorado Section. Mr. Presley will be recognized at the SME-AIME Dinner at the Annual Meeting for adding 253 new members. He receives round-trip air fare to the meeting, free room, and two sets of social function tickets. Recipients of this special form of recognition have included three individuals:

1975	Charles N. Speltz (54)	1980	Gordon C. Presley (66)
1976	Charles N. Speltz (39)	1981	Gordon C. Presley (321)
1977	Charles N. Speltz (23)	1982	Gordon C. Presley (131)
1978	Charles N. Speltz (24)	1983	Gordon C. Presley (253)
1979	Joy J. Merz (50)		

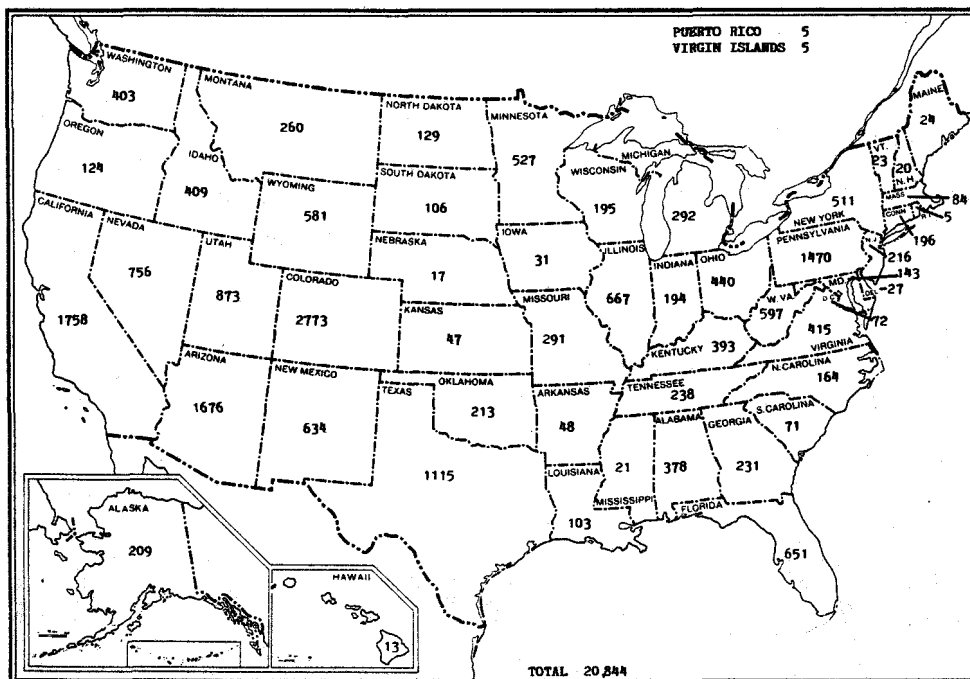
Continuing Membership Development Recognition Program: Also in its ninth year, the continuing program has had 2,360 participants and recruited 6,361 new members since the program's inception in 1974. Forms of recognition and number of participants by year follow:

	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
1-Set of Coasters	-	-	-	-	-	269	271	216	234	990
5-Paper Clip Holder	17	25	30	30	25	29	34	21	16	227
10-Desk Clock	4	6	16	6	12	13	16	10	12	95
25-Pen/Pencil Set	1	1	1	2	5	1	7	-	3	21
50-Special Plaque	1	-	-	-	1	1	-	-	-	3
100-Life Membership	-	-	1	-	-	1	-	-	-	2

#### MEMBERSHIP STATISTICS

In 1983 SME-AIME membership decreased from 28,734 to 28,206 for a net loss of 1.8%. This compares to last year's growth of 1.16%.

#### U.S. MEMBERSHIP BY STATE As of January 1, 1984



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 TOTAL CORPORATE MEMBERSHIP BY DIVISIONAL INTEREST
 

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<u>AS OF</u>	<u>COAL</u>	<u>INDMD</u>	<u>MSE</u>	<u>MPD</u>	<u>EDUC</u>	<u>ECON</u>	<u>STUD</u>	<u>UNCLASS</u>	<u>TOTAL MEMBERS</u>	<u>CORPORATE MEMBERS</u>
1/1/1968	1,377	776	7,074	2,284	83	273	773	1,849	14,489	13,716
1/1/1969	1,435	793	7,423	2,384	86	300	1,005	2,001	15,427	14,422
1/1/1970	1,436	795	7,782	2,416	90	301	995	2,360	16,175	15,180
1/1/1971	1,413	811	8,035	2,448	95	321	864	2,655	16,642	15,778
1/1/1972	1,501	838	8,288	2,538	99	348	1,170	3,059	17,841	16,671
1/1/1973	1,518	851	8,348	2,541	104	364	1,129	3,474	18,329	17,200
1/1/1974	1,517	834	8,151	2,517	106	349	1,442	3,413	18,329	16,887
1/1/1975	1,615	824	8,222	2,506	104	354	1,872	3,500	18,997	17,125
1/1/1976	1,860	864	8,517	2,638	115	388	2,726	3,835	20,943	18,217
1/1/1977	2,749	999	10,345	3,116	149	502	3,608	1,004	22,472	18,864
1/1/1978	3,098	1,085	10,812	3,267	146	527	4,427	849	24,211	19,784
1/1/1979	3,485	1,079	11,240	3,395	177	563	4,612	729	25,280	20,668
1/1/1980	3,818	1,108	11,856	3,566	186	585	4,019	739	25,877	21,858
1/1/1981	4,243	1,249	12,523	3,819	176	632	3,425	719	26,786	23,361
1/1/1982	4,721	1,314	13,191	4,085	183	710	3,564	636	28,404	24,840
1/1/1983	4,919	1,385	13,298	4,094	201	753	3,479	605	28,734	25,255
1/1/1984	4,868	1,356	13,148	3,992	212	742	3,355	533	28,206	24,851

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 MEMBERSHIP OUTSIDE U.S. BY DIVISIONAL INTEREST
 

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	<u>COAL</u>	<u>INDMD</u>	<u>MSE</u>	<u>MPD</u>	<u>EDUC</u>	<u>ECON</u>	<u>UNCLASS</u>	<u>TOTAL</u>
Africa	14	15	180	58	4	13	9	293
Asia	26	22	245	80	9	23	18	423
Australia	126	16	399	106	4	13	10	674
Canada	122	33	818	264	10	43	20	1,310
Central America	0	1	18	3	1	5	0	28
Europe	54	55	327	138	7	23	13	617
Mexico	2	5	83	18	2	10	5	125
South America	19	23	310	114	5	31	8	510
West Indies	1	1	15	7	1	1	1	27
TOTAL	364	171	2,395	788	43	162	84	4,007

## MEMBERSHIP BY GRADE

AS OF	TOTAL MEMBERS	CORPORATE MEMBERS	FULL MEMBERS	ASSOC. MEMBERS	JUNIOR MEMBERS	ASSOC. JUNIOR MEMBERS	STUDENT MEMBERS
1/1/1968	14,489	13,716	9,892	2,214	1,610	-0-	773
1/1/1969	15,427	14,422	10,328	2,372	1,722	-0-	1,005
1/1/1970	16,175	14,575	10,548	2,355	1,672	-0-	1,375
1/1/1971	16,642	15,320	10,863	2,482	1,975	-0-	1,322
1/1/1972	17,841	16,671	11,343	2,840	2,488	-0-	1,170
1/1/1973	18,329	17,200	11,410	3,054	2,736	-0-	1,129
1/1/1974	18,329	16,887	11,203	2,950	2,734	-0-	1,442
1/1/1975	18,996	17,124	11,096	3,036	2,992	-0-	1,872
1/1/1976	20,943	18,217	11,506	3,210	3,501	-0-	2,726
1/1/1977	22,472	18,864	11,867	3,411	3,506	80	3,608
1/1/1978	24,632	20,205	12,631	3,671	3,782	121	4,427
1/1/1979	25,280	20,668	12,476	3,597	4,426	169	4,612
1/1/1980	25,877	21,858	12,813	3,766	5,059	220	4,019
1/1/1981	26,786	23,361	13,817	3,792	5,492	260	3,425
1/1/1982	28,404	24,840	14,487	4,251	5,800	302	3,564
1/1/1983	28,734	25,255	14,547	4,462	5,926	320	3,479
1/1/1984	28,206	24,851	14,414	4,489	5,654	294	3,355

## CORPORATE MEMBERSHIP CHANGES 1975-1983

	1975	1976	1977	1978	1979	1980	1981	1982	1983
<u>Losses</u>									
Deaths	124	132	141	178	122	135	128	153	152
Resignations	188	276	241	385	367	506	812	691	693
Drops	1,032	1,137	653	858	1,213	987	1,143	1,256	1,803
Unaccepted	44	23	11	—	16	51	70	42	14
<b>TOTAL</b>	<u>1,388</u>	<u>1,568</u>	<u>1,046</u>	<u>1,421</u>	<u>1,718</u>	<u>1,679</u>	<u>2,153</u>	<u>2,142</u>	<u>2,662</u>
<u>Gains</u>									
Total	2,480	2,215	1,966	2,305	2,908	3,182	3,632	2,557	2,258
<b>NET</b>	<u>1,092</u>	<u>647</u>	<u>920</u>	<u>884</u>	<u>1,190</u>	<u>1,503</u>	<u>1,479</u>	<u>415</u>	<u>(404)</u>
Corporate Members	18,217	18,864	19,784	20,668	21,858	23,361	24,840	25,255	24,851
Student Members	<u>2,726</u>	<u>3,608</u>	<u>4,427</u>	<u>4,612</u>	<u>4,019</u>	<u>3,425</u>	<u>3,564</u>	<u>3,479</u>	<u>3,355</u>
<b>TOTAL</b>	<u>20,943</u>	<u>22,472</u>	<u>24,211</u>	<u>25,280</u>	<u>25,877</u>	<u>26,786</u>	<u>28,404</u>	<u>28,734</u>	<u>28,206</u>

### SUSTAINING MEMBERS PROGRAM

An unusually large number of members remained unpaid at year-end. The additional collection efforts initiated in 1982 were continued in 1983. The first dues billing was mailed in September, with a follow-up in January, and a final notice in March. Members who do not pay their dues by the end of March are considered delinquent.

By the end of April, a comparison between 1982 and 1983 showed an increase in unpaids from 1,925 to 2,620, up 695. At year-end, the margin of unpaids from 1982 to 1983 had narrowed, but still remained unusually high. Corporate unpaids are up 547 (from 1,256 to 1,803), loss of members through death is down 1 (from 153 to 152), and resignations are up 2 (from 691 to 693). These numbers, combined with the total gain of new corporate members (which was down 299 from 2,557 to 2,258), result in a net loss of 404 or 1.6%. This compares to a net gain of 415 or a 1.7% corporate membership growth in 1982.

A total of 2,339 members were identified as unpaid when the 1984 dues billing was mailed on September 19, 1983. Consequently, these members did not receive a 1984 billing. A total of 78 people paid their 1983 dues after the 1984 billing was made. These members will receive a supplementary dues bill in January; the other 2,261 were dropped from membership on December 31, 1983.

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#### UNPAID MEMBERS: 1982 vs. 1983

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	<u>Unpaid 1982 Dues Dropped 12/31/82</u>	<u>Unpaid 1983 Dues Dropped 12/31/83</u>
Members	1,256	1,803
Students	<u>417</u>	<u>458</u>
TOTAL	1,673	2,261

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### ADMISSIONS ACTIVITY

Admissions activity dropped for the fourth year in a row and is back to the pre-1979 level. In 1981 the Committee considered 2,393 applications (including new admissions, change of status requests, and reinstatements) for a monthly average of 199. This average dropped to 140 in 1982 with a total of 1,690 applications. This average dropped again in 1983 to 121 and a total of 1,455 applications.

Of the applications considered, the Committee returned some to the applicants for the following reasons:

Pending information on how experience and position relate to the mining industry	41
Pending information on how many years in responsible charge	5

As soon as further information was received, these applications were sent back to the Committee for reconsideration.

Comparative statistics follow:

APPLICATIONS REVIEWED BY SME-AIME ADMISSIONS COMMITTEE						
	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
January	146	201	173	187	165	67
February	135	94	118	176	218	140
March	157	159	269	275	105	85
April	116	140	130	151	77	98
May	154	123	385*	382	210	235
June	127	156	376*	234	149	196
July	64	122	147	178	124	107
August	57	88	120	191	139	101
September	95	126	118	0**	110	112
October	84	137	199	296	146	98
November	113	140	281	179	123	129
December	99	99	190	144	124	87
TOTAL	<u>1,347</u>	<u>1,585</u>	<u>2,506</u>	<u>2,393</u>	<u>1,690</u>	<u>1,455</u>

\*Increased activity due to one-time change of status mailing, reminding Associate Members of qualifications and procedures for change of status to full Member.

\*\*Meeting cancelled due to lack of a quorum.

#### LOCAL SECTION ACTIVITY -- NATIONAL SERVICES

The Society continued its program of providing national services to the Local Sections, including the administration of a complimentary mailing label program at a 1983 cost to the Society of \$19,900.

Each month, a complete master galley printout, containing the mailing addresses of all members in a Section, is sent to the Section Secretary. This galley contains all members of the Section, including AIME members who are actually affiliated with one of the other Constituent Societies of AIME. Additionally, for ease of reference, the galley is coded with an asterisk (\*) for new members and a "c" that indicates some type of change in the member's record, usually an address change.

Local Sections are provided with monthly mailing labels in a peel-off form. These labels may be used for any official mailing, but are most generally used by the Sections to announce a meeting. Of the 71 SME-AIME Local Sections, 63 utilized the service in 1983.

In the spring of 1981 three new computer services were announced to Local Sections: dual section assignments, affiliate members, and Local Section dues designation. All three services continue to be utilized.

Via the dual section assignment program, members may maintain two Sections on their computer records: one for administrative purposes, i.e., an automatic

assignment based on location to be used for membership counts and rebates and the second one to be an optional Section assignment for personal preference only. Members who select a second Section are included on the mailing labels of both Sections.

Computer capabilities were expanded to incorporate affiliate members in the data base. The purpose behind this program is the capability to include Local Section affiliate members on the mailing labels provided to that Section. These "affiliates" have been included in the data base and are accessed for Local Section use only. Thus far, 11 Local Sections have added affiliate members to their mailing lists.

Since some SME-AIME Sections collect local dues and include only local dues paying members in their local activities, a system was designed to accommodate this. Local Sections may now provide SME Headquarters with a list of local dues paying members. All Section members will be included on the monthly galley printout and will continue to be included in all national member services. However, only those people designated by the Section will be included on the Section's mailing labels. This service has been particularly useful to the larger Sections.

A bound directory containing the names and addresses of officers and committee chairmen of all SME-AIME Sections and Subsections is updated and distributed to the Sections semiannually. The directory has assisted the Sections with inter-Section correspondence.

To assist Local Sections in their administrative activities, four manuals are published and distributed to the Local Sections as soon as new officers are elected. Since there is no consistent date among the Sections for officer elections, these manuals are distributed monthly as Section elections are reported. These manuals include: Local Section Operations Manual, Membership Development Manual, GEM Operations Manual, and Student Chapter Operations Manual. The Section Chairman is encouraged to review these manuals and then distribute them to his appropriate committee chairmen.

As part of the Society's program for new Local Section Chairmen, a news release on his election is sent to two of his local newspapers. To participate in this program, the Chairman is invited to send to SME-AIME Headquarters a current resume, two black and white pictures, and the names and addresses of two local newspapers. The Chairman is encouraged to send a copy of the published announcement of his election to Headquarters to become a permanent part of the Section's file.

CORPORATE MEMBERSHIP CHANGES BY REGION (1978-1983)							Change
	1978	1979	1980	1981	1982	1983	(1982-1983)
Eastern	4,851	4,999	5,264	5,567	5,864	6,334	+470
Central	3,882	4,107	4,571	4,686	4,703	4,730	+ 27
Western	9,803	10,202	11,015	11,772	11,951	11,825	-126

## LOCAL SECTION ACTIVITY -- BY REGION

Eastern Region: The Eastern Region Section Representatives meeting, originally scheduled on June 4, 1983, in conjunction with the spring meeting of the Georgia Section, was rescheduled due to low Section representation. The meeting was rescheduled at the SME-AIME Fall Meeting as a joint meeting with the Central Region. Since involvement of members in regional activities continues to be a concern of the Eastern and Central Region Representatives, suggestions for increasing attendance were shared at the Fall Meeting. Section Representatives felt that Section meeting notices should be exchanged by Section Chairmen as a method of better communication. It was also noted that future meeting dates could be publicized in the Coming Events column of MINING ENGINEERING, but this requires a 3-month lead time.

The Eastern Region's request that a responsibility chart be included in the Local Section Operations Manual was approved by the Executive Committee of Section Representatives at the Annual Meeting. But the Committee referred to all Regional Meetings for consideration the request that an overview of National versus Section activities be printed in MINING ENGINEERING and the Local Section Operations Manual.

At the Executive Committee Meeting of Section Representatives, approval was given to the Philadelphia Section's request that administration of the Section be transferred from TMS-AIME to SME-AIME. This request was subsequently approved by the Board of Directors and the transfer of administration has been completed, thereby increasing the membership of the Eastern Region by approximately 375.

A relatively inactive Lehigh Valley Section may receive renewed impetus from a Section member who has indicated an interest in reactivating it. A manual of operations and a list of members was forwarded as well as an offer for further organizational assistance from SME-AIME President Louis Kuchinic, Jr.

In routine bylaw action, the Carolina Section changed their official year from July to January. The Pennsylvania-Anthracite Section updated its bylaws, cleared up ambiguous language, and added a list of responsibilities of Section officers and committee chairmen.

Central Region: The Central Regional Section Representatives held a joint meeting with the Eastern Region Section Representatives at the SME-AIME Fall Meeting. The representatives took advantage of the opportunity to exchange ideas concerning recruitment of new members and increased member activity in Local Section meetings, topics of concern to representatives from both regions.

The Section Representatives reviewed the Local Section Officer Directory, specifically the officer listings, publication schedule, and inclusion of Student Chapter Officers. The result of their discussion was to maintain the publication in its current form.

Prior to the Fall Meeting, the South Texas Minerals Section requested that a discussion of an increase in Local Section rebates from \$.75 per member to \$2 per member be included on the agenda. A letter from the Section Chairman explaining the Section's request was read at the meeting. However, since the



letter had not been received prior to the meeting, the Representatives concluded it could not receive proper consideration. The item was referred to the next meeting of the Central Regional Section Representatives.

The Representatives discussed the appropriateness of the Section GEM Committee assisting state agencies in establishing regulations for the mining industry and concluded it was appropriate for the Committee to interact with state agencies to recommend individual members who might be in a position to assist them.

The Trinity Section undertook a complete review of its bylaws. Changes included a further definition of the aims and purposes of the Section, the establishment of two classes of membership -- Active and Affiliate -- the use of the word Chairperson rather than Chairman, the split of the Secretary/Treasurer position into two offices, the election date of officers was moved up a month, and the incorporation of a set of procedures for payment of Section financial obligations. In bylaw action earlier in the year, the Upper Mississippi Valley, the Upper Peninsula, and the Minnesota Sections all revised their bylaws to incorporate additional, previously unassigned counties into their jurisdiction.

Western Region: Student membership was a topic of considerable interest at the Fall Meeting of the Western Regional Section Representatives. The Section Representatives recognized the promotion of Student Members as one means of strengthening section membership. It was felt that once the interest of a Student Member in SME-AIME is established, his interest will continue after graduation.

At the Annual Meeting, the Executive Committee of Section Representatives approved the Western Region's recommendation that the basis on which SME-AIME is contemplating separate incorporation be made available to the membership, but concluded that the request for publication of a condensed financial report of SME-AIME was already satisfied by the President's Report published each April in MINING ENGINEERING.

Bylaw revisions were made by the Colorado Section and the Colorado Plateau Section. In addition, the Colorado Plateau Section combined their Constitution and Bylaws into one document. The Colorado Section's GEM Committee is developing a Speaker's Bureau to provide an information source on the mining industry and to offer speaker training for those individuals participating in the program.

In order to better serve its membership and decrease mailing and printing costs, the Arizona Conference requested that the Society provide them with labels broken down by their technical divisions: Hydrometallurgy, Mineral Dressing, Mining Geology, Open Pit Mining, Smelting, and Underground Mining. This breakdown will allow the Conference to publicize divisional meetings only to those specifically interested in that technology.

At the Fall Meeting, the Boise Section proposed that English units be used as primary units in the text of MINING ENGINEERING with metric values placed in parentheses. The Representatives debated this at length, resulting in a motion that consideration be given to reporting articles in the units in which the project was accomplished without the alternate value provided. This

recommendation will be referred to the Executive Committee of Section Representatives.

The Representatives discussed the difficulty of making Section officers aware of the structure and services provided by SME-AIME and acknowledged the pertinent information contained in the Local Section Operations Manual. A motion was passed that SME-AIME Headquarters send a welcoming letter to each new officer as soon as elections are reported and indicate to each officer that an Operations Manual was sent to the Chairman.

In evaluating the Local Section Officer Directory, the Section Representatives reviewed officer listings, schedule of publication, and inclusion of Student Chapter Officers, and concluded that there should be a limited number of positions listed and that Student Chapter listings be restricted to a chapter listing and information regarding the faculty advisor.

The Western Regional Chairman reported that the Long-Range Planning Commission had received a proposal that the Western Region be divided, but a vote at the Fall Meeting established there were no Section Representatives in favor of dividing the Western Region.

#### STUDENT AFFAIRS ACTIVITY

At the time of the 1984 dues billing, the middle of September, 262 students graduating in 1983 had not yet responded to three requests for graduation and/or employment information. A final mailing and continued follow-up reduced this number to 165 who were dropped at year-end for not supplying this required information. Additionally, another 458 were dropped for nonpayment of dues. This brought the year-end total of student members to 3,355 representing a loss of 124. This compares to last year's 196 and 417 who were dropped for nonresponse to graduation information and nonpayment of dues, respectively. Contributing to the higher loss of student members was a lower number of new applications (from 1,432 in 1982 to 1,318 in 1983), down 114. Student member statistics for the last six years follow:

<u>STUDENT MEMBERSHIP CHANGES 1978-83</u>						
<u>Losses</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Deaths	--	8	2	--	--	--
Resignations	27	--	--	--	--	--
Drops	807	1,126	1,213	676	613	623
Changes of Status	812	1,085	1,020	1,005	904	819
TOTAL	1,646	2,219	2,235	1,681	1,517	1,442
<u>Gains</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Total	1,831	1,626	1,641	1,820	1,432	1,318
NET	185	(593)	(594)	139	(85)	(124)
TOTAL STUDENT MEMBERS	<u>4,612</u>	<u>4,019</u>	<u>3,425</u>	<u>3,564</u>	<u>3,479</u>	<u>3,355</u>

## DIVISION ACTIVITY

Coal Division: The major emphasis of the Coal Division continues to be on the Scholarship Endowment Fund solicitation as the Division believes there is a greater need for these scholarships. However, the goal of \$500,000 set at the 1982 Fall Meeting, may be adjusted due to economic conditions in the coal industry. To aid the drive for funds, brochures were developed for both the individual and corporate campaigns. Dr. Thomas V. Falkie will devise a plan to contact small coal companies, engineering companies, and suppliers, and a mechanism was considered to contact the Local Sections to make the Fund Drive more visible to the Coal Division members. These plans will be developed at the Annual Meeting.

The Coal Division's Scholarship Endowment Fund has reached almost \$150,000, about 30% of the \$500,000 goal. With a beginning balance of over \$51,000 as a result of a transfer from the Division Scholarship Fund, a total of \$73,076 was received from 21 corporate contributions/pledges, and \$13,772.50 in contributions/pledges from 122 individuals. Contributors will be recognized during the 1984 SME-AIME Annual Meeting Coal Division Luncheon, and the five companies that donated \$5,000 or more will have a profile published in MINING ENGINEERING facing the "Coal Division Views" column, if possible, with a note of explanation.

This year the Division again allocated \$19,100 for scholarships and awarded it to eight qualified schools as block grants to be dispersed at their discretion. Qualified schools are those granting mining and/or mineral engineering degrees that are ABET accredited and engaged in coal-related activities. The new procedure for scholarship disbursement implemented at the Annual Meeting calls for a 10-step procedure involving establishment of a scholarship amount by the Division Executive Committee at the Annual Meeting; distribution of the funds to the schools in April; with selection and final approval of the recipients by year-end. The procedures also provide a system whereby the Division's Scholarship Selection Committee can insure that the objectives of academic excellence and candidates for the coal industry are maintained.

At the Annual Meeting the Division voted to add a fourth requirement -- SME-AIME membership -- to the criteria for the Division's Young Engineer Award. In compliance with the Young Engineer Award Rules, the proposed amendment was presented to the SME Board of Directors, who approved it at the Fall Meeting.

Refinements continue to be made on the Best Paper Award procedures with the hope that improvements will be seen in the presentations at the technical meetings and the technical quality of the papers. Due to problems with the initial procedures a new set of procedures was introduced at the Annual Meeting whereby session chairmen evaluated papers based 75% on technical content and 25% on presentation with consideration given only to preprinted papers. At the Fall Meeting R. V. Ramani was asked to arrange a committee framework for the award, propose a change to the bylaws incorporating the award, and determine an appropriate tangible award for the winner. The report will be given at the Annual Meeting.

Coal Division programming for the 1983 Annual Meeting included fourteen sessions and two joint sessions, one with M&E and one with MPD. Division programming for the Fall Meeting included seven sessions and two joint

sessions with M&E and MRMC. Plans for the 1984 Annual Meeting include nine sessions and one joint session.

Industrial Minerals Division: The Division scholarship program received another boost early in the year when an additional \$15,000 contribution was received, bringing the fund principal to \$25,000. Following discussion at the Annual Meeting, the Scholarship Committee was given the authority to award up to two scholarships as long as the total value does not exceed the interest available from the scholarship fund. The Division will continue to evaluate its scholarship program and may introduce revised guidelines for applicants.

The Gerald V. Henderson Memorial Scholarship of the Industrial Minerals Division contains sufficient funds to present a single award of \$2,000 or two \$1,000 awards early in 1984. The nomination deadline was the end of November.

At the Fall Meeting there was discussion of the possibility of two new awards to be presented by the Division. The two awards would be the "Best Paper" and the "Young Engineer" awards. There was discussion on the desired qualifications for each award and the necessity of changing the Division bylaws. Information was sent to the Division Executive Committee on similar awards given by the other Divisions for further discussion at the next meeting.

Updating of the Division brochure, necessitated by changes in dues and the statements regarding member grades, was accomplished in time for the Fall Meeting where copies were available at the membership booth. The brochure promotes membership in the Industrial Minerals Division and stresses the activities and accomplishments of the Division.

Division bylaw changes were approved by the Board at the Annual Meeting. The changes added an alternate member to the SME-AIME Membership Committee for a two-year term and specified that Division representatives on the SME-AIME Nominating Committee must be officers or past officers of the Division; alternates may be members of the Division Executive Committee.

The cooperation between the Society of Economic Geologists (SEG) and the Division did not materialize as anticipated after the Annual Meeting. During the summer, Headquarters received notification of SEG's dissatisfaction with the joint luncheon at the Annual Meeting and their request that a separate SEG Luncheon be held on Tuesday at the Annual Meeting. Because this was seen as a direct conflict, the Division Executive Committee requested that the Board of Directors deny the request. The Board upheld the Division's request and SEG scheduled a breakfast on Wednesday.

As an aid to incoming committeemen, the Division is preparing a handbook detailing the role and responsibilities of the Division Chairman and is updating a report on the technical sessions presented by the Division at Fall and Annual Meetings since 1974. The latter will be made available to the incoming Program Chairman-Elect and members of the Program Committee.

Plans for the Bauxite Symposium at the 1984 Annual Meeting are progressing satisfactorily. Additionally, the Division is sponsoring another four sessions at the Annual Meeting.

Mining and Exploration Division: Division appointments were analyzed during 1982 due to inconsistencies in the procedures and bylaws. At the 1983 Annual

Meeting, recommendations to remedy the problem were presented to the M&E Executive Committee and subsequently bylaw changes were recommended to the SME-AIME Board and were approved. As a result, a new External Awards Nominating Committee was formed which will provide a formal mechanism for nominating qualified candidates who are eligible for general SME-AIME awards that do not originate within the M&E Division and for AIME and appropriate awards made by outside organizations.

The M&E Scholarship Award plan took a major step forward at the Fall Meeting when the M&E Division Executive Committee approved the plan that had been presented by the ad hoc committee chaired by past Division Chairman Robert R. Dimock. The proposal was presented by mail ballot to the SME-AIME Board of Directors where it also received approval. If donations are received as planned, the first scholarship will be announced at the 1985 Annual Meeting.

Dr. Jan M. Mutmanský will prepare a report, defining the roles and obligations of each unit committee position, for approval at the Annual Meeting. This will then be sent to each new appointee to prevent any misunderstandings caused by incomplete briefing by the unit committee chairmen making the appointments.

The M&E program at the Fall Meeting included five sessions and two symposia. The symposia were "Applied Mining Geology" and "Heap and Dump Leaching Practice." Additionally, the Division programmed a joint session with the Coal Division and three joint sessions with MPD for the "In Pit Crushing and Conveying Mini-Symposium," and one joint session with the Minerals Resource Management Committee. At the 1984 Fall Meeting, the Geomechanics Unit Committee program will include "Geomechanical Applications in Underground Hardrock Mining."

Mineral Processing Division: At the Annual Meeting, the Division formed a new Extractive Metallurgy technical committee to provide programming encompassing research, engineering, production, maintenance, and management practices in the extractive metallurgical fields that are closely related to mining and milling operations. The first session was presented at the Fall Meeting.

On further technical committee expansion, the MPD Executive Committee received a proposal for the formation of a Fine Particle Processing Committee to handle the abundance of programming in the various aspects of fine particle processing and the recent worldwide activity in this area. A committee was appointed to study the proposal and report their findings to the Executive Committee for action.

At the Fall Meeting, MPD Chairman Kenneth L. Clifford reported that TMS has expressed a desire to discontinue its involvement in the joint Environmental Control Committee. MPD sentiments were that programming in this area is important to MPD members and the suggestion was made to reconstitute the committee as an MPD Environmental Control Committee.

Fund-raising activity continues in the Division to raise approximately \$3,000 to strike the Gaudin Award medals from the silver donated by the Hecla Mining Co. Solicitation of additional contributions will continue in an effort to make the award self-sustaining.

This year's scholarship fund drive was down considerably from the previous year. The drive took in about \$4,600 but required an expenditure of about \$2,500 for postage and printing, resulting in a net gain of approximately \$2,100. Consideration was given at the Fall Meeting of putting a ceiling of about \$1,800 on the amount of money used for scholarship solicitation in any one year. Nine applications were submitted for the 1984 scholarships, with the first place recipient being awarded \$2,000 plus an expense-paid trip to the Annual Meeting; five \$1,000 scholarships were also awarded.

At the Annual Meeting, the Division Executive Committee voted to establish an MPD Young Engineer Award to recognize young graduate engineers working in the mineral processing industry who have exhibited engineering professionalism. The recommendation was presented to the Board at the Fall Meeting and approved. The Award will be implemented in 1985.

The Division programmed 10 sessions for the Fall Meeting including two sessions in the mini-symposium, "Grinding Performance of Large Ball Mills." The "In Pit Crushing and Conveying" mini-symposium was programmed with the M&E Division. At the Annual Meeting MPD will be conducting 11 sessions in the "Control '84" Symposium, plus 15 other sessions, and seven joint sessions with TMS. Programming for 1986 will include a symposium on "Concentration and Dewatering" as well as a set of "Keynote - Fundamentals" sessions honoring Professor Nathaniel Arbitor on his 75th birthday. Looking to the future, Division Chairman Clifford suggested that it would be desirable for the Division to do some long-range planning for the next decade. An ad hoc MPD Long-Range Planning Committee was formed, spearheaded by Gerald V. Jergensen, Martin C. Kuhn, and Chester A. Rowland.

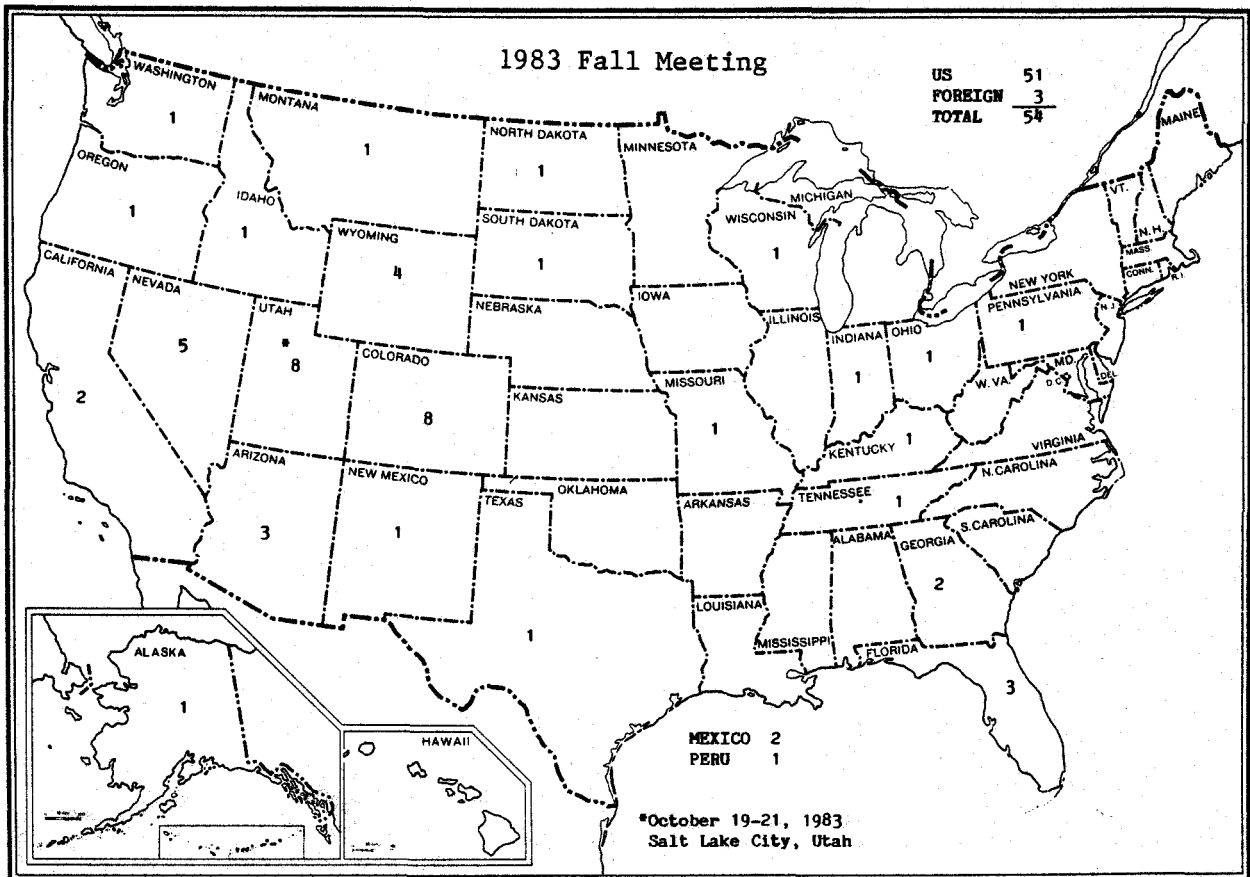
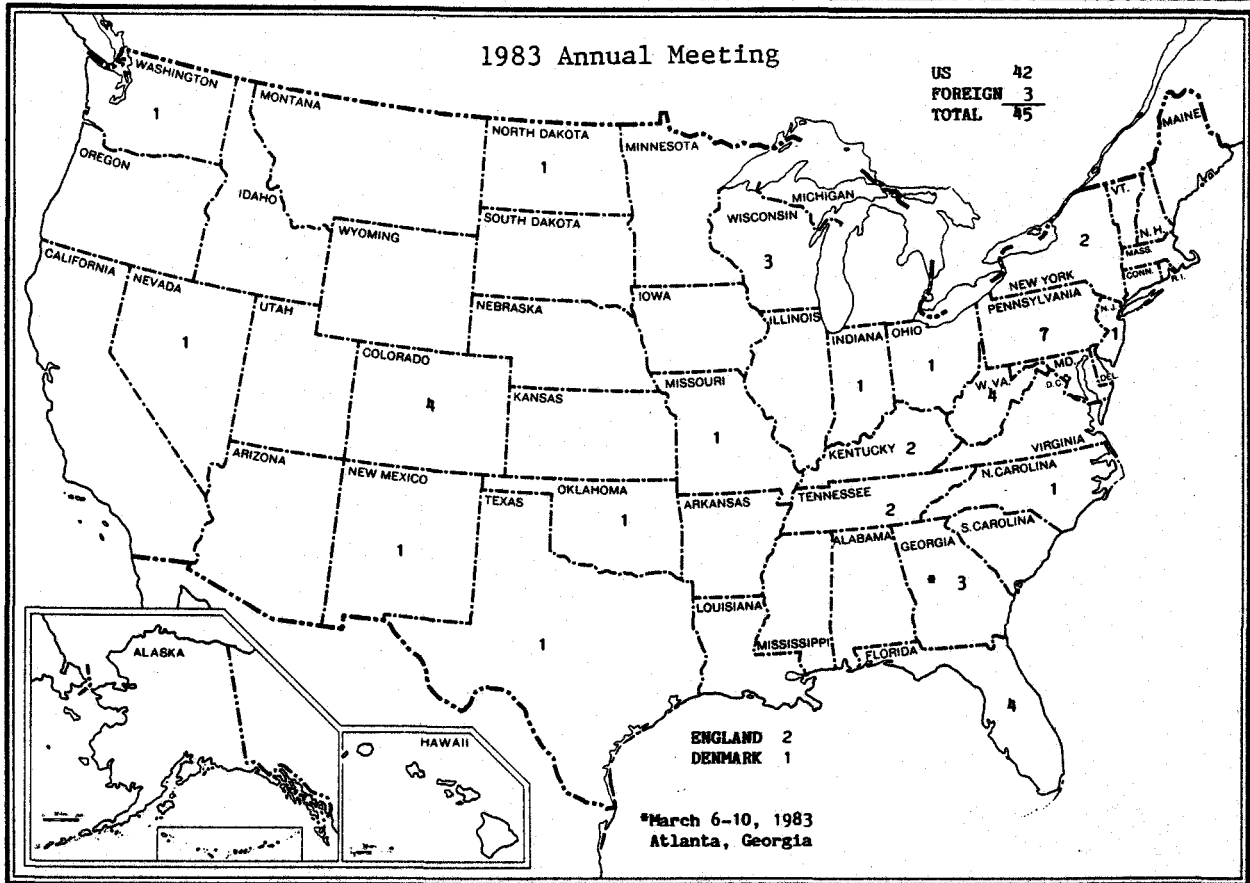
#### EDUCATIONAL ACTIVITY

The implementation of the reorganized Education Board was completed. Major activities are handled by the Committees of the Board; however, the Board itself continues to be involved in the announcement and ranking of the Engineering Foundation Research Initiation Grants. One of the recipients of a \$17,000 grant for 1983-84 was SME-AIME member Christopher J. Bise, assistant professor of mining engineering at The Pennsylvania State University. Dr. Bise submitted a proposal entitled "Mathematical Modelling of Longwall Mining Systems." Proposals for the 1984-85 grants will be ranked by the Education Board for submission to AIME.

Continuing Education: A total of 99 registrants attended the five short courses sponsored by the Society in 1983. Maps indicating the geographical breakdown by meeting, as well as a chart indicating the breakdown by meeting and course follow on the next pages.

The Committee discussed the possibility of presenting P. E. Review, Parts I and II, as a single four-day session. Potential problems with such a presentation were discussed, such as the survival rate of attendees, possible scheduling restrictions for Fall Meetings if the course was always to be presented prior to the P. E. exam, and the prolonged time required away from university classes for five instructors. However, after further consideration the Committee felt that if the four-day course was presented at Fall Meetings prior to the exam, the timeliness of the course could make it quite successful. Before making a decision, the Committee decided to review the enrollment figures for the P. E. Review, Part I course in Los Angeles.

SHORT COURSES--GEOGRAPHICAL DISTRIBUTION



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 1983 SME-AIME SHORT COURSE ATTENDANCE
 

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ANNUAL MEETING

Economic Principles for Industrial Mineral Property Valuations	21
Longwall Mining	12
Professional Engineer Review Course in Mining Engineering, Part I	12
	—
Total, Annual Meeting	45

FALL MEETING

Professional Engineer Review Course in Mining Engineering, Part II	34
Utilization of the Micro-Computer in the Economic Analysis of Mineral and Energy Projects	20
	—
Total, Fall Meeting	54

TOTAL 1983 SHORT COURSE REGISTRATION 99

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At the Fall Meeting, the Committee approved the staff recommendation that the contract with Education for Management not be signed. The organization had approached the Society offering to market management-related correspondence courses. Contrary to pre-contract discussions, the firm submitted a contract that involved the Society in course registration and absorption of bad debts.

The subcommittee formed at the Annual Meeting to identify new correspondence courses that could be offered by SME-AIME reported on two potential areas: management courses and Society-developed courses based on SME-AIME publications. The Committee concluded that management courses are readily available elsewhere, but the subcommittee was to continue to investigate the potential for providing courses based on SME-AIME publications.

Other subcommittees were formed at the Annual Meeting to identify potential courses in various technical areas. The subcommittee on mineral exploration identified 13 potential courses; five were submitted for Committee consideration.

The Committee questioned the effectiveness of the separate short course mailer. To help determine the cost effectiveness, the Committee asked that the short course evaluation form include a question on where the registrant heard about the course. This information will be tallied in the future for Committee consideration.



Short course plans for 1984 include the following:

1984 Annual Meeting	P. E. Review, Part I Introduction to Microcomputers
1984 Fall Meeting	P. E. Review, Part II or P. E. Review, Parts I and II Improving Longwall Mining Face-to-Face Moves Essentials of Geological Mapping for Geotechnical and Mine Planning Purposes Applied Mineral Economics for Geologists

Education Planning: The main responsibility of this committee is to examine the problems that exist in mineral education and propose to the Education Board or one of its committees appropriate actions to correct these problems. The Committee reviewed the report "A Working Plan for Attacking the Engineering Faculty Shortage," published by the American Association of Engineering Societies. Since the Society's membership in AAES implies SME-AIME endorsement, no further action was proposed. However, the Committee requested that the plan be referred to MINING ENGINEERING for possible editorial coverage.

The Committee questioned whether there was any standardization for engineering program enrollment restrictions. They contacted the American Society for Engineering Education who reported that no formal restrictions are in place; however, the universities are in effect restricting enrollments by various internal means.

After considerable discussion at the Annual Meeting as to what the Society's stance should be in the accreditation process, the Committee established that ABET reports (Volumes 1 and 2) should be received by the Society. These reports would be received for the purpose of providing a "data base" and thereby permitting the Society to be "intelligently advisory" to schools seeking help with their programs. The Committee was firm in its resolve that the data should not be used for the purpose of ranking schools and/or programs, nor for weeding out weak schools.

Educational Issues: Though this Committee was deeply involved in the development of SME-AIME Program Criteria by discipline, the full report of this activity appears under the ABET activity section.

The election and confirmation of ABET visitors was a primary concern to the Committee this year. A subcommittee evaluated the present system and recommended the following changes which the Committee and Education Board approved. The nomination of new visitors would be through the Educational Issues Committee. A new nomination form was designed to help establish if the nominee meets minimal requirements to be an ABET visitor. This process will be carried out annually to fill vacancies on the visitor list. No nomination will be carried over.

The nominees will then be contacted to obtain detailed information concerning their qualifications to be a visitor. Additionally, at this time it will be established if the nominee is willing and able to devote the time necessary to carry out the responsibilities of an ABET visitor. This information will be required of new nominees, as well as visitors who have served and are being considered for another one-year appointment.

Final screening of the nominees will be handled by the new ABET Visitor Selection Committee. This new Committee, which consists of the SME-AIME Representatives to ABET, will receive the documents collected in the initial screening process and will also receive copies of the Program Evaluation Reports written by individuals who functioned as visitors during the year. Additionally, verbal comments on an individual visitor's performance will be obtained from the visitor's team chairman. Based on this information, the Committee will evaluate the performance of past visitors and the potential of the nominees to become ABET visitors. For those individuals not involved in a program evaluation during the year, a performance review will not be made. This person would be retained on the SME-AIME visitor list for another year and would be evaluated only after a program inspection.

Final election will be by the SME-AIME Executive Committee, meeting in closed session with the ABET Visitor Selection Committee. Training for ABET visitors will no longer be conducted at the Annual Meeting. A special training session will be conducted shortly after the meeting.

In other activities, the Committee received a status report on the "Introduction to Mining" textbook. Due to a general disagreement on the philosophy of what should be included in the text, a subcommittee was formed for further evaluation of the project. At the next Committee meeting, discussion centered on the need for the text, the audience, the best way to proceed, and finally whether the Committee was the appropriate forum for discussion and preparation of an outline for the text. The Committee concluded that there was a need for an introductory text, but that textbooks were not written by committees. The Committee agreed to review any proposals submitted for the book, but that further action should be initiated by the person who wished to prepare the text.

Acting on ABET's encouragement to prepare a document on advice to ad hoc visitors, the Committee assigned responsibilities for preparing a document for each discipline. Also, agreeing with ABET's recommendation, the Committee endorsed the concept that industrial visitors be encouraged to serve as visitors for the Technology Accreditation Commission after serving as visitors for the Engineering Accreditation Commission.

The need for the development of program criteria for Mining Engineering Technology was addressed by the Society's representative to the Technology Accreditation Commission. The concern was expressed that a considerable number of mining engineering technology programs were being evaluated by accreditation boards other than ABET. For purposes of clarifying the role of the mining engineering technologist as neither the role of an engineer substitute nor that of a vo-tech graduate, the need for specific accreditation criteria was stressed. The Committee agreed with this recommendation and asked Mr. George R. Eadie to contact other technology departments to request participation on an ad hoc basis to draft the criteria.

Educators' Forum: At the Annual Meeting, the Forum discussed the long-term educational arena and commented that SME-AIME could play an active role particularly in the following areas: 1) in helping to develop guidelines on laboratory equipment; 2) in developing age charts showing the age of active mining engineers and expected dates of retirement; and 3) in reviewing the PE exam results and suggesting areas in which preparation could be improved.

At the Fall Meeting, several presentations were made to the Forum, including an analysis of a mining industry forecast, a discussion on the legislation for the reauthorization of the state Mining and Mineral Resources Research Institutes, and a report from the Engineering Advisory Committee of the National Science Foundation.

In 1979, Fenvesy & Schwab, Inc., a general management consulting and executive recruiting firm, was commissioned by a group of major mining companies to conduct a worldwide study of the supply and demand of mining engineers to the year 2000. The study began at the height of the North American shortage. One major objective of the study was "to identify means by which business and educational institutions may cope with and alleviate a future shortage of mining engineering talent."

However, the findings ran directly counter to expectations. The study concluded that the current oversupply will not disappear with economic recovery. A summary of the report was published in the September 1983 issue of MINING ENGINEERING.

Mr. H. V. S. Tingley, executive vice president of Fenvesy & Schwab, reported on the complex methodology used to gather data for the study and to obtain the supply figures for the industry overall and for specific minerals and metals. While admitting that the study had been commissioned just prior to the recession when mining companies were experiencing a shortage of mining engineers, Mr. Tingley assured the Forum attendees that the results were still applicable in the current economic climate and that cooperative efforts on the part of industry and academia were necessary to prevent a repeat of the "boom and bust" syndrome to which the industry is prone. In anticipation of the educators' reaction to the study, Mr. Tingley indicated that the decision to publish had been made in the hope that awareness of the facts might lead to a workable solution. In response to questions as to why MINING ENGINEERING carried the study which could in the opinion of some attendees, "irreparably damage" the schools, the reply was that placing the study before the membership provided an opportunity for SME-AIME to respond. It was noted that since the results had been distributed to the industry sponsors, ignorance of the data being used by industry might actually be more detrimental to the schools. The Forum decided to formulate an official response to the study and asked that it be given the same coverage in MINING ENGINEERING as the study received.

A report was presented to the Forum on the legislation for the reauthorization of the State Mining and Mineral Resources Research Institutes (MMRRI). It was explained that the legislation before Congress separates the reauthorization of the MMRRI from the Surface Mining Act and that with proper support the legislation should be approved. Since congressional support will be instrumental for passage, educators were urged to work through their university deans and presidential liaisons in contacting legislators in the House and Senate to champion the bill. Educators were provided the details of the legislation and the names of people to contact for further information.

The funding procedures of the National Science Foundation were reviewed and submission of more proposals in the minerals area was encouraged. It was further explained that recipients of funds granted through the Minerals and Primary Materials Program are, for the most part, proposals in mineral processing engineering.

Student Member Affairs: The Committee reviewed the history and conduct of the two previous Career Planning Workshops and decided that the workshop should be conducted on an annual basis. It was determined that the next workshop should be scheduled for the 1984 SME-AIME Fall Meeting. A subcommittee was formed to undertake this project.

The Committee debated the merits of SME-AIME involvement in the Annual Intercollegiate Mining Contest. It was reported that the competition began in 1979 with seven teams in competition and has grown to 22 teams from 15 schools competing in the 1983 contest. The competition is supported mainly by the western mining schools and generally organized by the students and SME-AIME Student Chapters. It was noted that the competition is a "back to basics" program, and not an engineering competition.

There was some concern expressed about the preponderance of involvement by the western schools and the appropriateness of the SME-AIME endorsement given the lack of involvement by the eastern mining schools. The Committee concluded that the proposal should stand on its own, since it is an established and ongoing program. Should the eastern schools organize some competition in the future, it would be judged on its merits. After further discussion, the Committee referred to the Education Board its recommendation that SME-AIME officially recognize the contest, that the participating Student Chapters be allowed to use their SME-AIME travel allowance to attend, that SME-AIME present a certificate to the winning chapter, and that the award be made retroactive to the contest's origin in 1979.

The Education Board considered these recommendations at length. Objections included the sentiment that sponsoring the contest was not in keeping with the overall mission of the Society, that the activity often became little more than a beer-drinking contest, and the Society's liability as a sponsor was not clear. Rebuttals to these concerns were that the contest had survived several years without SME-AIME sponsorship and that said sponsorship is really a reward for the students' endeavors and to allow easier access to the contest through the use of the travel allowance. Faculty members at the meeting who had attended a past contest endorsed the sponsorship and noted that the contest was a return to basic mining skills and was enjoyed by the participants.

The Education Board approved the recommendations for referral to the SME-AIME Board of Directors.

At its meeting on October 18, 1983, the SME-AIME Board of Directors tabled the three recommendations based on a letter of advice from SME-AIME counsel. The Student Member Affairs Committee then discussed the possibility of pursuing the matter as two separate issues: 1) certificate presented by SME-AIME to contest winners and 2) approval for Student Chapters to use their SME-AIME travel allowance to attend the contest. Legal advice on the Society's liability in this limited involvement will be sought prior to further Committee discussion.

Scholarship activity continued to be a main concern of the Committee. Currently, three of the four SME-AIME Divisions sponsor annual scholarships. In response to an inquiry by the Education Board, the fourth Division, Mining and Exploration, appointed an ad hoc committee to prepare a plan for an M&E Scholarship for evaluation. The Committee considered selecting a Best Society Scholar from among the winners of the various Division scholarships but review of each Division's scholarship criteria elicited no common basis on which to grant such an award. However, to provide Society recognition of these outstanding students, the Committee suggested, and the Education Board recommended for referral to the SME-AIME Board of Directors that all Division Scholarship winners be exempt from dues payments for the duration of their Student Membership and for their first year of Junior Membership. At the Board of Directors Meeting on October 18, 1983, the Board voted to refer this recommendation to the divisions for action at their discretion.

As part of its charge, the Student Member Affairs Committee undertook a complete review of the career guidance material distributed by the Society and developed a schedule to update it.

The Committee has given considerable attention to the amount and use of the student travel funds. The Committee is investigating past data on Student Chapter participation at national meetings to determine if an increase in travel allowance would result in increased student attendance. A subcommittee was formed to evaluate the Society's current policy on student travel allowance based on 1983 Annual and Fall Meetings. An interim report of the subcommittee was presented at the Fall Meeting, with a full report due at the 1984 Annual Meeting.

The competition for this year's student contests included 11 entries in the Graduate Paper Division, 8 in the Undergraduate Division, and 18 in the Student Chapter contest. Recipients were determined at year-end.

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#### SME-AIME STUDENT CONTEST WINNERS

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##### Outstanding Student Chapter

University of Arizona	(Winner)
University of Alabama	(1st Runner-Up)
West Virginia University	(2nd Runner-Up)
Ward Beetham Student Chapter, University of Wisconsin--Platteville	(3rd Runner-Up)

##### Outstanding Student Paper: Undergraduate

"Comparison of Pneumatic Powered and Hydraulic  
Powered Rotary-Percussive Rock Drills"  
Warren T. Lewis, The University of Arizona

##### Outstanding Student Paper: Graduate

"Selective Flotation of Dolomite from Apatite  
After Two Stage Conditioning with Sodium Oleate as the Collector"  
Rajen Chanchani, University of Florida

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## ACCREDITATION BOARD FOR ENGINEERING AND TECHNOLOGY (ABET) ACTIVITY

The Accreditation Board for Engineering and Technology (ABET) made some significant changes this year that affected all Participating Bodies. Correspondingly, AIME made a change that placed renewed emphasis on the Society's ABET activities. Though AIME is the Participating Body, representation to ABET is directly through the Societies. AIME's approval of the Ad Hoc Transition Committee's recommendation that the Constituent Societies participate directly with outside activities on all matters that do not require a common voice endorsed the Society's operating procedures.

The most significant ABET activity has been the development and approval of Program Criteria. Previously, Society guidelines carried equal weight with ABET criteria; however, due to ambiguous language and contradictory interpretations by program visitors, ABET began to look for a better way for societies to provide guidance on accreditation matters. The concept of supplementary criteria was developed so that engineering programs would meet general ABET criteria and also be required to meet the supplemental criteria developed by the society assigned curricular responsibility for that discipline. At the ABET Board Meeting in late 1982, the Board voted to adopt, in principle, the use of supplemental criteria; however, they postponed the date of implementation. The Board also endorsed the substitution of the term program criteria instead of supplemental criteria.

The Board voted to implement program criteria for curricular objective and content in September 1984 and program criteria for curricular guidelines, faculty, student body, and administration in September 1985. The present Society guidelines will continue through 9/84 for curricular objective and content and through 9/85 for curricular guidelines, faculty, student body, and administration. At these dates the Society guidelines will disappear and may be converted to advisories to visitors at the Society's discretion.

However, this timing was not in effect for SME-AIME program criteria because they were not submitted in time. At year-end, the Society's Program Criteria for Geological Engineering and Mining Engineering were published by ABET for comment and distributed to the schools. Comments will be considered up to May 15, 1984. The ABET Board of Directors will then determine, with the advice of the Engineering Accreditation Commission (EAC) and based on comments received, the content of the adopted Program Criteria, which will become effective following the ABET Annual Meeting in the fall of 1984 and will first be applied by the EAC for accreditation actions during the 1985-86 academic year and the following years.

At the ABET Executive Committee Meeting in July 1983, the Executive Committee noted that the Engineering and Technology Accreditation Commissions had accepted program criteria submitted for a number of programs in different disciplines. Previously, "guidelines" were only accepted for disciplines with five or more accredited programs. If that minimum was not reached, ABET's general criteria or nontraditional criteria would be used for accreditation purposes. The rationale was to allow freedom of experimentation while the curricula for a particular engineering discipline was being developed. The Executive Committee voted to maintain the number five as the minimum number of accredited programs in order for program criteria in a given discipline to be considered. This action affected three SME-AIME programs: geophysical engineering, mineral engineering, and mineral processing engineering. At the ABET

Board Meeting in October, the Society introduced a motion to exempt these three Society programs from this requirement since the Society had approved guidelines for these programs. However, the ABET Board elected to uphold the Executive Committee's action. The Society is now considering incorporating these three programs into the approved program criteria for Geological and Mining Engineering.

A continuing concern of ABET is the quality and preparedness of the accreditation visitors. The ABET Board affirmed the importance of Participating Bodies' training sessions for visitors; in addition, it encouraged societies to prepare a written "advice to ad hoc visitors." It was voted by the Board that if such an advice is drafted, it should be reviewed and monitored by the EAC or TAC and carry a clarifying disclaimer to the following effect: "Nothing in this document should be interpreted to add to or subtract from the ABET general or program criteria. Accreditation decisions are based solely on these criteria as published by ABET."

The ABET Board of Directors received two separate requests for the incorporation of ethics into the engineering curriculum. The National Council of Engineering Examiners recommended that the criteria for accrediting programs in engineering be amended to include formal courses on ethics in the profession. The National Society of Professional Engineers, based on a resolution passed by the Engineering Deans Council, requested that ABET respond to the concept of "imbedding professionalism concepts in the accreditation criteria." A committee was appointed to examine the issue.

In 1983, a total of 88 accreditation visits were conducted by the Engineering Accreditation Commission with 353 programs requesting accreditation. Of this 353, 18 were minerals-related engineering programs. A total of 170 programs at 52 institutions were visited by the Technology Accreditation Commission. Of these, two were mining programs.

ABET celebrated its 50th Anniversary during its Annual Meeting last October. Since its inception in 1932 as the Engineers' Council for Professional Development (ECPD), ABET has established itself as the organization representing the engineering profession in matters relating to the development, maintenance, and improvement of quality engineering education in the U.S. Recently the recognition process by the U.S. Department of Education was completed. ABET was recommended for, and received, a four-year recognition (the maximum allowed under their present rules) with a report due in two years on the validity and reliability of accreditation criteria.

#### PROFESSIONAL REGISTRATION COMMITTEE ACTIVITY

Ways to improve preparation of the Mining/Minerals Engineering examination for registration was a major thrust of the Committee's activities in 1983. Two Committee members attended a National Council of Engineering Examiners' (NCEE) workshop in February and spent several days working through a recommended procedure for evaluating examination questions and developing scoring plans. As a result of a report on the workshop given the Committee at its March meeting, it was decided to implement the workshop approach for developing examinations during the Los Angeles meeting in February 1984. At that time the Committee will develop the examination to be given in October 1985. A matrix for each examination, as recommended by NCEE, will be implemented. The matrix will list clusters of tasks conducted by significant numbers of licensed engineers

in the SME-AIME disciplines plotted against the groupings of technical specialty areas in which those engineers work. The number of questions in each subject area will be chosen to conform with the various grids in the matrix.

One of the criticisms of the present examination has been the lack of an adequate number of questions in two areas, geological engineering and mineral processing/extractive metallurgy. As a result of a meeting in May with John D. Macfadyen and several people at the University of Missouri-Rolla, including Paul E. Munger, incoming president of NCEE, the Committee wrote NCEE asking that SME-AIME be allowed to increase the number of questions in several syllabus areas -- Exploration, Ground Control, and Mineral Processing. Presently SME-AIME provides 19 questions; an expanded syllabus would include 4 additional questions. At its meeting in October the Committee voted to include an additional question in Exploration and three additional questions in Mineral Processing. Negotiations with NCEE regarding the syllabus continue.

Early in January 1983, members of the Committee met at SME-AIME Headquarters to grade 1008 questions from the October 1982 examination. In May, Lee R. Rice, Bruce R. Palmer, and several people at the US Bureau of Mines in Denver graded about 80 questions from examinations given in April. Although the specialty examinations, of which Mining/Mineral Engineering is one, are scheduled for administration only in the fall of each year, some states are required by law to offer all examinations twice a year. Some states also will give the specialty examinations in the spring if asked to do so by candidates.

At the March meeting the Committee chose questions for the October 1984 examination. Each of these then were assigned to members of the Committee for checking, and in some instances, solutions. At the same time the Committee reviewed the status of a model examination to be included in the Study Guide the Committee is preparing, selecting additional questions and making solution writing assignments.

An important function of the Committee is monitoring developments regarding changes in the registration process. SME-AIME has a representative on the Professional Examinations Advisory Committee (PEAC) of NCEE. In March the Committee's Vice Chairman, Robert W. Plekarz, became the Society's representative, serving a two-year term. He attended the NCEE Annual Meeting in August and a joint meeting of the PEAC and Uniform Examinations and Qualifications Committee (UEQ) in October.

There has been considerable discussion in the last few years regarding possible changes in the examination and registration process. NCEE conducted a Task Analysis study by polling registered engineers. Results of the study are being used to improve conduct of examination preparations and scoring. The matrix approach is based on the Task Analysis. A committee of the American Association of Engineering Societies (AAES) has been polling engineering societies in regard to a certification program. The Committee advocates a universal-type examination for registering engineers with a further certification step to be performed by the specialty discipline organizations. This approach to registration was rejected at the PEAC-UEQ meeting in October.

Another suggested approach to the registration process was a single-book concept whereby all the examinations (major and specialty disciplines) would be combined in a single book. At present NCEE offers states two books, one for



major disciplines and one for the specialty disciplines. Although the NCEE committees gave tentative approval for a single book at their April meeting, the concept was rejected in October.

The SME-AIME Committee continues to monitor possible increases in recertification activities of various states. At present Iowa is the only state with a formal recertification program. A few states require a statement of professional activities when registration is renewed. Recertification legislation in Minnesota may be enacted in the near future.

The Committee in October heard a report on reciprocity (one state granting registration to a person registered in another state without examination). Several states will grant reciprocity, but require the candidate to write and pass an examination pertaining to the state's statutes and seismic activities (the latter applies particularly in California).

At its meeting in October the Committee learned that Illinois, the only state not currently using the examinations provided by NCEE, will participate in the NCEE Fundamentals of Engineering and Principles and Practice of Engineering examinations beginning in April 1984. This means that all candidates for registration will be taking the national examination in their discipline.

The first major task to be undertaken in 1984 will be grading the October 1983 examination. Committee members will meet at SME-AIME Headquarters the first week in January to grade approximately 1500 questions, almost 500 more than were graded in 1983.

#### LECTURE SERIES ACTIVITY

In its 17th year, the Henry Krumb Lecture program continued as a popular source of speakers for the SME-AIME and TMS-AIME Local Sections. The Krumb Lecture series is named after Henry Krumb, who died in 1958, and was a pioneer in applying engineering practices to mining. With nearly 70 SME-AIME Local Sections interested in the series, and with budget restrictions limiting the speakers to five Sections each, the program continues to be oversubscribed. Lecturers for 1983 were John A. Herbst, professor of metallurgy, College of Mines and Mineral Industries, University of Utah; Bernard H. Kear, scientific advisor, corporate research, Exxon Research and Engineering Company; and Malcolm J. McPherson, professor of mining engineering, University of California-Berkeley. Topics included:

"Advances in Comminution"

"Automatic Control of Mineral Processing and Extractive Metallurgical Operations"

"Evolution of Gas Turbine Materials and Processes"

"New Thoughts and Old Fallacies in the World of Mine Ventilation"

The lecturers made 17 appearances to SME-AIME and TMS-AIME Local Sections in the United States.

The Australasian Institute of Mining and Metallurgy (AusIMM) and AIME conducted a joint conference in Australia in 1978. The conference resulted in a

surplus of \$60,000. The AusIMM proposed that the earnings from the money be used to establish and pay the expenses for a Distinguished Speaker Exchange Program between the Institutes.

Speakers have included:

Robert H. Merrill	1980 - AIME
Sir James Foots	1981 - AusIMM
Harold W. Paxton	1982 - AIME
Sir Russel Madigan	1983 - AusIMM

Sir Russel Madigan, Deputy Chairman of CRA Limited, on a lecture tour of the western U.S., spoke on "The Minerals Industry—Where Next?" Sir Russel spoke at the following functions: San Francisco Local Section meeting, a University of Arizona special seminar, Black Hills Local Section meeting, student group at the Montana College of Mineral Science and Technology, Montana Local Section meeting, and the Welcoming Luncheon at the SME-AIME Fall Meeting and Exhibit. Activities along the way included a tour of Magma Copper Company's San Manuel Mine in Tucson, AZ; Homestake Mine in Lead, SD; and the Golden Sunlight Mine near Whitehall, MT.

The 1984 lecturer will be Nelson Severinghaus, Jr., 1984 President of AIME. He will tour Australia and New Zealand in the fall of next year.

#### GOVERNMENT, ENERGY, AND MINERALS (GEM) COMMITTEE ACTIVITY

GEM program activities have been diverse through its ninth year. Primary emphasis has been on the development of an SME-AIME slide program for use by Local Sections.

At the Fall Meeting, the Committee discussed the various methods of presentation of a slide program and decided the program should consist of a package of slides with a script that could sell for about \$35 each. A subcommittee was then formed to outline the concept of the slide presentation. Though the Committee will consider this outline at the Annual Meeting, basically it consists of a composite of the various ideas presented by the subcommittee. Tentatively, the four major subject areas are: 1) End Uses of Mining Products, 2) Environment, 3) Mining Operations: Past and Present, and 4) Miscellaneous, which includes the percentage of the work force in the mining industry; additional side benefits, such as service industries; and ownership of minerals: private vs. government.

Following a comprehensive review of the GEM Award Program, the Committee approved its continuation for another three years with the following recommendations: 1) more publicity is needed to spur interest in the award; 2) the form requesting nominations from Local Sections must be easy to complete; and 3) if after three years the award activity is still poor, the GEM Award Program should be discontinued. The form was redone for the fall announcement of the GEM Award and the award was publicized in additional ways; however, there were no nominations received from the Local Sections.

The Committee expressed its disappointment in the overall lack of activity by the existing GEM Committees. Much of the current disinterest was attributed to a change in atmosphere over the years and lack of dedicated individuals to continue the goals of this program.

In an effort to renew interest in the GEM Committee, the Committee intends to invite the Chairmen of Local Section GEM Committees to the next GEM Committee meeting. The agenda will include an item for input by the Local Section GEM Committees.

At the Fall Meeting, the Committee received information from some concerned members about U.S. Senate Bill 269 which proposes the orderly sale of silver from the stockpile as an alternate to the auction system. The bill proposes to create a new market for silver through the sale of silver dollars to the general public. Upon conclusion, the group was asked to mail information concerning the bill to SME-AIME Headquarters for an evaluation of the best means to distribute it.

The Committee reviewed a proposal requesting support in the planning and design stage of a major public television series, "The Ways of the World," which will be designed to educate the public on how earth resources and processes affect the daily activities and affairs of the world. The Committee approved (without financial commitment) endorsement of the series through the planning stage. Should further endorsement be requested, the proposal will be directed to the SME-AIME Board.

The Committee has maintained its close liaison with the Mineral Information Institute (MII). During the summer, MII hosted a two-day Professional Scientific Organizations Workshop in Denver. Organizations participating included the following: U.S. Geological Survey, American Geological Institute, American Association of Petroleum Geologists, Geological Society of America, Wyoming Mining Association, Minerals Exploration Coalition, WAAIME, Women in Mining, and the Colorado Section. The Society was represented by SME-AIME President-Elect Frederic L. Kadey, Jr. The meeting focused on the Institute's goals and status reports on various programs. MII has undertaken a major project, "What's Below the Earth Below?", a proposed series of articles for airline magazines, accompanied by talking guides for pilots, which will discuss mining and minerals of America. The Society, through the GEM Committee, has offered to assist in the technical review of the articles. The next phase of the program will be a request for economic support from the various societies on the order of \$2,000-\$5,000.

At the Fall Meeting, MII requested that SME-AIME consider conducting a solicitation of SME-AIME members for the purpose of developing a support fund for the work of the Institute. The SME-AIME Executive Committee reaffirmed its support of MII, but declined to solicit the Society membership for funds for another organization. Subsequently, at the Board of Directors meeting, the Board voted that MII be provided free mailing labels and free advertising space in MINING ENGINEERING, at the publisher's discretion, and that the staff review the content of materials to be sent to the membership.

#### MINERALS RESOURCE MANAGEMENT COMMITTEE (MRMC) ACTIVITY

Following action by the AIME Board in late 1982, the MRMC reported the elimination of the AIME Economics Committee and acknowledged its role to cover all economic issues of interest to the Society's membership.

The Committee maintained its role in programming economic-related sessions. Eight MRMC sessions were conducted at the Annual Meeting, including one joint session with the M&E Division and two joint sessions with IndMD. The Fall

Meeting programming consisted of five sessions, including one joint with the Coal Division, one with IndMD, and one with the M&E Division. Future programming plans include six sessions in Los Angeles at the Annual Meeting and six sessions in Denver at the 1984 Fall Meeting. Preliminary consideration has already been given to program plans for the 1985 and 1986 Annual Meetings and the 1985 Fall Meeting.

The MRMCM has undertaken the responsibility for a symposium to be conducted at the 1985 Annual Meeting. The symposium, "Finance for the Minerals Industry," will consist of eight sessions: Financial Evaluation for the Mining Industry, Analysis of Risk, Mineral Operating Agreements, Financial Structuring, Sources of Funding, Tax and Accounting, Financial and Strategic Planning, and Financial Management Case Studies. A proceedings volume is also planned.

In other action at the Annual Meeting, the MRMCM voted to continue to conduct its committee meeting prior to the SME-AIME Program Committee meeting.

At the Fall Meeting, the Committee agreed that the incoming MRMCM chairman would develop a proposal for a mail ballot by MRMCM members recommending that registration fees be waived or other consideration be given to nonmember authors who are solely participating in the session in which they are an author. If the proposal is accepted by the MRMCM, it will be submitted as a recommendation to the SME-AIME Board of Directors.

Operating procedures for the MRMCM were reviewed and approved at the Fall Meeting. The operating procedures detail the representation on the MRMCM, a general summary of the principal activities of the Committee, and a time frame schedule of activities.

#### HONORS AND AWARDS ACTIVITY

The following honors and awards were selected for presentation during 1983 and 1984:

AIME Honorary Member

Wayne L. Dowley

Howard N. Eavenson Award

Robert E. Murray

Antoine M. Gaudin Award

Leonard G. Austin

Hal Williams Hardinge Award

Nelson Severinghaus, Jr.

Daniel C. Jackling Award

Richard J. Robbins

1983 Henry Krumb Lecturers

John A. Herbst

Malcolm J. McPherson

Percy W. Nicholls Award

E. Minor Pace

Robert Peele Award  
Stanley M. Miller

Erskine Ramsay Medal  
E. Minor Pace

Rock Mechanics Award  
M. D. G. Salamon

Robert H. Richards Award  
Roshan B. Bhappu

SME Distinguished Member Award

Lawrence Adler  
William H. Callahan  
Donald D. Carr  
George B. Clark  
Frank F. Espie  
Ralph E. Kirk  
Roald E. Lindstrom  
Robert E. Murray  
D'arcy A. Shock  
Ponisseril Somasundaran  
Raymond E. Zimmerman

SME Publications Board Awards

Christopher J. Bise  
Carroll O. Brawner  
Scott G. Britton  
Yoginder P. Chugh  
Maurice C. Fuerstenau  
Larry A. Haas  
Stanley J. Lefond  
Bruce R. Palmer  
Richard L. Sanford  
Wayne C. Shanks, III  
Robert Stefanko  
Yih-Jian Wang  
D. Robert Weir

William Lawrence Saunders Gold Medal  
John C. Kinnear, Jr.

Arthur F. Taggart Award  
Malcolm D. Flavel

Young Engineer Award  
John R. Ackerman

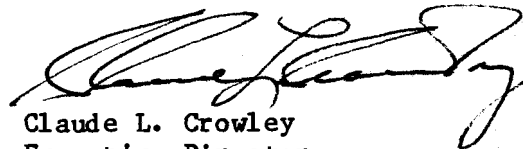
AIME LEGION OF HONOR  
(50 Years of Continuous Membership)

The following 38 SME-AIME members will become members of the AIME Legion of Honor during 1984:

R. E. Barthelmy  
Roland F. Beers  
Gordon K. Bell, Jr.  
George D. Bellows  
Ihsan R. Berent  
Edward J. Bloom  
Weston Bourret  
James H. Cazier  
Robert G. Clarke  
Austin B. Clayton  
William S. Cole, Jr.  
John Edgar  
David L. Evans  
Frank W. Fruitman  
Thomas E. Gillingham  
Carl F. Gommel  
William A. Hardy  
Robert F. Hippler  
Parke A. Hodges

Fred J. Hoff  
Allan H. James  
O. W. Jarrell  
Charles L. Knaus  
Harry B. Leonard  
Richard J. Lund  
Robert E. Mead  
Robert C. Meaders  
Albert H. Mellish  
Frank R. Milliken  
Manoah L. Pate  
Stuart S. Pullar  
George G. Ritchie  
Alan A. Sharp  
Harold A. Steane  
Richard E. Stoiber  
Bruce I. Thomas  
F. William Wessel  
Paul F. Yopes

Respectfully submitted,



Claude L. Crowley  
Executive Director

## THE METALLURGICAL SOCIETY OF AIME

REPORT

of the

EXECUTIVE DIRECTOR

1983

TMS-AIME had an excellent year in 1983 with significant growth in several key areas. In spite of the continuing recession, which has had severe impact on the major metals industries, the Society showed great resiliency by going against the general downward economic trends and achieved real successes in membership growth, quality and quantity of meetings and expanded publication services.

Financially the Society finished the year with a \$16,287 surplus based on an income of \$2,055,784. This is the first year that the annual operating budget topped the 2 million dollar mark.

Membership growth in 1983 was up 10.0% with records broken in new member recruitment of 1,371 and student members of 1,271. These are significant gains based on a year-end total membership in 1982 of 10,162. In recent years, and again in 1983, particular emphasis was placed on the Automatic Junior Members (graduating seniors) recruitment. An all time record of 518 seniors opted to continue their membership in the Society. Total year-end membership now stands at 11,165, an all-time high.

Greater attention was paid to our Local Section and Student Chapters in 1983. Several Presidential visits were made by Milt Wadsworth and the staff. Interest in forming new local sections was shown in Denver and New Jersey and efforts are underway to formally establish sections in early 1984.

Total publications income accounted for 65% of our annual budget in 1983. This is a significant member service and also produced a large portion of our non-dues revenue through subscriptions and advertising.

Major efforts were made in 1983 to improve the technical quality of Journal of Metals. We feel this was accomplished as we received numerous written and verbal compliments about its general quality and interesting articles. We continued to balance editorial material between physical/mechanical (54%) and extractive/process (45%) for 1983. A total of 1,288 pages were published in JOM, an increase of 84 over 1982. JOM advertising, through concerted staff efforts, increased from \$108,000 in 1982 to \$130,000 in 1983. Growth was primarily in the display advertising the key area we want to grow because it brings in more advertising dollars. We now have one salesman representing JOM nationwide and we feel this approach benefits our sales. JOM subscriptions remained constant for 1983 at just under 3,000 which accounts for \$163,000 in revenue. Non-member circulation promotions were targeted at the aluminum, titanium, copper and steel industries, Japanese education institutions and international technical libraries.

Program abstracts for our three major meetings were published in JOM as a prime member service and meetings promotion tool. The Directory, one of our most successful services, was published as a separate publication and now includes information on our Honors & Awards, membership activities/services, meetings, committee listings, local section and student chapter information, as well as an alphabetical and geographical listing of our total membership with telephone numbers.

The Journal of Electronic Materials (JEM) was published for the second year by TMS. We do all production, subscription maintenance and development and fulfillment in-house at TMS. Subscriptions grew from 810 to 1,067 with income up \$13,000 due to our promotion activities in subscription agency catalogs for libraries and the business community.

Book production continued as a major part of our publication services. We improved the editor instruction manual and held special training sessions for editors at our Annual and Fall Meetings. Some sixteen new titles were published for income of \$328,000. We have eight books now in various stages of production at TMS headquarters with nine more books in the editorial stage.

Book reprints also improved in sales and quantity which is an indication of their attractiveness as a service to our members. We had 255 requests for multiple article reprints, an increase of 105 over 1982 for an income of \$41,000.

The Paper Selection program remained strong in 1983 with some 5,400 individual papers sold for an income of \$12,129. Total income for books, paper selections and book reprints was \$391,000, up 19% over 1982.

Metallurgical Transactions continued in its role as the archival journal of the Society. Met Trans A - Physical Metallurgy subscriptions were 4,153 while Met Trans B - Process Metallurgy were 2,265. The number of pages published was 3,336, of which 2568 were in Met Trans A and 768 in Met Trans B. Overall, Met Trans achieved a breakeven financial performance for an income of \$554,480 and expenses at \$554,063.

Meetings continue to be a major strength of TMS, particularly at the national level. In 1983, we presented some 1,626 papers in 242 sessions through the Annual Meeting, Electronic Materials Conference, Fall Meeting, Sulfide Smelting Symposium, Extractive Metallurgy Fall Meeting and Topical Conference on Ferritic Alloys for Use in Nuclear Energy Technologies.

Attendance at all our meeting showed improvement over 1982 and was very gratifying in light of the economic climate and restrictions on travel which adversely affected attendance at many technical society meetings. Total attendance at TMS meetings in 1983 reached 3,993.

Annual Meeting-----	1787
EMC-----	692
Fall Meeting-----	1068
Sulfide Smelting Symposium---	335
Ferritic Alloys Conference---	111



New abstract forms were developed which improve our processing and assignment to technical sessions. New reporting forms were developed for the Technical Committees to submit their session requests. Also, new procedures and forms were implemented to improve our ability to cosponsor meetings with other organizations and in so doing, have TMS be a part of the technical programming for such meetings.

Through the new Regional Meetings program, plans were initiated for the first two regional meetings to be held in 1984. Brent Hiskey from Kennecott Copper in Salt Lake City will organize the Intermountain Regional Meeting, with Ed Starke at the University of Virginia leading the Southern Region Meeting organizing committee.

A great deal of work went into the transition of the old Program Committee structure to the new Program Committee and its three sub-committees for Operation, Planning & Liaison and Review & Awards. Program Chairman, Fred Pettit, should be cited for his efforts, along with Bob Reynik and John Perepezko. All the Technical Committees have been contacted and informed of the changes and I am pleased to report responded favorably to providing representatives to man the three sub-committees. In this way our plan to start 1984 with a "running start" will happen so there is no gap in our programming activities.

TMS is at a very crucial time in its growth and development as a professional technical society. AIME, through the Transition Committee and After Transition Committee studies and reports, has charted a new course for the Institute and its Constituent Societies commencing in 1984. The anticipated separate incorporation of TMS will bring important changes to our structure and operation. TMS is faced with many challenges from without but has never been stronger internally to deal with and effectively meet those challenges.

Project Revitalization, which was an in-depth study and review of the structure, services and mode of operation of TMS, has succeeded in focusing attention and positive action within the Society to achieve its aims of:

- \* Build unity and strength
- \* Maximize service to membership
- \* Increase member involvement in TMS
- \* Maximize programming flexibility
- \* Improve internal and external communications
- \* Facilitate professional growth
- \* Improve accountability
- \* Develop policies and positions toward other professional/technical organizations within AIME and without.

The Long Range Planning Committee has now established nine strategic objectives as follows:

1. Enlarge financial resource base needed for continued viability of TMS.
2. Expand educational opportunities for TMS members.
3. Identify important and emerging areas of science, technology, and economics and promote program and publications in these areas.
4. Increase rate of growth of Society's membership.
5. Increase involvement of membership in Society affairs.
6. Seek out and develop mutually beneficial interactions with appropriate external organizations.
7. Increase dissemination of accumulated knowledge and understanding of the behavior, properties and applications of minerals, metals and materials to the profession and national technical community.
8. Motivate and recognize professional excellence.
9. Make TMS-AIME the preeminent national society serving the minerals processing, metals extraction and materials research professions.

The implementation plans for each are now being developed and soon will pervade every activity of the Society. In 1984 TMS will implement a new Board structure for governance, a new Programming structure for expanded meetings and revised publication policies and procedures for technical excellence in Journal of Metals and Conference proceedings. We are confident that the aims of Project Revitalization will be achieved through the combination of the new Long Range Plan and the time and talents of the TMS members.

TMS-AIME  
STATEMENT OF INCOME AND EXPENSE  
YEAR END, NOVEMBER 30, 1983

REVENUE

Member Dues and Fees	\$314,996
Publications: Books, Paper Selections, Proceedings	391,026
Journal of Metals	319,511
Journal of Electronic Materials	73,888
Metallurgical Transactions	554,480
Interest and Dividends	22,743
Meetings: AIME Annual Meeting	122,115
Offshore Technology Conference	14,141
Electronic Materials Conference	42,160
Fall Meeting	95,795
Extractive Fall Meeting	66,325
Miscellaneous Meetings	24,234
Short Course	6,010
Other	<u>8,360</u>
<u>TOTAL REVENUE</u>	<u>\$2,055,784</u>

EXPENSE

AIME Corporate Headquarters	\$ 9,181
Society Headquarters and Business Services	178,949
Publications: Books, Paper Selections, Proceedings	335,002
Journal of Metals	395,227
Journal of Electronic Materials	51,784
Metallurgical Transactions	554,063
Member Services	142,618
Meetings: AIME Annual Meeting	114,586
Offshore Technology Conference	2,664
Electronic Materials Conference	41,463
Fall Meeting	81,070
Extractive Fall Meeting	60,187
Miscellaneous Meetings	22,787
Short Course	834
Other	36,688
Federation Support	<u>12,394</u>
<u>TOTAL EXPENSE</u>	<u>\$2,039,497</u>
<u>REVENUE OVER EXPENSE</u>	<u>\$ 16,287</u>
<u>TOTAL TMS-AIME RESERVES</u>	<u>\$ 388,487</u>

## BALANCE SHEET AS AT NOVEMBER 30, 1983

## THE METALLURGICAL SOCIETY OF AIME

## ASSETS

	<u>1983</u>
Operating Fund:	\$
Cash and temporary cash investments	37,051
Accounts receivable	202,641
Inter-Society Receivable	10,729
Inventories of publications	196,433
Investments, at cost plus accrued interest	
Property, building and equipment	
Land	24,450
Buildings	245,156
Equipment, furniture and fixtures	27,880
	<hr/>
TOTAL	<u>\$744,340</u>
Prepaid expenses, deferred charges and other assets	<u>45,178</u>
TOTAL OPERATING FUND	<u><u>\$789,518</u></u>

## LIABILITIES AND FUND BALANCES

Operating Fund:	
Accounts payable and accrued liabilities	\$ 50,883
Inter-Society Payable	
Membership dues received in advance	30,690
Other deferred credits, principally publications and meetings	104,251
Mortgage loan payable	86,222
Loans payable to endowment fund plus accrued interest	128,985
Surplus - unrestricted	<u>360,036</u>
TOTAL OPERATING FUND	<u>\$761,067</u>
Endowment, quasi-endowment and custodian funds:	
Custodian funds (unrestricted)	\$ 28,451
Total Endowment, Quasi-endowment and Custodial Funds	28,451
Property Fund	
	<u>\$789,518</u>

## PUBLICATION ACTIVITIES

## JOURNAL OF METALS - Overview

JOURNAL OF METALS published 1,288 pages in FY1983, an increase of 84 pages over 1982. The most significant increases came in the form of Society news and membership promotion. Society news included two special reports on (1) new Honors & Awards procedures and (2) summary on membership questionnaire. The Buyer's Guide, published for the first time this year, accounted for 16 additional pages in the March issue; the Annual Review of Extractive Metallurgy portion of the April issue accounted for 57 pages (15 pages over 1982). Technical and feature articles totalled 528 pages. The breakdown between the physical/mechanical metallurgy and the extractive/process metallurgy editorial emphases were almost equally balanced this year with physical/mechanical representing 54% and extractive/process at 46%. Feature articles encompassed GEM columns, annual salary survey, new "Industry-at-a-Glance" summaries of the iron and steel, and aluminum industries, and articles such as the following:

The State of Engineering Education  
 1983 Senior Class -- Metallurgy/Materials Science  
 Perspectives -- three articles by Herbert Kellogg,  
 Julius Harwood and Charles Parry  
 1984 Federal R&D Budget  
 Six-part Productivity series  
 Transcription of discussion at the Third International  
 Symposium on Hydrometallurgy

Breakdown of 1983 Pages

Physical/Mechanical Metallurgy	247.5
Extractive/Process Metallurgy	208.5
Feature Articles	72
Departments	142.5
Society News	45
Meetings	206
Buyer's Guide	16
Display Advertising	46
Classified Advertising	35.5
House/Professional	
Awareness Advertising	71
Reader Service Cards	50
Misc. - Cover, Contents, Index	30
AIME News	16
Membership Directory	<u>102</u>
	1288

1983 Editorial Emphasis Calendar

<u>Issue</u>	<u>Physical/Mechanical</u>	<u>Extractive/Process</u>	<u>Special Feature</u>
December 1982	Advanced Materials Technology	Advanced Extraction Technology	Technical Program for 1983 AIME Annual Meeting
January 1983	Powder Metallurgy Update	Copper Extraction and Refining	
February 1983	Advances in Mechanical Texting	Continuous Casting	
March 1983	Microscopy/Surface Analysis	Steelmaking Technology	New Products/Processes Buyer's Guide
April 1983	High Strength, Low-Alloy Steels	Annual Review of Extractive Metallurgy	
May 1983	Heat Treating Update	Metal Recovery from Slags	
June 1983	Specialty Metals Review	Emissions Control	
July 1983	Energy and Materials Conservation		
August 1983	Surface Modification	Lead, Zinc, Tin	Technical Program for 1983 AIME Fall Meeting in Phys/Mech Met
September 1983	Nondestructive Evaluation	Smelting Technology	Technical Program for 1983 AIME Fall Meeting on Sulf Smltg. Tech.
October 1983	Computer Applications		
November 1983	Alloy Development Update	Aluminum Extractive Metallurgy	
December 1983	Advanced Materials Technology	Advanced Extraction Technology	Technical Program for 1983 AIME Annual Meeting

### Production

This was the second year in which the Journal was printed mini-web rather than on sheet-fed presses. The process continued to provide further flexibility in design and production for editorial and advertising at a lower cost than comparable production and sheet-fed equipment. Printing costs rose slightly this year with presswork and paper averaging 6% more than in 1982. Base composition costs remained steady; increases in actual composition costs resulted from the increase in pages and development of more original art for editorial illustration.

### Advertising

Net advertising revenue for FY1983 was \$129,728, which shows an increase of \$21,528 over 1982. Approximately 50% of the advertising revenue was from display advertising. Advertising rates remained unchanged from 1982.

#### COMPARATIVE ADVERTISING STATISTICS

	FY 1982		FY 1983		+/-
	Pages	Income	Pages	Income	
Display	24 1/3	\$ 38,259	46	\$ 64,816	+26,557
Classified	30 2/3	50,837	35	42,664	- 8,173
House/Professional Awareness	58	19,104	71	22,248	+ 3,144
	<u>113</u>	<u>\$108,200</u>	<u>152</u>	<u>\$129,728</u>	<u>+21,528</u>

### Circulation and Subscription Promotion

Total income from non-member subscriptions in FY1983 was \$163,262; 1982 income was \$159,253.

#### JOURNAL OF METALS CIRCULATION STATISTICS (Non-Member)

	<u>1982</u>	<u>1983</u>
New Subscriber:		
Domestic	106	100
Foreign	188	175
Renewing Subscriber:		
Domestic	632	673
Foreign	999	1017
Other AIME Subscribers	940	877
Bulk Subscribers		
Domestic	62	70
Foreign	44	24
Total	<u>2971</u>	<u>2936</u>

Non-member circulation was aided in 1983 by direct mail subscription promotions targeted at the aluminum, titanium, copper, and steel industries, Japanese educational institutions, international technical libraries. The majority of these promotions were completed during 1982.

### Program Abstracts

Program abstracts for the 1983 AIME Annual Meeting appeared in the December 1983 issue of the Journal and abstracts for the 1983 TMS-AIME Fall Meeting appeared in August 1983. This year the total number of abstract pages reached 186 compared with 197 pages published during the previous year. For the first time, the Journal also published the technical program for the 1983 TMS-AIME Fall Extractive Meeting (September 1983 issue) which totaled 17 pages.

### Directory

For the second year, the Membership Directory -- previously part of the June issue of the Journal -- was published as a separate volume and available only to members. The directory emphasized TMS and AIME Honors and Awards, membership activities/services, and TMS/AIME-sponsored meetings in addition to the alphabetical and geographic member listings.

### JOM Reprints

Total income from author reprints of Journal of Metals articles reached \$14,316 or \$3,498 over 1982. Two portfolio reprint booklets of key aluminum and titanium articles were also reprinted this year as introductory premiums for new Journal subscribers.

### JOURNAL OF ELECTRONIC MATERIALS

FY1983 was the second year that JOURNAL OF ELECTRONIC MATERIALS has been generated in-house by TMS-AIME, including subscription maintenance and development, production, and fulfillment. Circulation statistics below show the growth in circulation from 1982 to 1983. Total income from subscriptions in 1983 was \$62,606, or \$12,792 over 1982. Subscription rates for 1983 remained at the 1982 rate; a total of 1,071 pages were printed in 1983, as opposed to 1,145 pages the previous year. Subscription promotion activities included advertisements in major subscription agency catalogs for libraries and the business community, as well as in TMS publications and promotional materials. Total income for Journal reprints was \$6,955 in 1983, compared to \$6,426 in 1982.

#### JOURNAL OF ELECTRONIC MATERIALS CIRCULATION STATISTICS (Non-Member)

	<u>1982</u>	<u>1983</u>
New Subscriber:		
Domestic	517	384
Foreign	264	136
Renewing Subscriber:		
Domestic	-	321
Foreign	-	199
Bulk Subscribers:		
Domestic	29	27
Foreign	-	-
	<u>810</u>	<u>1067</u>
Total	810	1067
Total income generated from FY1982 -	\$49,814	
Total income generated from FY1983 -	\$62,606	



## PAPER SELECTIONS

For FY 1983, the total revenue for Paper Selections was \$12,129.00. Of the 65 Paper Selections that were submitted, 51 were presented at the Annual Meeting. Revenue from the sale of 2,013 copies of those papers totaled \$4,474.00. At the Fall Meeting, 14 Paper Selections were submitted and 33 copies were sold for a total of \$80.00.

## PUBLICATIONS

For FY 1983, 16 new titles were published. They were:

THERMOMECHANICAL PROCESSING OF MICROALLOYED AUSTENITE, DeArdo, Wray, and Ratz  
 HIGH-TEMPERATURE PROTECTIVE COATINGS, Singhal  
 LIGHT METALS 1983, Adkins  
 HYDROMETALLURGY - RESEARCH, DEVELOPMENT, AND PLANT PRACTICE, Osseo-Asare and Miller  
 SOLID-SOLID PHASE TRANSFORMATIONS, Aaronson, Laughlin, Sekerka, Wayman  
 PROCESS MINERALOGY II, Hagni  
 THERMODYNAMIC DATA ON METAL CARBONATES AND RELATED OXIDES, Chang  
 CHLORIDE ELECTROMETALLURGY, Parker  
 HIGH-STRENGTH POWDER METALLURGY ALUMINUM ALLOYS, Koczak and Hildeman  
 NOVEL TECHNIQUES IN METAL DEFORMATION TESTING, Wagoner  
 GRAIN REFINEMENT IN CASTINGS AND WELDS, Abbaschian and David  
 AMORPHOUS MATERIALS: MODELING OF STRUCTURE AND PROPERTIES, Vitek  
 EXTRACTIVE METALLURGY LABORATORY EXERCISES INSTRUCTOR'S GUIDE AND SOLUTION MANUAL, Fine  
 MECHANICAL BEHAVIOR OF METAL MATRIX COMPOSITES, Hack and Amateau  
 CHEMISTRY AND PHYSICS OF RAPIDLY SOLIDIFIED MATERIALS, Berkowitz and Scattergood  
 ADVANCES IN SULFIDE SMELTING, Sohn, George, and Zunkel

Eight books are in various stages of production and will be available the early part of 1984. They are:

NOVEL NDE METHOD FOR MATERIALS, Rath  
 LIQUID AND SOLID METAL INDUCED EMBRITTLEMENTS, Kamdar  
 NIOBIUM, Stuart  
 PRECIOUS METALS, Kudryk, Corrigan, and Liang  
 CASE-HARDENED STEELS, Cahn and Diesberg  
 ALUMINUM-LITHIUM II, Sanders and Starke  
 LIGHT METALS, McGeer

Nine books have been approved for publication and are in various editorial stages. They will be available mid-1984. Three more are now going through the approval process.

Book sales for the FY 1983 were \$328,374.64. Included in this total are the sales from the Annual Meeting (1,183 books for \$33,533.00), the Fall Meeting (435 books for \$6,870.00), the Fall Extractive Meeting (391 books for \$15,616.00) and the Seeley W. Mudd Fund (465 books for \$4,372.01).

The revenues for postage and handling were \$7,824.30. Included in this figure is the postage and handling from the Seeley W. Mudd Fund (\$1,627.50).

Exculding the sales from the meetings and the Seeley W. Mudd Fund, we are averaging approximately \$23,000 a month in book sales. The distribution of book sales appears to fall into the following categories:

AIME Members - 40%, Non-Members - 20%, Bookbuyers - 25%, and Students - 15%.

#### BOOK REPRINTS

Net income for Book Reprints for 1983 were up substantially over 1982 income, while total expenses decreased. Income for 1983 was \$3,316.00 higher than 1982. Expenses for 1983 were \$768 lower than 1982.

The total number of reprints from 1983 were up 70% over 1982 total figures for 1982. We think that the reason behind the high increase in book reprints, is that we have used a different way of figuring out the prices so that we can offer them at lower prices to generate a bigger interest in receiving our reprints. Another reason is we have produced more books in 1983.

#### BOOK REPRINT REPORT

<u>YEAR</u>	<u>NUMBER OF REPRINTS</u>	<u>TOTAL INCOME</u>	<u>TOTAL EXPENSE</u>	<u>NET INCOME</u>
1982	150	\$37,807	\$23,947	\$13,860
1983	255	\$41,123	\$23,179	\$17,944

METALLURGICAL TRANSACTIONS A & B - REPORT FOR 1983

1983 METALLURGICAL TRANSACTIONS A  
Technical Papers Published

	No. of TPs	No. of Pages	Total Pages
A Sub +	251	2211	
B Sub ++	2	17	
Total	253	2228	2228

1983 METALLURGICAL TRANSACTIONS B  
Technical Papers Published

	No. of TPs	No. of Pages	Total Pages
A Sub +	4	27	
B Sub ++	76	639	
Total	80	666	666

Communications Published

	No. of TPs	No. of Pages	Total Pages
A Sub +	49	137	
B Sub ++	0	0	
Total	49	137	137

Communications Published

	No. of TPs	No. of Pages	Total Pages
A Sub +	0	0	
B Sub ++	17	45	
Total	17	45	45

Title Pages 12

Title Pages 4

Table of Contents, etc. 47

Table of Contents, etc. 16

Blank Pages 144

Blank Pages 37

Total Pages in 1983 MET TRANS A 2568\*

Total Pages in 1983 MET TRANS B 768\*

\*Annual Index follows this page

+TMS A Subcommittee

++TMS B Subcommittee

A and B Combined  
Technical Papers Published

	No. of TPs	Pages	Total Pages
A Sub + and ASM	255	2238	
B Sub ++	78	656	
Total	333	2894	2894

Communications Published

	No. of TPs	Pages	Total Pages
A Sub + and ASM	49	137	
B Sub ++	17	45	
Total	66	182	182

Title Pages 16

Table of Contents, etc. 63

Blank Pages 181

Total Pages in 1983 METALLURGICAL TRANSACTIONS A and B 3336

\*An Annual Index appears in the December Issue of both A and B

+TMS A Subcommittee

++TMS B Subcommittee

METALLURGICAL TRANSACTIONS serves the needs of the entire metallurgical profession. Thus, Society distinctions are eliminated throughout both the review and publication process. Consequently, the tabular data represents the distribution of effort in the Board of Review and not the source of the papers.

## MEETINGS ACTIVITIES

The Metallurgical Society of AIME sponsored or co-sponsored the following technical conferences during 1983.

112th AIME Annual Meeting  
Hyatt Regency and Marriott Hotels  
March 6-10, 1983, Atlanta, GA

15th Annual Offshore Technology Conference  
Astrodomain  
May 2-5, 1983, Houston, TX

Ferritic Alloys Conference  
Snowbird Conference Center  
June 19-23, 1983, Snowbird, UT

25th Annual Electronic Materials Conference  
University of Vermont  
June 22-24, 1983, Burlington, VT

1983 TMS-AIME Fall Meeting (Physical Metallurgy)  
Franklin Plaza Hotel  
October 2-6, 1983, Philadelphia, PA

1983 TMS-AIME Extractive and Process Metallurgy Fall Meeting  
The International Sulfide Smelting Symposium  
Westin St. Francis Hotel  
November 6-9, 1983, San Francisco, CA

Attendance and programming statistics for the above meetings are listed in detail in the various tables on the next few pages.

In 1983 TMS-AIME initiated fall programming in extractive and process metallurgy by sponsoring and organizing the International Sulfide Smelting Symposium. A total of 71 papers were presented during 13 sessions. Proceedings were available at the conference. This was the first annual fall meeting in the program area of extractive and process metallurgy. Each year's fall meeting will address a specific topic.

The International Sulfide Smelting Symposium was very successful, with total attendance of 335. A breakdown of attendance by country and state follows.

Geographic Breakdown of Attendance

1983 TMS-AIME Extractive and Process Metallurgy Fall Meeting  
The International Sulfide Smelting Symposium

Africa	1	Finland	9	Portugal	2
Australia	8	France	2	Saudi Arabia	1
Belgium	14	India	2	Sweden	6
Botswana	1	Japan	13	South Africa	7
Brazil	1	Korea	3	West Germany	8
Canada	50	Mexico	7	Zambia	2
Chile	2	Norway	4		
England	11	Philippines	3	Foreign Total	- 157

(continued on next page)

U.S. Total - 178  
Breakdown by State

AZ	28	GA	2	MD	1	NM	6	UT	15
CA	23	ID	1	MI	4	NV	2	WA	4
CO	14	IL	2	MN	5	NY	9	WI	1
CT	3	IN	3	MO	8	OH	4		
D.C.	3	KY	2	NH	2	PA	12		
FL	1	MA	2	NJ	7	TX	4		

Total Conference Attendance - 335

This year's Electronic Materials Conference experienced record high attendance of 692 (attendance last year was 520). The Conference, sponsored by the TMS-AIME Electronic Materials Committee, traditionally meets during the third week of June on a university campus, alternating sites from west coast, midwest to east coast.

In response to the growth of member interest in the electronic materials field, TMS formed an Ad Hoc Committee on Electronic Device Materials during 1983 to provide programming in the electronic materials area at future annual and fall meetings.

The 1983 TMS-AIME Fall Meeting (Physical Metallurgy) was held in Philadelphia, October 2-6, 1983, over the same dates as the 1983 American Society for Metals Metals Congress in Philadelphia. Original plans were to have a joint meeting with a combined registration fee as was done in St. Louis in 1982. However, in 1983 a joint registration fee could not be negotiated; and, therefore, TMS-AIME and the American Society for Metals conducted separate meetings.

Attendance at TMS-AIME sessions (1,068) was comparable with prior years. The number of papers in the TMS-AIME program (615) shows a steady rise over the last several years as shown by the charts on the following pages.

The Ferritic Alloys Conference, organized and sponsored by the TMS-AIME Nuclear Metallurgy Committee, addressed recent developments in the technology of materials used in BWR/PWR breeder and fusion reactors. 82 papers were presented during 10 sessions. Proceedings are in the process of being published.

The 1983 AIME Annual Meeting in Atlanta was once again successful. Attendance was good, with overall attendance of 3,603. TMS attendance was 1,787. As has been the practice in recent years, TMS program areas were separated by hotel, with all physical metallurgy sessions in the Marriott Hotel and extractive and process metallurgy sessions at the Hyatt Regency.

TMS-AIME programmed 117 technical sessions containing 694 papers during the 1983 AIME Annual Meeting. Included in the major symposia was the joint TMS/SME-AIME Third International Symposium on Hydrometallurgy. This 10 session symposium covered developments over the last 10 years in both fundamental and practical aspects of hydrometallurgy. Proceedings were available at the meeting.

TMS-AIME ATTENDANCE/FINANCIAL PERFORMANCEBreakdown of TMS-AIME Annual Meeting Attendance

1981 - 1983

<u>Category</u>	<u>1981 Chicago</u>	<u>1982 Dallas</u>	<u>1983 Atlanta</u>
Members	1,001	1,065	1,008
Nonmembers	410	347	320
Nonmember Authors	215	280	208
Student Members	148	163	196
Student Nonmembers	15	30	31
Founder Societies		9	8
SEG		0	0
CIM		10	16
Total TMS-AIME Registration	1,789	1,904	1,787
Surplus	\$9,600	\$2,851	\$7,500

Breakdown of TMS-AIME Fall Meeting Attendance (Physical Metallurgy)

1981 - 1983

<u>Category</u>	<u>*1981 Louisville</u>	<u>1982 St. Louis**</u>	<u>1983 Philadelphia</u>
Members	501	222	455
ASM Members	145	254	80
AIME/ASM Members		342	101
*ACS Members	92		
Nonmembers	52	87	51
Nonmember Authors	75	115	90
Student Members	147	196	274
Student Nonmembers	20	29	17
Total Registration	1,032	1,245	1,068
Surplus (Loss)	\$100	(\$9,000)	\$14,725

\*\* 1982 Fall Meeting was a joint TMS-AIME/American Society for Metals meeting.

\* Cooperative programming with the American Ceramic Society 1981 Louisville.  
(Basic Science Division)

Breakdown of TMS-AIME Extractive & Process Metallurgy Fall Meeting Attendance

<u>Category</u>	<u>1983 San Francisco</u>
Members	274
Nonmembers	47
Students	9
Complimentary	5
	<u>335</u>
Surplus	\$6,138

THE METALLURGICAL SOCIETY  
ANNUAL MEETING PROGRAM ACTIVITY--NUMBER OF SESSIONS/PAPERS BY SPONSOR

LOCATION	LAS VEGAS	CHICAGO	DALLAS	ATLANTA
	1980 109th AM	1981 110th AM	1982 111th AM	1983 112th AM
Dates of Meetings:	Feb.24-28	Feb.22-26	Feb. 15-18	March 6-10
COMMITTEE SPONSORED				
MS & AM				
Sessions/Papers/% of Total	32/180/22%	22/141/20%	46/238/30%	22/116/19%
E & PM				
Sessions/Papers/% of Total	42/216/28%	29/148/26%	44/222/29%	30/145/26%
Jt. TMS/ISS				
Sessions/Papers/% of Total	15/79/10%	11/64/10%	9/57/6%	8/54/7%
Jt. TMS/SME				
Sessions/Papers/% of Total	7/41/5%	12/80/11%	8/44/5%	15/87/13%
Jt. TMS/ASM				
Sessions/Papers/% of Total	12/76/8%	17/102/15%	16/119/10%	11/62/9%
Jt. TMS/Other				
Sessions/Papers/% of Total	- - -	- - -	1/8/1%	- - -
ASM:MSD			(SEG)	
Sessions/Papers/% of Total	6/31/4%	5/23/4%	4/32/3%	5/25/4%
TOTAL COMMITTEE:				
Sessions/Papers/% of Total	114/623/77%	96/558/86%	128/720/84%	91/489/78%
GENERAL ABSTRACT SESSIONS				
MS & AM				
Sessions/Papers/% of Total	32/304/22%	15/174/13%	24/189/15%	23/184/19%
E & PM				
Sessions/Papers/% of Total	2/15/1%	1/8/1%	1/6/1%	3/21/3%
TOTAL GENERAL ABSTRACTS				
Sessions/Papers/% of Total	34/319/23%	16/182/14%	25/195/16%	26/205/22%
OVERALL TOTAL	148/942	112/740	153/915	117/694
AVERAGE SESSION ATTENDANCE	68	52	44	36
TMS REGISTRATION TOTAL	1,265	972	1,904	1,787
OVERALL REGISTRATION TOTAL	6,382	4,426	3,724	3,603
No. of Sessions/No. of Papers/ % of Total Sessions				

MS & AM=Metals Science & Application of Metals  
E & PM=Extractive and Process Mineralogy

## THE METALLURGICAL SOCIETY

## FALL MEETING PROGRAM ACTIVITY--NUMBER OF SESSIONS/PAPERS BY SPONSOR

LOCATION	PITTSBURGH	LOUISVILLE	ST. LOUIS	PHILADELPHIA
	1980 Fall Mtg.	1981 Fall Mtg.	1982 Fall Mtg.	1983 Fall Mtg.
Dates of Meetings:	Oct.5-9	Oct.11-15	Oct.24-28	Oct. 2-6
COMMITTEE SPONSORED				
MS & AM				
Sessions/Papers/% of Total	36/247/42%	19/107/22%	22/126/25%	13/88/15%
E & PM				
Sessions/Papers/% of Total	- - -	1/4 1%	- - -	- - -
Jt. TMS/ISS				
Sessions/Papers/% of Total	- - -	- - -	- - -	- - -
Jt. TMS/SME				
Sessions/Papers/% of Total	1/3/1%	- - -	- - -	- - -
Jt. TMS/ASM				
Sessions/Papers/% of Total	15/80/17%	13/74/15%	28/189/32%	25/142/31%
Jt. TMS/Other				
Sessions/Papers/% of Total	- - -	20/157/23%	- - -	- - -
ASM:MSD		(BSD-ACERS)		
Sessions/Papers/% of Total	9/45/10%	8/42/9%	4/17/5%	13/78/15%
TOTAL COMMITTEE:				
Sessions/Papers/% of Total	61/375/71%	61/384/70%	54/332/62%	51/308/61%
GENERAL ABSTRACT SESSIONS				
MS & AM				
Sessions/Papers/% of Total	25/222/29%	25/221/30%	33/278/38%	33/307/39%
E & PM				
Sessions/Papers/% of Total	- - -	- - -	- - -	- - -
TOTAL GENERAL ABSTRACTS				
Sessions/Papers/% of Total	25/222/29%	25/221/30	33/278/38	33/307/39%
OVERALL TOTAL	86/597	86/605	87/610	84/615
AVERAGE SESSION ATTENDANCE	56	31	35	36
TMS REGISTRATION TOTAL	1,029	1,032	1,245	1,068
OVERALL REGISTRATION TOTAL	-	-	1,733*	1,068

\*Includes ASM Metals Congress  
No. of Sessions/No. of Papers/% of Total Sessions

MS & AM=Metals Science & Application of Metals

E & PM= Extractive and Process Mineralogy



## THE METALLURGICAL SOCIETY

1983 Extractive and Process Metallurgy Fall MeetingInternational Sulfide Smelting Symposium

November 6-9, 1983

San Francisco, California

Number of Sessions 13

Number of papers 70

Total Attendance 335

## High Paper Statistics

Session Title	High Paper Title (Primary Author)
Monday AM (Plenary Lectures)	
Monday PM	
Smelter Operations I	Copper Pyrometallurgy: The Quest for an Environmentally Acceptable Continuous Process (J. C. Yannopoulos)
Basic Principles & Laboratory Investigations I	Investigation of the Direct Smelting of Copper Concentrate (R. R. Odle)
Environmental Control	Arsenic Control in Modern Smelting Processes (M. A. Cocquerel)
Tuesday AM	
Basic Principles & Laboratory Investigations II	Activities of PbS and Ag <sub>2</sub> S <sub>0.5</sub> in High Grade Copper Mattes (S. N. Sinha)
New & Emerging Technolog. I	Oxygen Sprinkle Smelting at Morenci (R. E. Johnson)
Tuesday PM	
Smelter Operations II	Recent Improvement at Tamano Smelter (S. Okada)
Basic Principles & Laboratory Investigations III	Thermodynamics of Copper Smelting (T. Rosenqvist)
Process Economics	Selection of a Location for a New Copper Smelter (J. P. Rooney)
Wednesday AM	
New & Emerging Technolog II	The Role of Oxygen Potential and Use of Tonnage Oxygen in Copper Smelting (J.G. Eacott)
Basic Principles & Laboratory Investigations IV	Recovery of Copper from Industrial Copper Reverb Slags (R. G. Reddy)
Gas Cleaning & Handling	No statistics available
Summary Session	

## THE METALLURGICAL SOCIETY

1983 Electronic Materials Conference

June 22-24, 1983

Burlington, Vermont

Number of sessions 18

Number of papers 136

Total attendance 692

\* \* \* \* \*

Topical Conference on Ferritic Alloys for Use in Nuclear Energy Technologies

June 19-23, 1983

Snowbird, Utah

Number of sessions 10

Number of papers 82

Total attendance 111

## MEMBERSHIP ACTIVITIES

I. Membership Department

This department was expanded in November of 1982 to include two full time staff members for fiscal year 1983. In addition, a number of part-time employees were utilized in various administrative capacities to assist the full-time staff as needed throughout the year. Also, an internship program was established with this department and one of the local Universities. One intern was placed in the membership department during fiscal year 1983. The intern assisted the membership staff in marketing and new member promotion and recruitment activities. We are very pleased to report that this was a very successful and worthwhile experience, and that the practice of participating in similar programs of this nature will be continued in the future. In May of this year, the Membership Department's responsibilities and duties were expanded to include the administration of both the Local Section and Student Chapter programs of TMS-AIME. The Membership Department currently administers each of the following programs:

- Membership Development
  - Membership Recruitment
  - Membership Retention
  - Membership Services
- Local Sections
- Student Affairs

II. Membership Development

A. Membership Recruitment - New Member recruitment figures for 1983 set new records for both the number of new members and student members recruited in a fiscal year. As of November 30, 1983, the Admissions Committee approved a total of 1,371 applications for membership. Combined with the total number of student applications received for the same period, 1,271, membership recruitment efforts for fiscal year 1983 produced a grand total of 2,642 new members for TMS-AIME.

New member recruitment figures were bolstered by the 518 Automatic Junior Members who opted to continue their membership's upon graduation. This was the first time that the total number of AJM's recruited for a fiscal year surpassed the 500 mark. In addition, membership recruitment activities at - before - and in follow-up to the 112th AIME Annual Meeting in Atlanta Georgia, the TMS-AIME Fall Meeting in Philadelphia, and the International Sulphide Smelting Symposia in San Francisco, contributed significantly to the total number of new members recruited for fiscal year 1983. The total number of new members recruited at each of these meetings, stands as follows:

112th AIME Annual Meeting	156
TMS-AIME Fall Meeting	53
International Sulphide Smelting Symposia	<u>40</u>
Total	249

There were a number of newly developed promotional campaigns this year. The most successful of these campaigns was our Member Nomination Campaign. This promotional campaign was developed to allow TMS-AIME members the opportunity to nominate colleagues who they felt were educationally and professionally qualified for membership, and was included as an attachment in the October dues mailing to the entire TMS-AIME membership. The Member Nomination Campaign was particularly successful in that of the 231 nominations received, a total of 92 new members have been recruited to date, for a 40% response rate

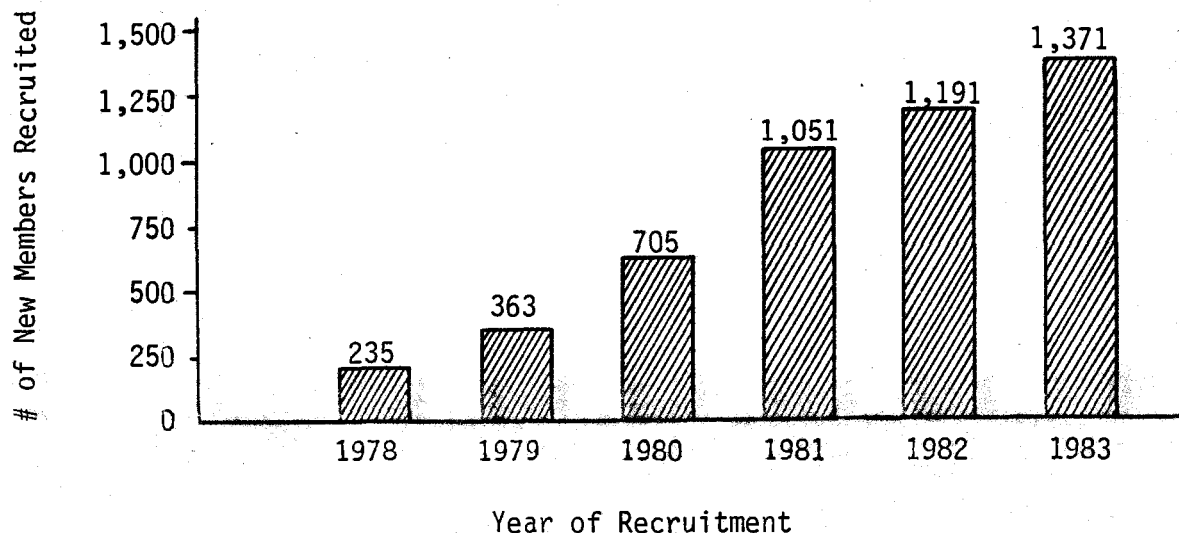
The goal of this years membership recruitment program was to maintain the 9% growth rate achieved in each of the two previous years. We are pleased to report the attainment of that goal, by achieving an annual growth rate of 10.0% for fiscal year 1983.

## Exhibit 1:

1983 New Member Recruitment Statistics

<u>1983 NEW MEMBERS</u>		<u>MEMBERSHIP GRADE</u>	
<u>Technical Interest</u>		<u>New Member</u>	<u>Reinstatements</u>
Extractive & Process Metallurgy	427	Member	543
Metal Science & Application of Metals	396	Associate	40
Economics	30	Junior	139
	<u>853</u>		<u>722</u>
		Reinst.	<u>+131</u>
		Total	<u>853</u>
AJM's	<u>518</u>		
TOTAL	<u>1,371</u>	Joint TMS-AIME/ASM Students Recruited	<u>1,271</u>

## Exhibit 2:

TMS-AIME New Member Recruitment 1978-1983

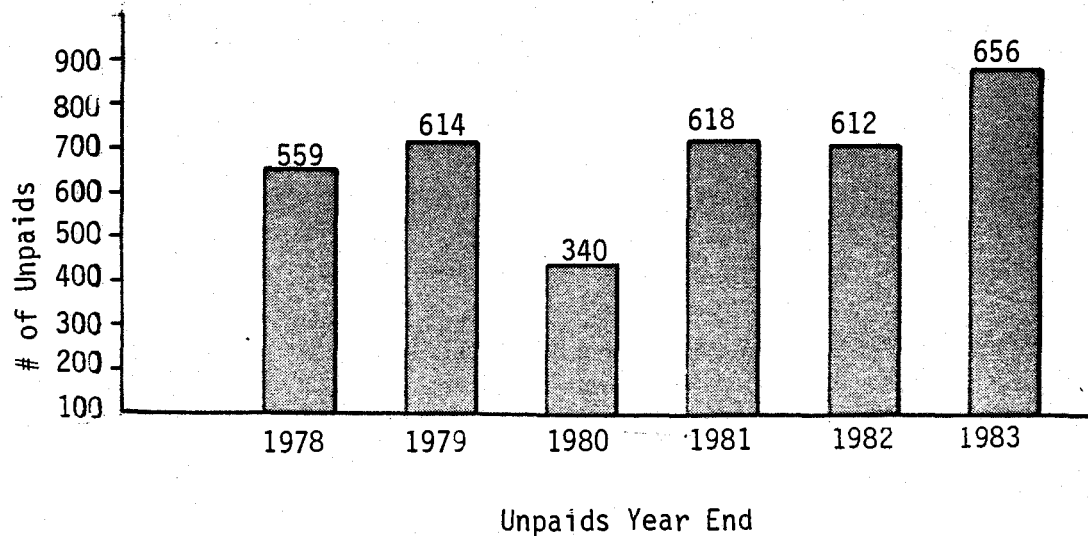
## Exhibit 3:

TMS-AIME MEMBERSHIP STATISTICS 1978 - 1983

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
E&PM	2,041	2,038	2,176	2,428	2,794	2,904
MS&AM	2,964	2,978	3,224	3,564	3,933	4,260
Education	53	55	51	49	49	41
Economics	47	48	60	71	92	114
Unclassified	<u>704</u>	<u>616</u>	<u>582</u>	<u>552</u>	<u>401</u>	<u>528</u>
Total Members	5,809	5,735	6,093	6,664	7,269	7,847
No. of Members Gained (Lost)	(261)	(74)	358	571	605	578
Percent Change	(4.30)	(.47)	7.15	7.56	9.39	10.0
Student	<u>2,290</u>	<u>2,326</u>	<u>2,544</u>	<u>2,626</u>	<u>2,893</u>	<u>3,318</u>
GRAND TOTAL	<u>8,099</u>	<u>8,061</u>	<u>8,637</u>	<u>9,290</u>	<u>10,162</u>	<u>11,165</u>

B. Membership Retention - Domestic and worldwide economic conditions continue to palgue the membership rolls of metals and materials societies. TMS-AIME, although experiencing its greatest year in the recruitment of new members, and despite increased retention efforts by the membership department staff, reports the highest number of unpaids ever for a single fiscal year. A total of 656 members, or 9% of the 1982 membership roster, were dropped from the TMS-AIME membership rolls this year. This 656 figure includes deceased members and transfers to other AIME societies, but is for the most part, made up of those members who were delinquent in the payment of their 1983 membership dues.

## Exhibit 4:

TMS-AIME Unpaids Year End 1978 - 1983

## B. Membership Retention Cont.

1. Non-Renewal Questionnaire. In October, a non-renewal questionnaire was sent to 713 TMS-AIME members who were delinquent in the payment of their 1983 membership dues. A total of 109 non-renewal questionnaires have been returned to date. The following are the results of that non-renewal questionnaire:

### Reasons for not renewing membership in TMS-AIME

- Foreign Exchange Problems . . . . .	20
- Retired . . . . .	15
- No Longer Active in the Metallurgy Field . . . . .	12
- Job Change . . . . .	10
- Unemployed . . . . .	9
- No Local Meetings . . . . .	5*
- Cost:	
a) Economy . . . . .	7
b) Cost of membership is too high . . . . .	7
c) Better benefits are offered by other societies . . . . .	6
d) Other firm members belong . . . . .	6
e) Belong to more relevant societies . . . . .	12
* Also used cost as a reason	
- Total . . . . .	109

The membership department is currently in the process of developing a much more aggressive retention program for fiscal year 1984, which will include additional dues mailings, a more efficient address update system and also personal phone calls made by the staff and membership committee to delinquent domestic members.

## III. Membership Services

A. Project Revitalization Questionnaire - In December 1982, a questionnaire was developed as the vehicle for soliciting member input and to give direction and support to TMS-AIME's continuing revitalization efforts of the two previous years. The questionnaire was developed to provide several kinds of information. First there was a series of questions in which TMS-AIME members were asked to rank present membership services. A similar set of questions was developed to assess the interest in potential new services. A third series of questions was developed to provide insight into the level of interest members had in participating actively in the affairs of TMS-AIME. The questionnaire also provided important demographic data about the membership of the society.

The results of the questionnaire indicate that TMS-AIME membership services are for the most part, good to excellent, compared to similar services offered by other related engineering societies. However, there was input that demonstrated a need for improving the Societies current mailing service to foreign members, and also in supporting and promoting local and regional programming activities. The staff and officers of TMS-AIME are currently striving to bring about the desired changes demonstrated through the data analysis of the questionnaire.

B. TMS-AIME Calendar - This year as in the two previous years, TMS-AIME again provided its members with an activities calendar. The TMS-AIME calendar is sent to every member free of charge, and lists important information such as staff responsibilities and phone numbers, the officers of TMS-AIME, and important meeting and deadline dates. The calendar has been well received by the membership, and we plan to continue this service in the future.

C. Membership Directory - TMS-AIME, as in previous years, published a directory to improve inter-communication among members of the Society. The membership directory lists the membership in alphabetical order, and indicates each members grade, year of election, their current position, address and telephone numbers. A unique feature which was included in this years directory was a TMS-AIME activities and services information section. This section provided important information to the membership regarding how to:

- Publish an article in the Journal of Metals
- Publish a conference proceedings
- Become a member of a technical committee
- Start a Student Chapter
- Publish a Call for papers on meetings
- Publish a positions wanted ad in the Journal of Metals
- Publish a metaleaders announcement in the Journal of Metals
- Publish a technical paper in the TMS-AIME conference proceedings program
- Nominate members for TMS-AIME office
- Recruit new TMS-AIME members

Due to the resourcefulness of this publication, the practice of publishing an annual TMS-AIME Membership Directory will be continued in the future.

D. AAES Automobile Rental Program - As a member of the American Association of Engineering Societies, TMS-AIME can now make available to its members the opportunity to participate in a new profession-wide car rental program which has been developed with the HERTZ CORP. TMS-AIME members are now entitled to a discount of 20% off Hertz standard unlimited mileage rates every time they rent a car for business and/or pleasure.

E. New Insurance Program - In July of this year, TMS-AIME announced to its members that a new group term life insurance plan had been approved by the TMS-AIME Board of Directors, for themselves and their families. This new insurance program is underwritten by New York Life Insurance Company, and is administered by the Smith-Sternau Organization, Inc.

TMS-AIME, having joined the Smith-Sternau Organization, Inc., is now part of one of the healthiest insurance trusts in America. A total of 41 associations and engineering societies currently participate in the insurance trust administered by the Smith-Sternau Organization, Inc.

F. Membership Certificate - In October, TMS-AIME provided to its members the opportunity to purchase a handsomly designed 9 x 12 membership certificate featuring their name and year of election to membership to TMS-AIME. The certificate is hand inscribed in traditional Gothic lettering, and is accented with a gold-embossed TMS insignia. The cost of the certificate is \$10.00. To have the certificate mounted the cost is \$25.00 for members who reside in the United States, Canada, and Mexico. For members who reside elsewhere the cost is \$30.00. As of December 1, 1983, membership certificate orders were as follows:

- Certificates only	53
- Certificates mounted	<u>181</u>
Total	<u>234</u>

G. TMS-AIME Titles - A titles brochure which contains a comprehensive list of all TMS-AIME publications, as in the past, was published to promote the sale of TMS-AIME publications to members and non-members alike. TMS-AIME members have the opportunity to purchase publications of the society at a reduced rate which is often, 30 - 40% off the list price. This titles brochure is the primary marketing tool used to promote sales of all TMS-AIME publications. The TMS-AIME Titles brochure will continue to be published on an annual basis.

H. Journal of Metals Consultant Directory - As a service to the overall metallurgical community, Journal of Metals has recently inaugurated a section devoted specifically to professional services. This new feature, which will run on a monthly basis, and will be a geographic listing of all consultants in all phases of metallurgy.

Members of the Metallurgical Society of AIME will be entitled to at least a 20% discount off the annual rate of this new service. The annual rates of this service for members and non-members are as follows:

<u>Ad Size</u>	<u>Members</u>	<u>Non-members</u>
Up to 1 col. inch	\$195	\$250
1 - 2 col. inches	350	450
2 - 3 col. inches	520	650

#### IV. Local Sections

TMS-AIME's Local Section program received a considerable amount of attention and support by the membership department staff during fiscal year 1983. The reason for the increased support of section and regional program activity was largely due to the information provided to us via the project revitalization questionnaire.

A. Presidential Visits - Local Section support from Headquarters was highlighted by the visits made by Dr. Milton E. Wadsworth, president of TMS-AIME, to the following sections; Southern California, Chicago, and Central Indiana. The primary purpose of these visits was to provide the opportunity for these sections to discuss their major concerns about their relationship with TMS-AIME. President Wadsworth also provided to each section a general overview of the revitalized structure of the Society and extrapolated on the development of the newly formed committee organization.

B. Local Section Manual - This year TMS-AIME published a Local Section Manual "Operation of a Local Section". This was done to provide a guide for section organization and operation. The content of the operation manual mainly deals with key issues which affect the overall operation of a section, and lists the services/benefits of local section affiliation with TMS-AIME. The services/benefits that TMS-AIME provides to its sections are as follows:

1. Rebates
2. Speakers Bureau
3. Labels for mailings
4. Meeting badges
5. Meeting promotion in the Journal of Metals
6. Special section surveys
7. Local Section Directory
8. Section stationery
9. Membership records: 3 x 5 cards
10. Mailing of meeting announcements/brochures, at cost
11. Krumb lecture series
12. Officers' Training Programs



C. New Service - A new service provided by TMS-AIME to its Local Sections, is the printing and mailing of section meeting announcements, at cost. A number of sections have already taken advantage of this service which seems to provide sections with a more efficient and effective way of communicating to their memberships. The most attractive feature of this service is that it can be performed in-house at TMS-AIME Headquarters at a cheaper cost, compared to the costs of having it performed at the local level.

D. Current Status - TMS-AIME currently maintains and services 11 local sections. A number of interest level surveys have been sent to prospective areas in the hope of developing additional section activities. TMS-AIME Local Sections are as follows:

- Boston Section
- Central Indiana Section
- Chicago Section
- Cleveland Section
- Connecticut Section
- Detroit Section
- Hudson-Mohawk Section
- Northern California Section
- Ohio Valley Section
- Pittsburgh Section
- Virginia Section

#### V. Student Affairs

A. Student Member Recruitment - Since students are the prospective members to, and future of TMS-AIME, we are pleased to report that overall recruitment of new student members and the participation of students in national and chapter programs and activities continues to increase at a very healthy rate. Student member recruitment figures for fiscal year 1983 show that a total of 1,271 joint TMS/ASM student members were recruited. In addition a total of 96 foreign students were recruited for the same period for student membership in TMS-AIME.

The success enjoyed by TMS-AIME in the recruitment of student members is largely due to the self-contained student member promotion poster which was sent in February 1983, to all colleges and universities that have metallurgy and/or material science programs. A total of 986 student applications have been received as a result of this ongoing campaign.

B. Student Contest Winners - This year three students and five Student Chapters were selected as the recipients of the distinguished outstanding student contest awards. The TMS-AIME Student Paper Contest provides a challenging and spirited competition for up and coming student scientists and engineers of metallurgy/material science. Individual recipients were awarded a \$250 cash prize plus \$250 in travel expense monies to attend the 112th AIME Annual Meeting in Atlanta, Georgia, to receive their awards. The winners of this years Student Paper Contest were are follows:

Undergraduate--Physical/Mechanical Metallurgy  
 William Reis (University of Florida)  
 "The Effect of Time and Temperature on  
 the Penetration of Aluminum into Graphite."

Undergraduate--Extractive & Process Metallurgy  
 Frank Roberts (Carnegie-Mellon University)  
 "Reaction Mechanisms for Pick-up and Re-  
 moval of Hydrogen in a Ladle to Ladle  
 Vacuum Degassing System."

Graduate--Physical/Mechanical Metallurgy  
 Michael J. Kaufamn (University of Illinois)  
 "Analysis of Rapid Solidification of Submicron  
 Al-Ge Eutectic Powders Using Transmission  
 Electron Microscopy."

The outstanding Student Chapter of TMS-AIME is selected on the basis of a superior program and its annual report. The outstanding Student Chapter of TMS-AIME received a cash award of \$100 and certificate, and honorable mention awardees received \$25 honorariums and certificates. The winners and honorable mention awardees for this years outstanding Student Chapter Contest were as follows:

CONTEST WINNER: University of Florida  
 Faculty Sponsor: Raymond A. Rummel, Assoc. Professor  
 Richard G. Connell, Jr., Asst. Professor

FIRST HONORABLE MENTION: Ohio State University  
 Faculty Sponsor: George R. St. Pierre, Professor

SECOND HONORABLE MENTION: University of Arizona  
 Faculty Sponsor: Arturo Bronson, Professor

THIRD HONORABLE MENTION: Wayne State University  
 Faculty Sponsor: C. Gandhi, Professor

FOURTH HONORABLE MENTION: University of Pittsburgh  
 Faculty Sponsor: Henry Andrejasik, Assoc. Professor

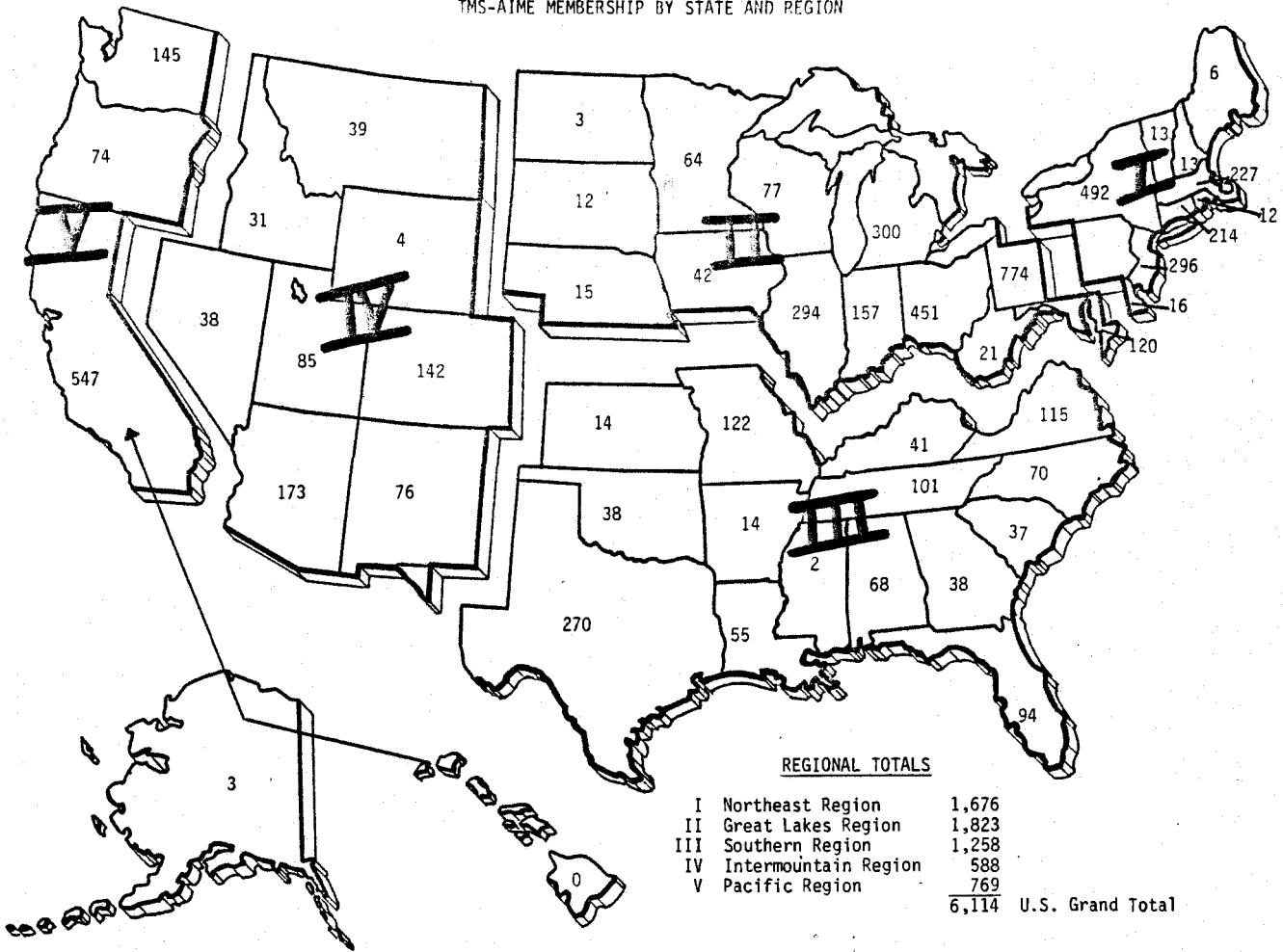
C. Current Status - The TMS-AIME Student Chapter program this year received considerable attention and support from the membership department staff, and as a result, participation in all Student Chapter activities and programs increased significantly. TMS-AIME currently maintains some 43 Student Chapters in 25 states, and in two foreign countries. The following is a list of these TMS-AIME Student Chapters.

Univ. of Alabama  
 Univ. of Arizona  
 Auburn Univ.  
 Univ. of Cal. - Davis  
 Carnegie-Mellon Univ.  
 Case Western Reserve  
 Colorado Sch. of Mines  
 Columbia Univ. - H. Krumb Sch. of Mines  
 Drexel University  
 Univ. of Florida  
 Georgia Inst. of Tech  
 Univ. of Illinois at Urbana  
 Illinois Inst. of Tech.  
 Johns Hopkins Univ.  
 Lafayette College

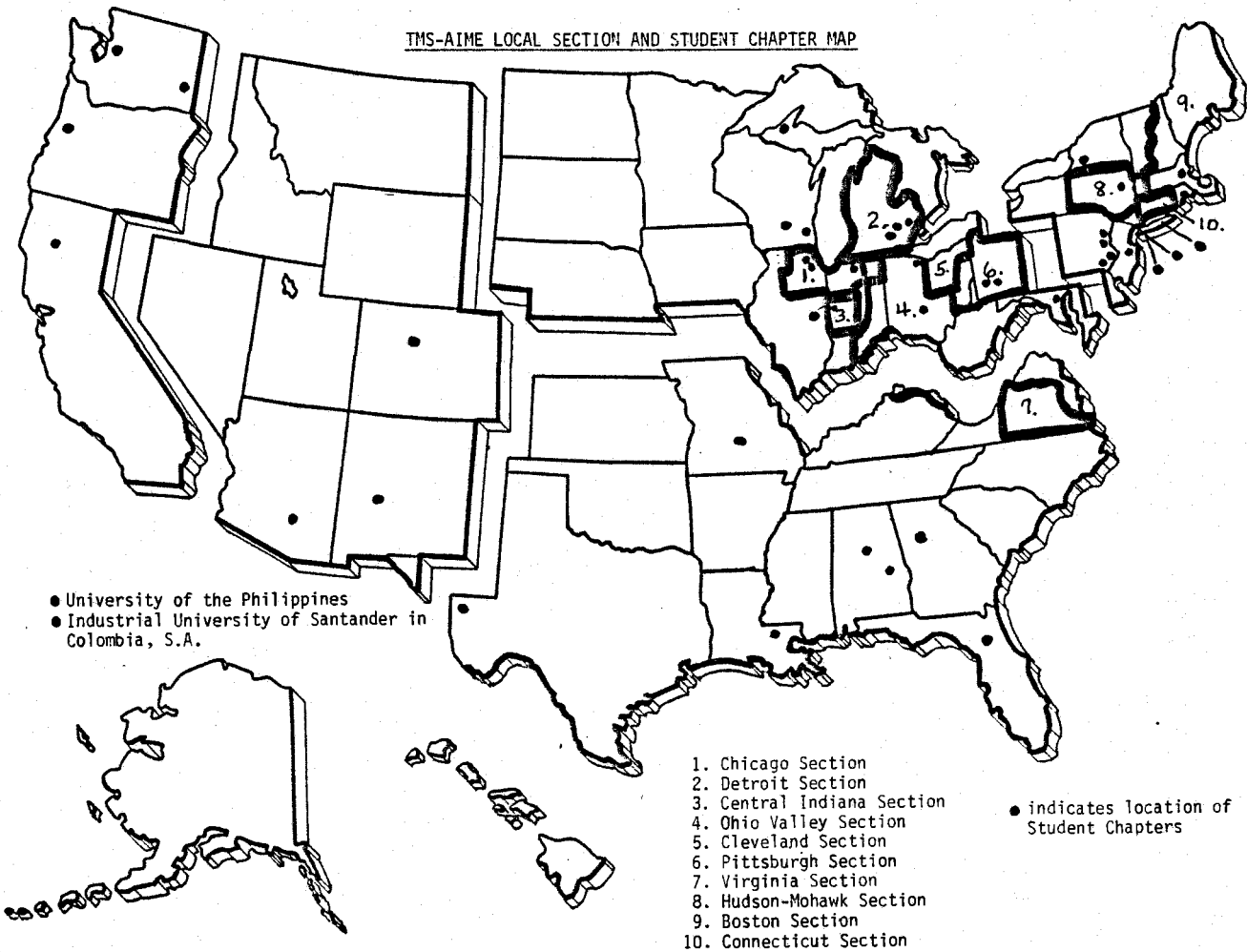
Lehigh Univ.  
 Louisiana State Univ.  
 MIT  
 Mich. State Univ.  
 Mich. Tech. Univ.  
 Univ. of Mich.  
 Univ. of Missouri - Rolla  
 New Mexico Inst. of Min. & Tech.  
 State Univ. of NY at Stony Brook  
 Northwestern Univ.  
 Univ. of Notre Dame  
 Ohio State Univ.  
 Oregon State Univ.  
 Univ. of the Philippines  
 Univ. of Pittsburgh

Polytechnic Inst. of NY  
 Univ. of PA  
 Purdue Univ.  
 Rensselaer Polytechnic Inst.  
 Univ. Industrial De Santander  
 Stevens Inst. of Tech.  
 Syracuse Univ.  
 Univ. of Texas at EL Paso  
 Univ. of Washington  
 Washington State Univ.  
 Wayne State Univ.  
 Univ. of Wisconsin-Madison  
 Univ. of Wisconsin-Milwaukee

TMS-AIME MEMBERSHIP BY STATE AND REGION



TMS-AIME LOCAL SECTION AND STUDENT CHAPTER MAP



TMS-AIME MEMBERSHIP OUTSIDE U.S. BY LOCATIONYEAR END FISCAL YEAR 1983EUROPE

England	98
W. Germany	85
France	66
Switzerland	50
Sweden	49
Norway	43
Belgium	33
Finland	27
Italy	24
Netherlands	17
Greece	15
Spain	13
Austria	11
Denmark	10
All others	19
	<u>560</u>

ASIA

Japan	126
Korea	33
India	29
Philippines	24
Turkey	22
Republic of China	16
Israel	11
Egypt	10
All others	60
	<u>331</u>

TOTAL FOREIGN MEMBERSHIP 1,733

TOTAL U.S. MEMBERSHIP 6,114  
7,847

MEMBERSHIP GRAND TOTAL

SOUTH AMERICA

Brazil	41
Chile	24
Venezuela	23
Peru	20
Colombia	15
All others	10
	<u>133</u>

AFRICA

South Africa	30
Nigeria	22
Zambia	14
All others	10
	<u>76</u>

NORTH AMERICA

Canada	468
Mexico	48
All others	14
	<u>530</u>

AUSTRALIA and NEW ZEALAND

Australia	97
New Zealand	6
	<u>103</u>

TMS-AIME MEMBERSHIP BY GRADE CLASSIFICATIONJANUARY 1, 1984

Member	4,525
Associate Member	1,151
Junior Member	1,802
Student Member	3,318
Honorary Member	11
Senior Member	326
Life Member	5
Rocky Mountain	2
Legion of Honor	25
	<u>11,165</u>

## PROFESSIONAL ACTIVITIES

### ABET

New Program and General Criteria were under discussion during 1983 and received approval from the Education Accreditation Commission. The new Program Criteria will be used in 1984-85 visits but the revised General Criteria, still under study, will not be in use until 1985. At that time, the present guidelines will become obsolete and ABET will operate under a unified criteria system.

The ABET Visitors' Training Session will be held during the Annual Meeting. Two new members have been added to the E&PA Committee and they will be required to attend this training session before they can qualify as an ABET Visitor. All current visitors are invited to attend the training sessions to refresh and update their skills as an ABET Visitor.

### PROFESSIONAL REGISTRATION

TMS-AIME contributes to the preparation of examination questions and guidelines through this Subcommittee of the Education and Professional Affairs Committee and the NCEE. This Subcommittee of approximately six members, plus 12-15 contributing members, prepare the questions used by the various states administering the professional registration examination. The PEAC has recommended that the categories and aspects used to develop the Item Specific Scoring Plan be reconsidered. Simultaneously, the Uniform Examinations and Qualification Committee reached the same conclusion. We in TMS are now free to develop our own criteria for grading. This information will be discussed and acted upon at the E&PA Committee meeting in February 1984.

### HONORS & AWARDS

The TMS-AIME Board of Directors has elected the following members to the grade of Fellow for 1984:

Hubert I. Aaronson  
Charles J. McMahon  
Alexander R. Troiano

The following awards will be presented by The Metallurgical Society of AIME to recognize our 1984 award recipients:

### ROBERT LANSING HARDY GOLD MEDAL

William Craig Johnson is the recipient of the Robert Lansing Hardy Gold Medal in recognition of exceptional promise of a successful career in the field of metallurgy. This award is given annually to a metallurgist who has not reached his/her thirtieth birthday before the end of the calendar year during which the selection is made.

CHAMPION H. MATHEWSON GOLD MEDAL

James W. Evans will be the recipient of the Champion H. Mathewson Gold Medal for his highly significant contributions to chemical process metallurgy in the areas of gas-solid reactions, electromagnetically driven flows and electrowinning.

EXTRACTIVE METALLURGY SCIENCE AWARD

Jogeshwar Sahai and Roberick I.L. Guthrie are the recipients of this award for their paper entitled "Hydrodynamics of Gas Stirred Metals, Parts I and II" published in METALLURGICAL TRANSACTIONS B, June 1982.

EXTRACTIVE METALLURGY TECHNOLOGY AWARD

E.G. Parker, D.R. McKay, H. Salomon-De-Friedberg, all of Cominco Limited, have been selected for this award for their paper entitled "Zinc Pressure Leaching At Cominco's Trail Operation."

EXTRACTIVE METALLURGY LECTURER

Peter Tarassoff was selected as the Extractive Metallurgy Lecturer for 1984 and the title of his lecture is "Process R&D - The Noranda Process".

WILLIAM HUME-ROTHERY AWARD

Henry Ehrenreich is the recipient of the William Hume-Rothery Award for 1984 for his outstanding scholarly contributions to the science of alloys.

ACTA METALLURGICA GOLD MEDAL

Jacques Friedel, University of Paris South, France is the 1983 recipient of this international award recognizing outstanding contributors to materials science.

ASM/TMS-AIME JOINT DISTINGUISHED LECTURE IN MATERIALS AND SOCIETY

Nathan E. Promise1 is the 1984 Lecturer.

INSTITUTE OF METALS LECTURER AND R.F. MEHL AWARD

Guy M. Pound is the 1984 recipient of this award and the topic of his lecture is "Perspectives on Nucleation."

ACKNOWLEDGMENT

Appreciation is extended to all members, Officers and Directors of The Metallurgical Society of AIME. Special thanks to President Wadsworth.

Thanks also to the staff who have performed most admirably. The staff as of January 1, 1984, by position:

<u>TITLE</u>	<u>NAME</u>	<u>YEARS OF SERVICE</u>
Executive Director	Alexander R. Scott	13
Administrative Assistant	Gayle Geddes	2
Director of Administration	Peter DeLuca	10
Meetings Manager	Marilyn Zabel	6
Program Coordinator	Barbara Kamperman	1
Membership Promotion Coordinator	Mark O'Connor	2
Administrative Assistant	Joanne Melder	4
Computer Services Manager	Frank Denio	6
Data Entry Clerk	AnnaMarie Ness	2
Publications Order Assistant	Judy Connolly	-
Administrative Assistant	Mary Jane Alsing	4
Managing Editor, JOM	Gail Oare	3
Advertising Manager	Linda Morgan	6
Book Production Coordinator	Elizabeth Luzar	1
Book Production Assistant	Mary Jo Jerome	-
Administrative Assistant Book Production	Patricia Kwiatek	5
Senior Graphic Artist	Robert Makowski	3
Graphic Artist	Michael Tarquinio	-
Mail Room Clerk	Thomas Schnarrengerger	-

Respectfully submitted,



Alexander R. Scott

**IRON & STEEL SOCIETY OF AIME**  
**REPORT**  
**OF THE**  
**EXECUTIVE DIRECTOR OF THE IRON AND STEEL SOCIETY OF AIME**  
**FOR 1983**

The severe economic recession that struck the iron and steel industry in mid 1982 carried over throughout the first 8 months of 1983. Steel production bottomed in December of 1982 at its lowest point since the thirties. Production has risen gradually throughout 1983, but capacity utilization in the steel industry did not exceed 60% until the final months of 1983. The huge reduction in the work force of the iron and steel industry also continued throughout 1983. The labor reductions which took their toll last year primarily in the labor bargaining units, continued in 1983. These reductions were manifested among professional managers primarily in early retirement programs. The impact on the Iron and Steel Society is shown in the member census of 6133 which is 381 off from last year or 5.8% decline in membership.

1984 is the tenth year of the Iron and Steel Society. A membership promotion campaign highlighting the accomplishments of the Society during its first decade was initiated at the 41st Electric Furnace Conference in Detroit in December. The campaign will be carried throughout 1984.

From the financial standpoint, Society revenues decreased 17.7% from \$1,211,310 to \$996,339. All revenue producing areas of the Society with the exception of continuing education reported decreases as compared with 1982. Society expenses decreased 11% from \$1,185,000 in 1982 to \$1,054,000 in 1983.

At year end 1983, AIME assets under custodial assignment to the Iron and Steel Society amounted to \$1,019,742 up 2% from year end 1982. The operating reserve fund at year end was \$352,000. The Award Fund stood at \$109,572.

The economic downturn impacted on all areas of the Society Conference registration at the spring Iron-making and Steelmaking Conferences was down 10.5 percent from the previous year and advertising revenue through July of 1983 was down 29% over the previous year.

The turnaround began in September and resulted in a 50% increase in attendance at the Mechanical Working Conference held in October and almost a 30% increase in attendance at the Electric Furnace Conference held in December. The turnaround was further exemplified in the November Iron and Steelmaker which had the second largest number of advertising pages ever published.

The number of exhibitors at the Electric Furnace Conference in December was also a record and for the first time there was an exhibit at the Mechanical Working Conference. Details of these figures can be found in the ensuing pages.

A new Data Point computer system was installed in May and was on line by the end of June. The system services five word processing stations in addition to maintaining all of the membership roles and all of the accounting and conference registration. The start-up and transition from the replaced system was relatively trouble free. The initial operation of the new equipment gives every indication of meeting all of the initial goals projected.

A new Society publication *ISS-AIME Newsletter* was published seven times in 1983 and was distributed to 18,000 recipients including members of the Iron and Steel Society. The Newsletter was used primarily to report on Society affairs, awards, and information relating to conferences, including calls for papers. Response to the new publication was very favorable. Six issues of the Newsletter are planned for 1984.

The first of a series of reference texts on Continuous Casting was published in 1983. Volumes II and III are scheduled for publication in April of 1984 and Volume IV before year end. The revised edition of *Electric Furnace Steelmaking* is scheduled for publication in August.

In addition to the four annual conferences sponsored or co-sponsored by the Society, steering and program committees have been working toward the 4th International Agglomeration Symposium scheduled for May of 1985 in Toronto and the Fifth International Iron and Steel Congress scheduled in Washington, DC in April of 1986. The Agglomeration Symposium will be co-sponsored by ISS-AIME and the Canadian Institute of Mining and Metallurgy.



## HONORS AND AWARDS

### James B. Austin Award

The James B. Austin Award will be presented to H.N. Hubbard, Jr., 1983 President of the Iron and Steel Society of AIME. The past president award was named after Dr. Austin to honor him for his contributions of time, effort and ability towards the formation of the Iron and Steel Society of AIME.

### Distinguished Member

The grade of Distinguished Member will be presented to three members of the Society in 1984. A Distinguished Member of the Iron and Steel Society of AIME is a member of the Society who has made outstanding contributions toward the production of iron and steel, or in fields embracing the activities of iron and steel technology and the Iron and Steel Society of AIME.

The three members who will be elevated to the grade of Distinguished Member in 1984 are:

#### Norman T. Mills

"For his outstanding service to the Society and technical contributions to the industry."

#### Peter J. Koros

"For his contributions to improved quality and cleanliness of steel through his efforts in the areas of slag chemistry, deoxidation, and hot metal desulphurization."

#### Gerhard Derge

"For his numerous contributions to the scientific literature of iron and steelmaking, especially in the field of slag formation, his dedication and excellence as a teacher, and his outstanding service to Society operating committees for over forty years."

### Benjamin F. Fairless Award

The Fairless Award, established in 1954, is given in recognition of distinguished achievement in iron and steel production and ferrous metallurgy. John Macnamara is the 1984 recipient - "For his contribution to the technology of oxygen steelmaking and his continuing leadership in the development and implementation of modern steelmaking practices."

### Robert W. Hunt Silver Medal Award

The award is given for the best original paper on iron and steel. I.V. Samarasekera and J.K. Brimacombe were the 1983 recipients for their paper, "The Thermal and Mechanical Behavior of Continuous Casting Billet Moulds."

### John Chipman Award

The award was established in 1971 by the Process Technology Division of the Iron and Steel Society of AIME to perpetuate the inspiration of John Chipman's outstanding contribution to the science of iron and steelmaking by granting an award to the author(s) of the best paper of the year. In 1983 the award was bestowed upon G.A. Irons and R.I.L. Guthrie for their paper "The Kinetics of Molten Iron Desulfurization Using Magnesium Vapor."

### Charles H. Hertzy, Jr. Award

This award was established on September 24, 1960 by the National Open Hearth Steel Committee, for the best paper presented at the annual National Open Hearth and Basic Oxygen Steel Conference and published in the Conference Proceedings. Charles A. Reid, Klaus W. Heyer and Larry E. Hambly were selected in 1983 for this award for their paper, "The LBE Process at Stelco."

### Josef S. Kapitan Ironmaking Conference Award

The 1983 award was presented to Y. Abe, T. Nishi, Y. Ishikawa, M. Kase, K. Ono and M. Sugata for their paper, "Influence of Post Reaction Strength of Coke on Blast Furnace Operation." This award is given to the best paper presented at the annual Ironmaking Conference.

### Joseph Becker Award

This award is given for distinguished achievement in coal carbonization and in 1983 the award was presented to T. Miyazu.

### **Michael Tenenbaum Award**

This award was established in 1971 as the Mechanical Working and Steel Processing Division's highest award, given for the best paper presented at the previous year's conference and published in the proceedings. The award was renamed the Michael Tenenbaum Award in 1978 honoring one of the earliest chairmen of the Mechanical Working and Steel Processing Committee. In 1983 the award was presented to Y. Funyu, T. Okumura and F. Togashi for their paper, "Development of an On-Line Wall Thickness Gage for a Seamless Pipe Mill."

### **Mechanical Working and Steel Processing Meritorious Award**

This award is "runner-up" to the Michael Tenenbaum Award.

Runners-up in the Roll Technology Division for 1983 were W. Tait for his paper, "The Nature of Cold Mill Work Roll Defects, Their Detection and Their Effect on Roll Mill Performance." Runners-up in the Process Technology Division were B. Kawasaki, K. Kaneko and K. Matsuzuka for their paper, "Application of Clean Steel to Automotive Sheets." Runners-up in the Flat Rolled Division in 1983 were H. Abrams and L.A. Troman for their paper, "Vanadium Columbium Continuously Cast Desulfurized Steels for Large Diameter DSAW Linepipe Applications." Runners-up in the Bar, Rod and Semi-Finished Products Division in 1983 were J.C. Howard, D.J. Diederich and M.C. Labanow for their paper, "Improving Internal Cleanliness for Bar and Rod Products."

### **Reinartz Scholarship Award**

This annual award was established by AIME in honor of Leo F. Reinartz, a graduate of Carnegie-Mellon University to recognize an outstanding student in that university's Department of Metallurgy and Materials Science. The award, a \$3,150 scholarship, was presented in 1983 to Charles J. Kraisinger.

### **Charles W. Briggs Award**

This award is conferred for the best paper presented at the annual Electric Furnace Conference. The 1983 award was given to G. Yuasa, S. Sugiura, M. Fujine, and N. Demukai, Daido Steel Co., Ltd., for their paper, "Development of New Type Secondary Refining Process and Some Results of the Operation."

### **T.L. Joseph Award**

This award is conferred for distinguished contributions to ironmaking operations which significantly increase production or decrease the cost of production. The 1983 winner was William D. Millar.

### **J.E. Johnson, Jr. Award**

This award is given to encourage young men in creative work in the metallurgy or manufacture of pig iron. The recipient of this award must be under forty years of age when he completes the work that merits recognition. The 1983 recipient was Bruce Schiller.

### **Frank B. McKune Award**

This award is given for the best paper on open hearth or basic oxygen steelmaking written by an author or authors under forty years of age. The recipients of the 1983 award are F.J. Nahlik and E.C. Knorr for their paper, "Effect of 85% Ladle to Tundish Shrouding at Inland's No. 1 Slab Caster on Slab and Cold Rolled Steel Quality."

### **Steelmaking Conference Award**

This award is the runner-up to the Frank B. McKune Award. It was presented in 1983 to M.R. Ozgu for his paper, "Thinner Walled Ingot Molds' Mathematical Modeling of Thermal Stresses and Plant Trials with Lighter Big-End-Up Molds."

### **Howe Memorial Lecture**

The Howe Memorial Lecture was established in 1923 by the Iron and Steel Division of AIME. The lecturer is selected for his outstanding contributions to the science and practice of iron and steel metallurgy or metallography.

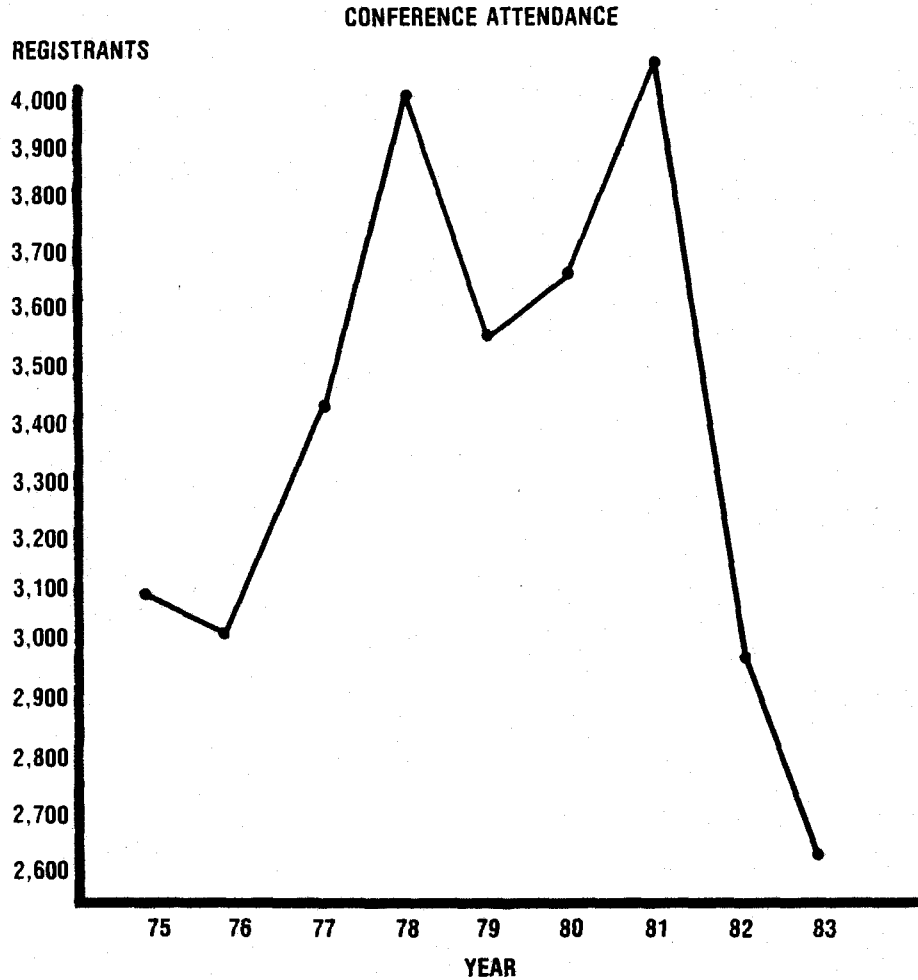
The 1983 Howe Memorial Lecturer was Michael Korchynsky. The topic of his lecture - "The Art and Science of Microalloyed Steels."

## MEETINGS DEPARTMENT

### Technical Conferences

The Iron and Steel Society of AIME, through its divisions, sponsored or co-sponsored five technical conferences during 1983. The conferences attracted 2,628 registrants.

The actual attendance at each of the conferences and the number of sessions and papers presented is listed below:



Conference	Attendance	Sessions	Papers Presented
112th AIME Annual Meeting Atlanta, GA Hyatt Regency March 6-10, 1983	77	8	54
66th Steelmaking Conference 42nd Ironmaking Conference Atlanta, GA Peachtree Plaza April 17-20, 1983	693 406	9 15	44 71

25th Mechanical Working and Steel Processing Conference Philadelphia, PA Franklin Plaza October 26-28, 1983	284	10	36
41st Electric Furnace Conference Detroit, MI The Westin Hotel December 6-9, 1983	1168	11	45
<b>TOTALS</b>	<b>2628</b>	<b>53</b>	<b>250</b>

#### Schedule of ISS-AIME Conferences for 1984 and 1985

##### 1984

February 26 - March 1	113th AIME Annual Meeting Los Angeles, CA
April 1-4	67th Steelmaking Conference 43rd Ironmaking Conference 4th Process Technology Conference Hyatt Regency Chicago, IL
October 17-19	26th Mechanical Working and Steel Processing Conference McCormick Inn Chicago, IL
December 4-7	42nd Electric Furnace Conference Royal York Hotel Toronto, Ontario

##### 1985

February 24-28	114th AIME Annual Meeting New York, NY
April 14-17	68th Steelmaking Conference 44th Ironmaking Conference 6th Process Technology Conference The Westin Hotel Detroit, MI
June 2-5	4th International Symposium on Agglomeration Royal York Hotel Toronto, Canada
October 27-29	27th Mechanical Working and Steel Processing Conference Stouffer's Inn on the Square Cleveland, OH
December 10-13	43rd Electric Furnace Conference Atlanta Hilton Atlanta, GA

### Technical Information Exchange

The Technical Information Exchange is an exhibit that is held at four Iron and Steel Society Conferences each year: The Steelmaking/Ironmaking Conference, the Electric Furnace Conference, and the Mechanical Working and Steel Processing Conference.

The purpose of the Technical Information Exchange is to provide an opportunity for supplier companies of the iron and steel industry to display their products and services by purchasing exhibit space at these conferences.

Each exhibit is held adjacent to the registration area at the conference, thus promoting maximum interchange between conference attendees and representatives from the supplier companies.

Results of the TIE exhibits held during 1983 are as follows:

Conference	Number of Exhibitors
66th Steelmaking Conference and 42nd Ironmaking Conference	33
25th Mechanical Working and Steel Processing Conference	10
41st Electric Furnace Conference	73

### CONTINUING EDUCATION

In 1983 the Iron and Steel Society held a total of eight short courses - four at national conferences, three in conjunction with local section meetings and one not tied to any other activity drawing attendees from a specific region. A total of 265 people attended these eight courses.

Total attendance at short courses in 1983 was up 28 percent over 1982. Also, the number of courses increased by two over 1982.

More important was the activity in development of new courses for the future. It is the intent of the Society's Continuing Education Committee to increase the variety of topical courses offered and continue to expand the program into the local section and regional areas.

The 1983 Continuing Education Program included:

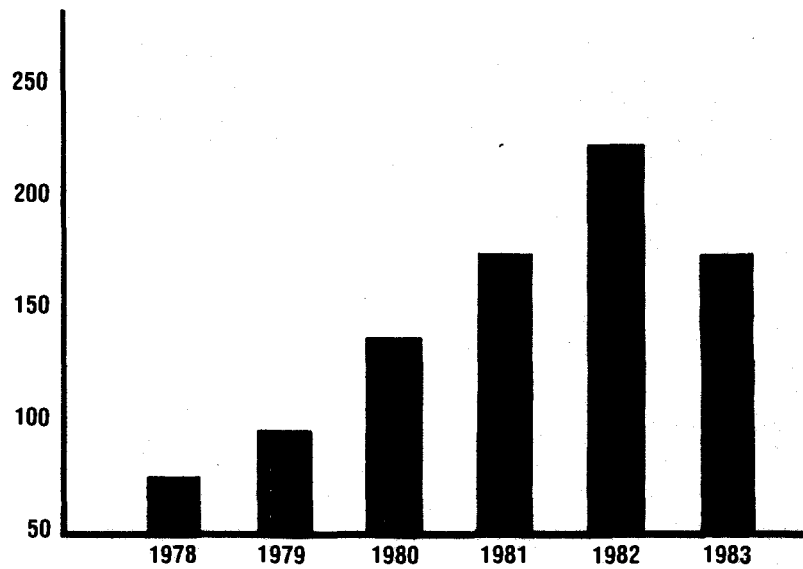
Date	Topic	Attendance
April 17, 1983	The Role of Slags in Steelmaking	28
April 17, 1983	Bottom Pouring	54
October 20, 1983	The Role of Slags in Steelmaking	23
October 26, 1983	Clean Steels	28
November 7-9, 1983	Continuous Casting	16
November 10, 1983	The AOD Process	28
November 10, 1983	Bottom Pouring	40
December 6, 1983	Tonnage Maximization of Electric Arc Furnace Steel Production	48
	Total Attendance	265

## PUBLICATIONS DEPARTMENT

The depressed state of the iron and steel industry in 1983 created many challenges to be overcome by the Society's Publications Department. Foremost among these challenges was how to fulfill, during depressed economic times, the Society objective of disseminating information.

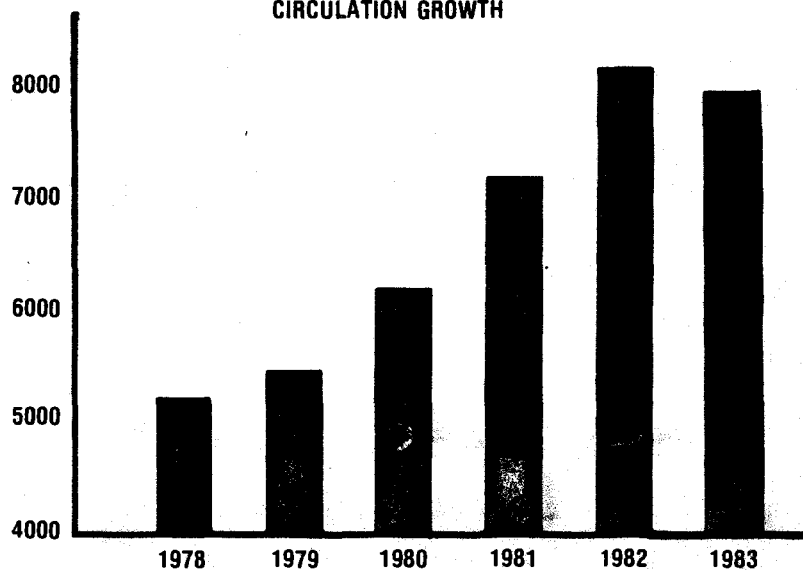
The number of pages of advertising in *Iron & Steelmaker*, the Society's monthly publication, slipped by 26 percent in 1983.

### ADVERTISING PAGES



This reduction when coupled with the four percent drop in the magazine's circulation forced the reduction of the number of pages published in the magazine. This was done to reduce printing and publication costs.

### CIRCULATION GROWTH



Despite the drop in the number of pages published, the Publications Staff was able to increase the number of technical articles published. In 1983, 65 technical articles were published, an increase of six technical articles over 1982's total. The following table lists, by subject, the number of technical articles printed in 1983.

Category	Number of Articles
Blast Furnace	4
Continuous Casting	5
Direct Reduction	3
Electric Furnace	2
Ferrous Alloys	1
History	1
Metallurgy	8
Oxygen Steelmaking	4
Raw Materials	4
Refractories	3
Rolling - Mechanical Working	7
Steelmaking	8
Technology & Economics	15
Total	65

The Publications Staff was able to increase the number of technical articles published by increasing the editing of the articles and by shifting other material into the newly created *ISS-AIME Newsletter*. This new publication was created to promote Society activities, awards and publications. Seven issues were published in 1983. This new publication enabled the Publications Staff to increase the number of technical articles in *Iron & Steelmaker* while at the same time giving new and expanded coverage of Society events.

The Publications Staff also produced four conference proceedings:

*Electric Furnace Proceedings*, 1982, Volume 40  
 Kansas City, MO  
 413 pages, 50 papers

*Ironmaking Proceedings*, 1983, Volume 42  
 Atlanta, GA  
 696 pages, 73 papers

*Steelmaking Proceedings*, 1983, Volume 66  
 Atlanta, GA  
 405 pages, 48 papers

*Mechanical Working and Steel Processing Proceedings*, 1982, Volume 20  
 Houston, TX  
 566 pages, 33 papers

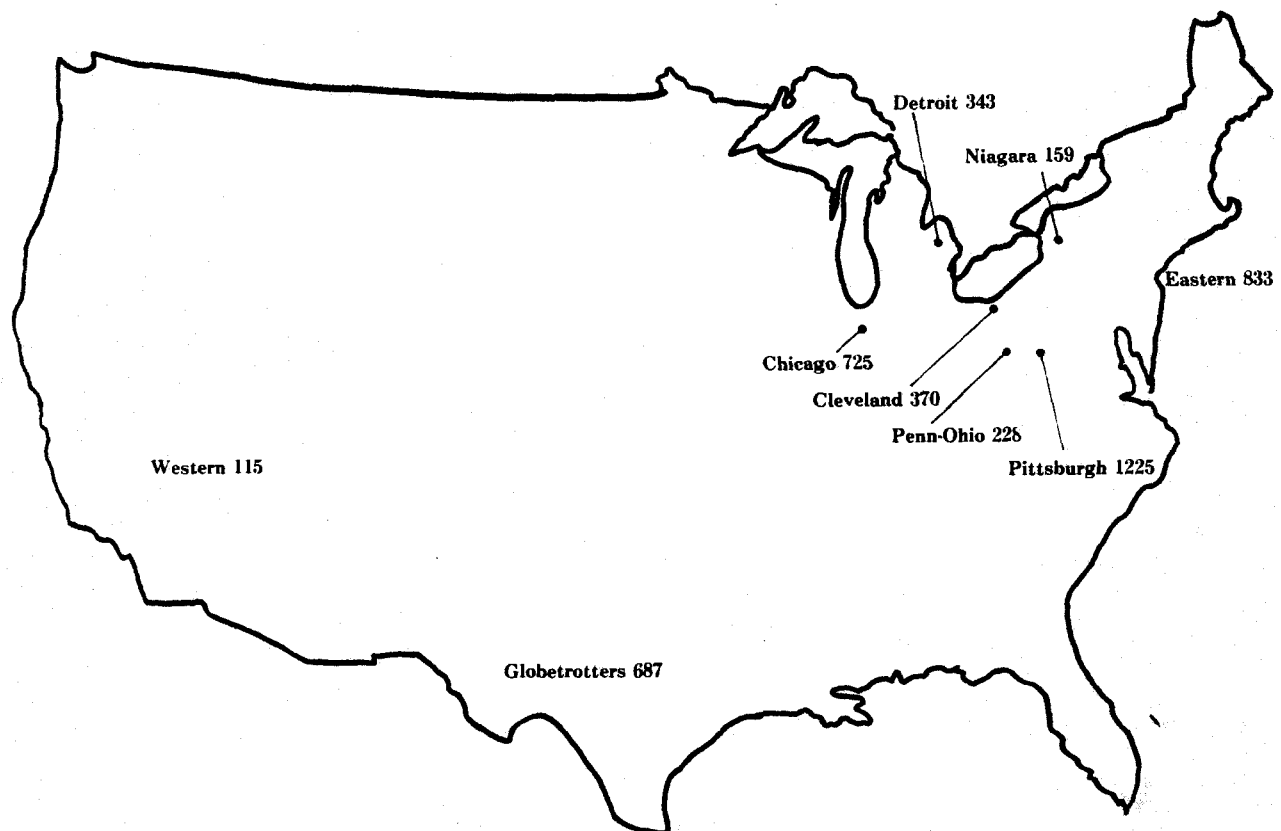
The following specialized text was also published:

*Continuous Casting, Chemical and Physical Interactions During Transfer Operations*, Volume 1  
 155 pages, 13 papers

### ISS-AIME LOCAL SECTIONS

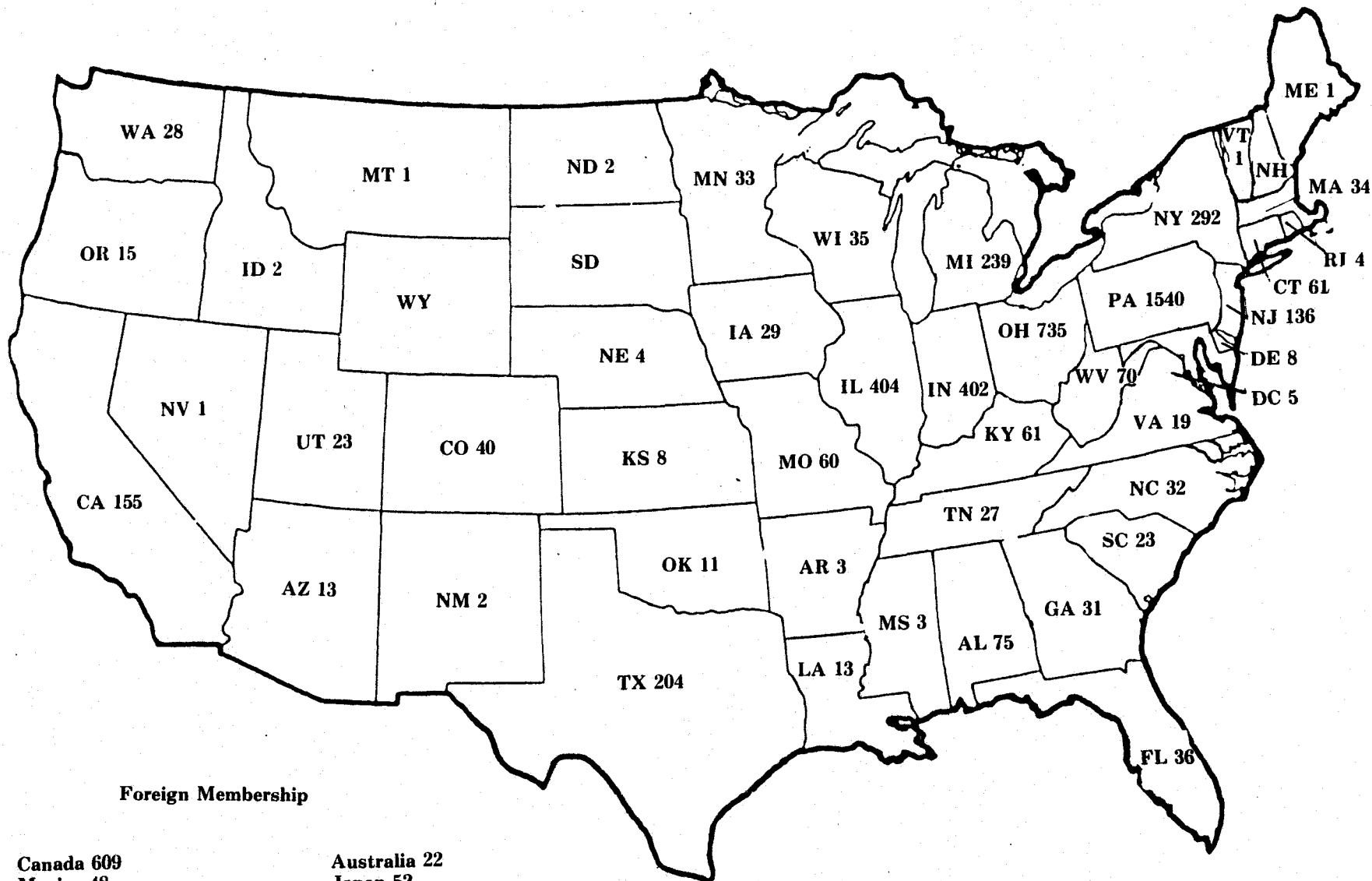
The nine sections administered by the Iron and Steel Society are listed below with the number of AIME members in good standing. The map illustrates the geographic distribution of members by section.

1. Chicago Section of AIME	725
2. Cleveland Iron and Steel Section of AIME	370
3. Detroit Iron and Steel Section of AIME	343
4. Eastern Iron and Steel Section of AIME	833
5. Globetrotters Iron and Steel Section of AIME	687
6. Niagara Section of AIME	159
7. Penn-Ohio Section of AIME	228
8. Pittsburgh Iron and Steel Section of AIME	1225
9. Western Iron and Steel Section of AIME	115





**MEMBERSHIP DEPARTMENT**



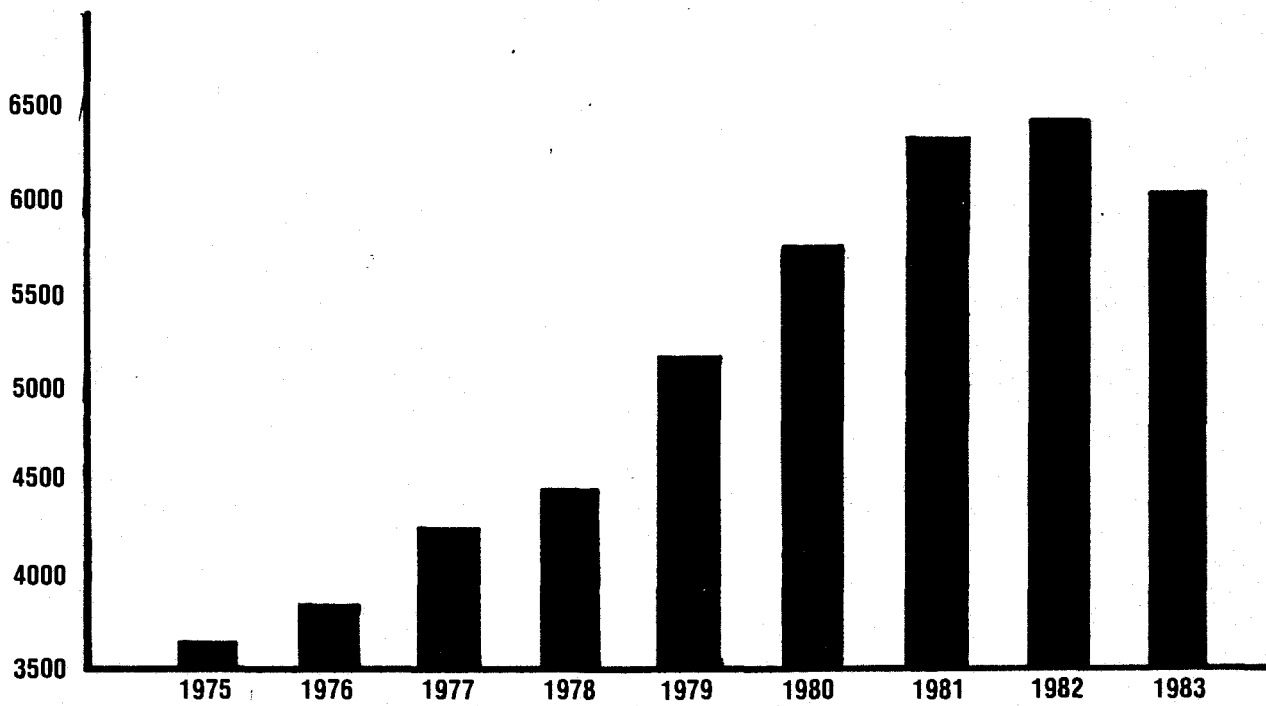
**Foreign Membership**

Canada 609  
Mexico 48  
Europe 284  
South America 46

Australia 22  
Japan 52  
Africa 22  
Other 54

**\*Corporate Membership**

Year	Number
75	3636 <b>**</b> (596) Joint
76	3885
77	4239
78	4470
79	5150
80	5772
81	6355
82	6428
83	6035



\* Student members are not included in corporate membership.

\*\* In 1975 there were 596 joint members of TMS and ISS. Joint membership was discontinued in 1976.

## OFFICERS OF THE IRON AND STEEL SOCIETY OF AIME

Howard N. Hubbard, Jr.  
 Ralph T. Brower  
 J.S. Anslow  
 George W. Knepshield

President  
 President-Elect  
 Past President  
 Treasurer

IRON AND STEEL SOCIETY OF AIME  
HEADQUARTERS STAFF

Lawrence G. Kuhn	Executive Director and Publisher
Frederick C. Motts	General Manager
Thomas McAloon	Manager - Publications
David Staniszewski	Business Manager
Peg Simanaitis	Marketing & Advertising Manager
Elizabeth M. McGrath	Membership Services Manager
Bernard Queneau	Technical Editor
Altha Shoup	Administrative Assistant
Helen Slack	Special Projects
Leo Priore	Graphics/Production Magazine
Robert Burger	Graphics/Production
Martha Novak	Accts. Receivable/Fulfillment Clerk
Vi Wasielewski	Membership Fulfillment
Julie Pyles	Conference Secretary
Melinda A. Sample	Graphics Assistant
Lelia Fisher	Clerk

Respectfully submitted,



Lawrence G. Kuhn  
 Executive Director

REPORT  
of the  
EXECUTIVE DIRECTOR, SOCIETY OF PETROLEUM ENGINEERS OF AIME

OVERVIEW

Compared with 1981 and 1982, 1983 was a tumultuous year for the worldwide petroleum industry, marked by sharply lower prices for crude oil and natural gas, lower demand for energy supplies, and accompanying declines in active drilling rigs, demand for petroleum engineers, and overall operating levels. Likewise, the Society of Petroleum Engineers had lower income from meetings and publications. The long-range picture remains positive both for the industry and for SPE, although the rate of growth is projected at lower levels than for the most recent 5-year period.

SPE's continued efforts to assume a worldwide scope were enhanced by new meetings and by the establishment of additional local sections. Despite the significant drop in industry activity from 1981 and 1982 levels, membership growth remained strong. Society membership at year-end approached 53,000, a new record.

The Society added two new local sections--the Ivory Coast and Western Australian sections--bringing the worldwide total to 84, of which 24 are outside the U.S.

SPE increased educational support through its scholarship programs. Local-section contributions plus SPE matching funds to support undergraduate engineering students totalled more than a quarter million dollars.

NEW HEADQUARTERS

The SPE Foundation broke ground in February for a new headquarters facility for the Society of Petroleum Engineers in Richardson, TX. SPE is scheduled to move into the new building in mid-1984. The headquarters will encompass 48,000 sq ft, providing for expansion to 80,000 sq ft.

The building project is the first phase of a \$6 million endowment program for the SPE Foundation, which supports SPE technical-information and academic programs that benefit petroleum engineering and the public.

MEMBERSHIP

SPE gained 5,499 members in 1983, sustaining its strong membership growth. Worldwide membership at year-end 1983 was 52,969, up 11.6%

over the year-end 1982 figure. Growth continued internationally in response to the Society's efforts to expand meetings, publications, and services worldwide. The table below shows membership by classification.

Membership by Classification

	<u>1983</u>	<u>1982</u>	<u>% Increase</u>
Member	23,492	21,320	10.2
Associate Member	8,700	8,170	6.5
Junior	15,707	12,643	24.2
Associate Junior	1,375	1,302	5.6
Student	3,695	4,035	(8.4)
TOTAL	52,969	47,470	11.6

Seven local sections were recognized during the 1983 Annual Meeting for outstanding membership development: Thailand, Pensacola-Mobile (U.S.A.), Western Wyoming-Rock Springs (U.S.A.), Salt Lake Petroleum (U.S.A.), Kalimantan (Indonesia), Saudi Arabia, and London Petroleum (U.K.). J.W. Meeuwig with ARAMCO in Saudi Arabia received the 100-Member Award for his exceptional membership recruitment efforts.

Acknowledging the current difficult job market for petroleum engineering graduates, the SPE board approved provisional Junior Member status for graduating Student Members unable to find employment in the petroleum industry. Graduates who have not found petroleum-industry jobs may remain in this provisional category as long as 18 months.

LOCAL SECTIONS

Volunteer efforts by members at the local section level remain one of the Society's greatest strengths. Section members devote much time to organizing high-quality technical symposia, conferences, and continuing-education programs. These activities offer SPE members many opportunities to improve their technical competence and to grow professionally.

Local sections have increased participation in the Distinguished Lecturer Series, one of the most Society's most popular programs. SPE Distinguished Lecturers made 274 presentations to sections during 1983. The 1983-84 slate of speakers included George H. Bruce, Triton Engineering Services; Charles Bursell, Getty Oil Co.; Peter Chapman, Shell Oil Co.; Dennis J. Graue, SSI/Intercomp; John Horn, Phillips Petroleum Co.; Wayne B. Ingram, Seafloor Engineers; Sam Loy III, ATCO Energy Inc.; A.M. Sarem, Union Oil Co. of California; Paul Witherspoon, Lawrence Berkeley Laboratory; and Distinguished Lecturer Emeritus John C. Calhoun, retired from Texas A&M U.

The SPE Speakers Bureau, designed to assist local sections in developing programs, continues to grow with 90 volunteer speakers participating in the program. Speakers are scheduled by arrangement with local-section and student-chapter program committees.

More local sections have begun to participate in the Society's TIC Facts series, a popular feature in SPE's Journal of Petroleum Technology. This program, developed by the Technical Information Committee, is designed to communicate factual information on the petroleum industry to the general public. Six sections contributed material to JPT in 1983.

SPE officers and staff members visited 48 local sections during the year, strengthening communication efforts between SPE and the local sections. Ten regional directors and four at-large directors now act as liaison between the Society and its members, and they represent Society-level committees and local sections on the SPE Board of Directors.

#### STUDENT AFFAIRS

Student members organized new student chapters at Bee County College, Beeville, TX, and Hocking Technical College, Nelsonville, OH, bringing the number of chapters to 48. Student membership in the Society at year-end was 3,695, a decline of 8.4% from year-end 1982.

Several hundred students attended sessions at the 1983 SPE Annual Meeting. The Student Chapter Officers Workshop allowed officers to discuss chapter programs and leadership roles. The General Student Session featured a panel discussion of petroleum-industry economics, leasing, regulation, and demand for engineers. James R. Jorden, 1984 SPE president, presented the Outstanding Student Chapter Award to the Texas A&M U. chapter. This award honors the chapter that demonstrates the highest level of programming, membership development, and other key activities.

Regional student paper contests in the Gulf Coast, Rocky Mountain, Western U.S., and European regions involved students from petroleum engineering departments of 17 universities. Winners in undergraduate and graduate categories received cash awards.

#### SUPPORT FOR EDUCATION

SPE and local sections have contributed more than \$1 million during the past 7 years to support undergraduate scholarships. During the most recent year, 62 sections contributed \$143,936.88 to support 200 scholarships. Supplemental funding from SPE operating funds and the SPE Foundation totalled \$82,106.40, bringing the total amount of scholarship support for 1983 to \$226,042.28, up 4.6% from the previous year.

SPE created the G.E. Archie Memorial Scholarship program in 1983 to support the top engineering scholars nominated by local sections. This program, which recognizes Archie's pioneering achievements in logging technology, is endowed by the SPE Foundation's Archie Fund.

Four SPE Regions awarded graduate fellowships in petroleum engineering. Each fellowship totals at least \$5,000 with \$2,500 funded by the Society and the remainder by participating sections in a region. Participating regions, recipients, and their schools were: Region I: Bryan Hassler and Eric Carlson, U. of Wyoming; Region VI: John Broman, U. of Texas, and David Bryant, Louisiana State U.; Region VII: Jerry Jensen, U. of Texas; Regions VI and VII: Richard Thrasher, U. of Texas; and Region IX: Robert Enrick, U. of Pittsburgh.

The PESA Scholarship Program, administered by SPE in cooperation with the Petroleum Equipment Suppliers Association, awarded \$4,000 in scholarship funds to outstanding petroleum engineering students. Ronald Oligney, U. of Alaska, received a \$1,200 junior scholarship. Rock Petty, Texas Tech U., and Monty Kehl, U. of Wyoming, each received a \$1,400 senior scholarship.

The Society affirmed its support for engineering education by making awards totalling \$18,000 for excellence in teaching, research, and student support. Recipients of 1983 SPE Distinguished Achievement Awards for Petroleum Engineering Faculty included Don Adams, Oklahoma State U.; Edward F. Blick, U. of Oklahoma; Iraj Ershaghi, U. of Southern California; Don W. Green, U. of Kansas; A.C. Reynolds Jr., U. of Tulsa; and W.D. Von Gonten, Texas A&M U. Each award included a \$3,000 honorarium.

## MEETINGS

Strong participation in SPE's regional and international meetings and in the Annual Technical Conference and Exhibition reflected the continuing importance of the Society's mission to disseminate petroleum engineering technology. Meeting attendance maintained the level of 1982 despite the downturn in overall industry activity.

Total attendance at 15 meetings in 1983 exceeded 106,000. The total includes the Offshore Technology Conference (OTC) in Houston, which SPE co-sponsors with 10 other engineering societies. OTC registration fell to 58,775 from 108,000 in 1982, reflecting lower industry operating levels and sharply reduced activity offshore.

More than 11,000 registrants attended the 58th Annual Meeting in San Francisco. While falling short of the record of 11,500 set in 1982, registration was greater than anticipated. More than 1,300 attended the keynote session, "Industry Perspective: Keys to the Future." The remaining 46 sessions included more than 250 technical papers.

About 350 exhibiting companies displayed products and services in the exhibition hall, site of the meeting's social highlight, the Wine and Cheese Tasting Party.

SPE sponsored or cosponsored 13 regional, topical, and international meetings in 1983. One highlight was Offshore Europe in Aberdeen Sept. 16-19. The Society participated for the first time as an official sponsor of this major conference and exhibition focusing on North Sea activity. More than 24,000 engineers, managers, and technical specialists registered for the conference, which included 37 technical papers and an exhibition with more than 800 companies.

SPE and IADC cosponsored their first joint Drilling Conference in New Orleans Feb. 20-23. This event attracted more than 1,800 drilling professionals from the producing and contracting sectors of the petroleum industry. The program featured more than 60 timely technical papers and special breakfasts and luncheons. Many registrants applauded the efforts of SPE and IADC in furthering communication among members of the two organizations.

The Third Middle East Oil Technical Conference and Exhibition in Bahrain March 14-17 drew more than 4,800 registrants from throughout oil-producing areas of the Middle East. The meeting continued as the premier event spotlighting the growing body of technical expertise centered in that region; it featured 71 technical papers and more than 350 exhibiting companies.

The California Regional Meeting in Ventura March 23-25 attracted record attendance of more than 1,400. The expanded technical program included a wide variety of topics and the associated exhibition featured a record 95 exhibiting companies.

The fifth SPE Forum Series, held during August at a new site in Jackson Hole, WY, drew more than 300. This meeting series is designed to accelerate informal technical exchanges among industry leaders.

#### PUBLICATIONS

During 1983 the Society's periodical and book programs recorded several "firsts" and enlisted more members than ever before in writing, reviewing, and publishing technical information for petroleum engineers and managers. Members of eight publications committees directed work on more than 25 book volumes and on the varied contents of the Society's three periodicals.

JPT, SPE's principal journal and monthly communication with members, presented 148 technical papers in 1983, complementing its coverage of Society events, programs, and issues of interest to 54,000 readers. A Distinguished Author Series Committee was created last year in response to the popularity of these state-of-the-art technology summaries in JPT.



Circulation reached 15,500 for the bimonthly Society of Petroleum Engineers Journal, which published 90 technical papers during the year. The 90 members of the Editorial Review Committee screened nearly 1,000 technical papers submitted for publication in both journals. (More than 2,130 pages of technical pages from these journals will appear in the 1983 Transactions volume.) The committee for Enhanced Oil-Recovery Field Reports expanded the data included in its semiannual reference periodical, which recorded a 17% increase in circulation during 1983. Finally, SPE distributed its 1983 membership directory to all members for the first time as the 13th issue of JPT. The 450-page Annual Review and Membership Directory issue included Professional Trends, Technology Review, SPE Annual Review, and Ninth Annual Salary Survey features with listings of SPE members.

The Monograph Committee published its eighth volume, Miscible Displacement, and began final production on three more titles and the first revision of an existing Monograph--Cementing. In addition, the SPE Board authorized the committee to publish books in a new Series on Special Topics that addresses highly specialized engineering interests; the series' first title also was authorized--Completion/Workover Fluids: Solids-Free Brines. Following late 1982 publication of SPE's first textbook (Well Testing), the Textbook Committee brought two more of its five book projects to final production. The Reprint Series books Offshore Production Operations and Economics and Finance (SPE's first book on this topic) appeared in 1983. More than 200 authors began revising chapters of SPE's popular two-volume Petroleum Production Handbook in 1983. At year-end, more than 75% of the new edition's 59 chapters were revised, in review, or being typeset in this program to update the 1961 text of the manual.

The Society took several steps to enhance programs supporting these publications during 1983. The SPE Board (1) authorized implementation of a revised SPE Metric Standard that calls for dual units (customary and SI metrics) in technical papers, books, and continuing education materials and (2) approved several ad hoc committee recommendations to speed Editorial Review Committee decisions and provide more concise presentation of papers in the two journals.

A computer program that reports the status of technical papers in review also came on line during 1983. The Symbols and Metrication Committee completed consolidation and editing of standard letter symbols published originally in 11 separate documents; publication of the consolidated list is scheduled for 1984.

The Society added some 1,000 titles to the SPE Microfiche Collection (which includes more than 12,000 papers dating from 1957) and increased coverage of SPE technical publications on information-retrieval data bases managed by Tulsa Abstracts and by Engineering Index Inc. All these publications efforts aim at maintaining SPE's fundamental role as a leader in disseminating technical information for petroleum engineering professionals.

1983 SPE MEETINGS

<u>Meeting</u>	<u>Location</u>	<u>No. of Registrants</u>	<u>No. of Papers</u>
IADC/SPE Drilling Conference	New Orleans	1,888	66
Production Operations Sym.	Oklahoma City	779	33
Hydrocarbon Economics and Evaluation Symposium	Dallas	708	34
Middle East Oil Technical Conference and Exhibition	Bahrain	4,871	71
California Regional Meeting	Ventura	1,435	81
Offshore Technology Conference	Houston	58,775	190
Low-Permeability Gas Reservoirs Symposium	Denver	674	53
Rocky Mountain Regional Mtg.	Salt Lake City	450	44
Oilfield and Geothermal Chemistry Symposium	Denver	174	34
Forum Series	Jackson Hole, WY	307	N/A
Offshore Europe	Aberdeen	24,241	37
SPE Annual Technical Conference and Exhibition	San Francisco	11,022	261
Eastern Regional Meeting	Pittsburgh	417	26
Production Technology Sym.	Lubbock, TX	293	16
Reservoir Simulation Sym.	San Francisco	354	43
TOTAL		106,388	989

## CONTINUING EDUCATION

The Society presented a record 10 short courses at the 1983 Annual Meeting in San Francisco. More than 300 people attended these courses, several of which were presented for the first time. A notable success was the new course on Microcomputer Applications. The Continuing Education Committee is expanding the list of SPE courses available for presentation at regional and topical meetings and at the local section level.

The committee completed work on a new SPE videotape course, Properties of Petroleum Fluids, based on a popular short course presented by W.D. McCain. This 5-hour tape incorporates state-of-the-art production techniques and computer-generated graphics that represent an improvement over previous SPE products. Committee members are optimistic that the new videotape will find wide acceptance among oil-industry users. The committee currently is updating several existing videotapes.

## AWARDS

Several Society members received awards during the 1983 Annual Meeting for outstanding contributions to petroleum engineering technology and for service to the industry and the profession.

- |   |   |
|---|---|
| John Franklin Carll Award               | - Kermit E. Brown, Floyd M. Stevenson<br>Professor of Petroleum Engineering,<br>U. of Tulsa   |
| Lester C. Uren Award:                   | - Harley Y. Jennings Jr., senior<br>research associate, Chevron Oil<br>Field Research Co.   |
| DeGolyer Distinguished<br>Service Medal | - Henry J. Gruy, chairman, Gruy Cos.  |
| Cedric K. Ferguson Medal                | - Ronald L. Sparks, area operations<br>manager, Union Texas Petroleum Corp.   |
| SPE Distinguished<br>Service Award      | - Edward E. Runyan, chairman and<br>president, Bell Petroleum Services;<br>James A. Klotz, supervisor of wellbore<br>mechanics, Union Oil Co. of California |

SPE Regions presented their first Regional Service Awards honoring outstanding contributions at this organizational level. Recipients were: Region II, Martin Hegglund, Denver, CO; Region III, Roy L. Bulls, Spearman, TX; Region VI, A.B. Waters, Duncan, OK, A.E.F. Howard, Tyler, TX, and E.J. Fischer, Dallas, TX; Region IX, Carl Sherman, University Park, PA; and Region X, Cliff Callis, London.

The board also authorized creation of three new technical awards:

the SPE Drilling Engineering, Production Engineering, and Reservoir Engineering awards.

#### FINANCE

The Society's 1983 income from operations was \$7,424,300 with expenses of \$7,273,400.

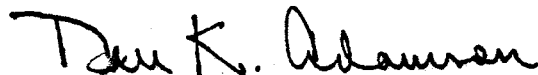
#### 1984 Executive Committee, Society of Petroleum Engineers of AIME

James R. Jorden, President  
Kenneth W. Robbins, President-Elect  
T. Don Stacy, Past President  
R. Lyn Arscott, Treasurer  
Dan K. Adamson, Executive Director

#### SPE Staff Management

Executive Director  
Dan K. Adamson  
Associate Executive Director/Manager, Meetings and Exhibitions  
Douglas L. Ducate  
Manager, Member Services  
Thomas W. Pellet  
Manager, Administrative Services  
Ken D. Conner  
Publications Manager/Editor  
Jim McInnis

Respectfully submitted,



Dan K. Adamson, Executive Director  
Society of Petroleum Engineers

**The Woman's Auxiliary  
to the  
American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.**

345 EAST 47th STREET, NEW YORK, N. Y. 10017

REPORT

of the

WAAIME

During the year 10/1/82 to 9/30/83 WAAIME programs continued to progress, especially the Scholarship Loan Fund. However, the membership figures again showed the effects of the unfavorable economic conditions in our industry. Our total number of members decreased by 99 to 2,363. At the end of the year, our Sections numbered thirty-nine, including Members-at-Large as a Section and a newly formed Section, Arizona-Grand Canyon in Bagdad, Arizona.

The Scholarship Loan Fund (SLF), our basis program which qualifies WAAIME as a tax exempt organization, had an increasingly strong year aiding students sponsored by the Sections to obtain a technical education in Mining, Metallurgical & Petroleum Engineering, or related earth science fields beneficial to the mineral industries. In 1982-83 funds advanced to students came to the sum of \$ 99,402.00. The funds available any one year for SLF loans are the total of interest income from the SLF Endowment Funds, 100% of repayments, and 75% of contributions (the remaining 25% is added to the Section SLF Endowment Fund). Repayments were more than \$ 27,000.00 and contributions from the Sections totaled \$ 15,590.00. Twenty-six loan recipients completed repayment; thirty-nine graduated during the year. At the May 1983 National Board SLF Meeting fifty-five new loans were approved; they amounted to \$ 92,200.00 for the school year 1983-84 plus a carry over of \$13,450.00 for 1984-85, or a total of \$ 105,650.00. Of the fifty-five new recipients (thirty-six men and nineteen women) forty-eight are undergraduates and seven are graduate students. The major fields of study represented are Mining Engineering (18), Petroleum (7), Geology and Geological Engineering (11), Metallurgy and related fields (19). Since 1920, the WAAIME scholarship loans have amounted to \$ 1,598,834.00.

The Engineers for Tomorrow (EFT) program provides information on the earth science fields to elementary and high school students. An audio-visual distribution library of films, slide-cassettes and film strips on the mining industry is maintained by the National EFT Chairman for the benefit of the Section members and available on a loan or purchase basis. A copy of "Opportunities for a Career in Mining & Metallurgy" was made available to all interested Sections, courtesy of the Mining & Metallurgical Society of America. The Mineral Information Institute has provided the EFT library with copies of the Mineral Information Sources Catalog and the 3 Book curriculum -"Energy, Resources and Environment"- authored by John W. Christensen.

The Chest Assistance (CAS) program continues to aid students, proposed by the Sections, with funds for emergency expenses.

The Library program, through the efforts of various Sections, donated books relating to the mineral industry or science fields to school and public libraries; also, funds were contributed to colleges and school districts for the purchase of educational technical material, a service much appreciated by the recipients in their localities.

The Government, Energy & Minerals (GEM) committees had limited activity, usually in those Sections where the AIME GEM committees were well established and enthusiastic.

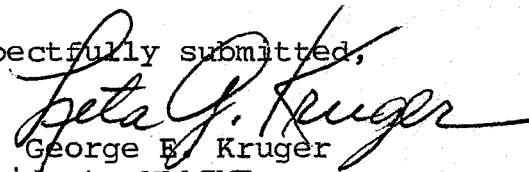
The Liaison Chairman continued to provide guidance and report on the continuing WAAIME participation and cooperation with AIME in educational, social, and fund-raising activities throughout the year.

Newsletter was sent to each member four times last year. It contained summaries of all National Board meetings and reports, articles of general interest to the membership, and Highlights of Section News & Meetings contributed by the individual Sections. A pre-convention issue was sent by first class mail to insure the receipt in time of Annual Meeting plans and details. A post-convention issue, carrying the annual reports from the Annual Meeting in addition to convention news and photographs, was inaugurated and well received.

Publicity continues to send write-ups on WAAIME activities, Section and National, to the magazines of the AIME Societies and other publications.

The members of WAAIME are proud of their role as The Woman's Auxiliary to AIME. We shall continue to strive for an excellent scholarship program and any other program designed to further the interests of the mineral industries and the professions involved. We look forward to working and cooperating with the AIME Societies' staffs and their directors in the future, as in the past, and we thank them all for their attention and assistance. We wish the new Executive Director of AIME, Mr. Robert H. Marcrum, every success in his assignment and offer any assistance we can give.

Respectfully submitted,

  
Mrs. George B. Kruger  
President, WAAIME