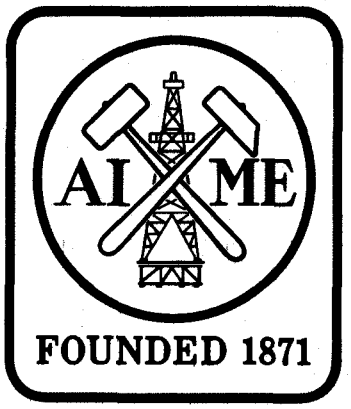
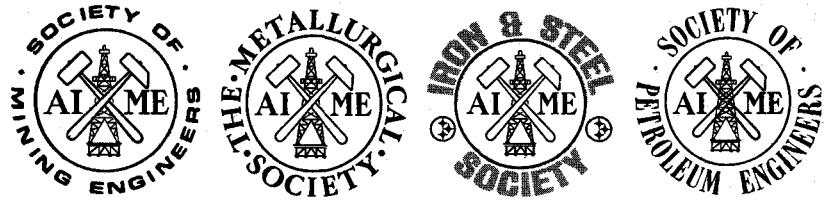
AIME Official Annual Review/1984





American Institute Mining, Metallurgical & Petroleum Engineers • 345 East Forty-seventh Street, New York, NY 10017

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

AIME

OFFICIAL ANNUAL REVIEW

1984

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REPORT OF THE
AIME EXECUTIVE DIRECTOR

Since its founding 114 years ago, AIME has undergone almost constant change to meet the changing needs of its members. Despite this dynamic past, the changes made in 1984 may be the most significant in the history of the Institute.

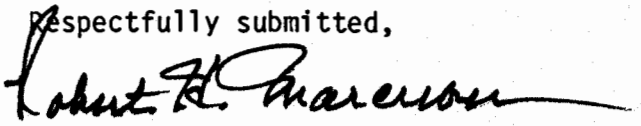
Culminating actions begun several years ago providing for an increasingly decentralized mode of operations, the AIME Board of Directors, at its meeting on February 28, 1984, gave final approval to AIME Bylaw revisions permitting the separate incorporation of the Constituent Societies, contingent upon approval of such action by the membership of each Society. During the same meeting, the AIME Board voted initial approval of a new set of AIME Bylaws to replace the existing AIME Constitution and Bylaws. These new Bylaws, which deal with the governance of the Institute in the separately incorporated structure, also required approval of the AIME-wide membership. The balloting on these matters was completed in November 1984 with the membership being solidly in favor of both issues.

As set forth in the new bylaws, AIME will function as a separate corporation, controlled jointly and severally by the Member Societies through equal representation on the new AIME Board of Trustees. AIME will serve as the unifying forum for the Member Societies to associate and cooperate to the extent that they choose. Concurrently, separate incorporation of the Societies not only brings the legal structure in line with the current functioning of the Institute, but also provides greater autonomy to the Societies, thereby enhancing their ability to respond to the needs and technical interests of their members. While much still needs to be done to insure the effective functioning of AIME in its new structure, the basic framework laid in 1984 should insure the continued growth and prosperity of the entire Institute.

As addressed in the reports of the Constitutent Society Executive Directors, the challenges confronting the minerals industry continued to affect the operations of the Societies in varying degrees in 1984. The increase in AIME-wide membership of 1.7%, to a year-end total of 100,147, is considerably less than the average annual growth rate over the past several years. Total financial resources of the Institute increased by 1.7%, ending the year at over $22,000,000.

The Institute is indebted to President Severinghaus for his dedication and contributions throughout the year, and to the Institute and Constitutent Society Boards of Directors and many thousands of members who worked on committees and meetings, presented papers, and served in the general operation of the Institute.

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 1984

The following Honors and Awards were presented by AIME in 1984, in addition to those presented by the Constituent Societies and described elsewhere in this Annual Review:

HONORARY MEMBERSHIP was conferred upon

Wayne L. Dowdey, "For his many accomplishments and technical achievements in mineral processing, particularly in equipment development; for long and distinguished service and leadership of the Society of Mining Engineers of AIME and the Institute; and for many contributions to the domestic and international mining and metallurgical comunities."

M. Scott Kraemer, "For maintaining the highest standards of professionalism as engineer and corporate executive, and through a period of more than 40 years membership in AIME during which he established an outstanding record of achievements in local section membership development and public awareness areas and for his service as President of SPE and AIME."

The JAMES DOUGLAS GOLD MEDAL to Thomas A. Henrie, "For his contributions to extractive metallurgy of silver, gold, and rare earth metals, and leadership in advancing materials and minerals technology in the national interest."

The BENJAMIN F. FAIRLESS AWARD to John MacNamara, "For his contribution to the technology of oxygen steelmaking and his continuing leadership in the development and implementation of modern steelmaking practices."

The HAL WILLIAMS HARDINGE AWARD to Nelson Severinghaus, Jr., "For his major contribution to the Society of Mining Engineers of AIME and the minerals industry as mining engineer, production manager, and chief executive specifically in the field of calcium carbonates."

The ANTHONY F. LUCAS GOLD MEDAL to Joseph E. Warren, "His work has blended a variety of scientific disciplines into petroleum engineering and management in a unique way. Expressing his insights through mathematical models has helped to identify and describe the factors that enter into the daily operation of an oil company."

The ROBERT EARLL McCONNELL AWARD to Nickolas J. Themelis, "Successful innovator, manager and educator who has a pioneering role in the application of quantitative scientific principles to practical metallurgical problems and thus improve control, reduce emissions, and increase the efficiency for new innovative or existing processes."

The ERSKINE RAMSAY MEDAL to E. Minor Pace, "For his outstanding contributions to the coal industry, both to the company for whom he worked and to the numerous coal industry organizations, including SME-AIME, for whom he has served as committeeman, director, and officer."

The CHARLES F. RAND MEMORIAL GOLD MEDAL to John E. Frost, "For his proven expertise, his innovative leadership and his service to the professions of geology and mining."

The ROBERT H. RICHARDS AWARD to Roshan B. Bhappu, "In recognition of his international accomplishments in the field of mineral processing and for his tireless efforts in applying research and development to education and engineering for the benefit of the entire minerals industry."

The WILLIAM LAWRENCE SAUNDERS GOLD MEDAL to John C. Kinnear, Jr., "For his outstanding contribution and dedication to the industry through leadership and management roles in mining and metallurgical processing of copper ores."

The ENVIRONMENTAL CONSERVATION DISTINGUISHED SERVICE AWARD to John S. Lagarias, "In recognition of outstanding professional service dedicated to achieving an acceptable balance between environmental, social, technical and economic issues in resource development."

The MINERAL INDUSTRY EDUCATION AWARD to William O. Philbrook, "In recognition of an illustrious career as an educator and as an engineering scientist and for outstanding contributions to the understanding of the process metallurgy of steelmaking."

The MINERAL ECONOMICS AWARD to Theodore Robinson Eck, "In recognition of his significant contributions in the field of energy economics and his role as economic advisor to the petroleum industry and research organizations with specific interest in resolving problems relating to energy utilization."

The ROSSITER W. RAYMOND MEMORIAL AWARD to William F. Yellig, Jr., for his paper, "Carbon Dioxide Displacemnt of a West Texas Reservoir Oil."

LEGION OF HONOR FIFTY-YEAR MEMBER INSIGNIA were conferred upon the following 59 members: Gerhard Ansel, Charles S. Barrett, R.E. Barthelemy, Roland F. Beers, Gordon K. Bell, Jr., George B. Bellows, Ihsan R. Berent, Edward J. Bloom, Weston Bourret, Robert M. Brick, James H. Cazier, Robert G. Clarke, Austin B. Clayton, Alvin G. Cook, Leander E. Cupp, Arnold C. Dahl, John Edgar, Daniel S. Eppelsheimer, David L. Evans, Frank W. Fruitman, R.O. Garrett, Thomas E. Gillingham, Carl F. Gommel, William A. Hardy, Earle T. Hayes, Robert F. Hippler, Parke A. Hodges, Fred J. Hoff, Allan H. James, O.W. Jarrell, James W. Laist, Harry B. Leonard, Woodrow W. Leonard, Richard J. Lund, Henry N. Lyle, Guy V. Martin, Robert E. Mead, Robert C. Meaders, Albert H. Mellish, Frank G. Miller, Frank R. Milliken, Victor Oppenheim, Earl R. Parker, Manoah L. Pate, Ettore A. Peretti, Stephen R. Phelan, Maurice L. Pinel, George W. Pirtle, Stuart S. Pullar, George G. Ritchie, Alan A. Sharp, Henry E. Stauss, Harold A. Steane, Richard E. Stoiber, W.E.D. Stokes, Jr., Roy E. Swift, Bruce I. Thomas, F. William Wessel, Paul F. Yopes.

Coopers &Lybrand

certified public accountants

Board of Directors,

American Institue of Mining, Metallurgical,
and Petroleum Engineers, Inc.:

We have examined the balance sheets of the AMERICAN INSTITUTE of MINING, METALLURGICAL, and PETROLEUM ENGINEERS, INC. as of November 30, 1984 and 1983, 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 1984) 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 the American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. at November 30, 1984 and 1983, 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, 1984, all in conformity with generally accepted accounting principles applied on a consistent basis.

Coopers & Lybrand

New York, New York
January 21, 1985

AMERICAN INSTITUTE OF MINING, METALLURGICAL AND PETROLEUM ENGINEERS, INC.
BALANCE SHEETS, NOVEMBER 30, 1984 and 1983

ASSETS:	1984	1983
Operating Fund:		
Cash and temporary cash investments	$ 2,714,025	$ 3,111,782
Accounts Receivable (Note 8)	1,087,827	921,368
Notes receivable (Note 3)	1,300,000	1,300,000
Inventories of publications (Note 1b)	2,244,573	2,106,438
Investments at cost (at market quotations: $4,197,997 in 1984 and $4,216,824 in 1983) (Notes 1d and 4)	3,875,423	3,150,684
Property, buildings and equipment (Notes 1c, 2 and 5):		
Land	136,034	136,034
Buildings, less accumulated depreciation of $189,512 in 1984 and $154,974 in 1983	1,163,470	1,191,376
Equipment, furniture and fixtures, less accumulated depreciation of $886,219 in 1984 and $776,856 in 1983	1,241,760	993,310
Prepaid expenses, deferred charges and other assets	420,864	193,583
	14,183,976	13,104,575
Endowment, quasi-endowment and custodian funds:		
Investments, at cost plus accrued interest (at market quotations plus accrued interest: $5,340,799 in 1984 and $5,264,597 in 1983) (Notes 1d and 4)	5,311,410	5,022,421
Cash and temporary cash investments	959,606	809,156
Loans receivable from operating fund plus accrued interest (Note 2)	661,775	682,565
Inventories of books (Note 1b)	286,855	204,540
Advance to operating fund for SME land and building investment (Note 2)	100,000	100,000
Prepaid expenses	3,380	
	7,323,026	6,818,682
Founder Society advances to United Engineering Trustees, Inc. (Note 6)	265,000	265,000
	$21,772,002	$20,188,257

LIABILITIES AND FUND BALANCES:	1984	1983
Operating fund:		
Accounts payable and accrued liabilities	$1,050,839	$ 699,518
Membership dues received in advance	1,588,502	1,255,052
Other deferred credits, principally publications and meetings	417,633	505,206
Bank note payable (Note 5)	42,000	54,000
Mortgage loan payable (Note 2)	164,230	172,490
Loans payable to endowment funds plus accrued interest (Note 2)	661,775	682,565
Advance from endowment fund for SME land and building investment (Note 2)	100,000	100,000
Annual meeting surplus fund		46,385
Surplus - unrestricted (per statement annexed)	10,158,997	9,589,359
	14,183,976	13,104,575
Endowment, quasi-endowment and custodian funds:		
Accounts payable	63,605	7,403
Fund balances (per statement annexed) (Note 1a):		
Endowment and quasi-endowment funds	6,594,318	6,105,273
Custodian funds (unrestricted)	665,103	706,006
	7,323,026	6,818,682
Property fund (no change during 1984 and 1983) (Note 6)	265,000	265,000
	$21,772,002	$20,188,257

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

AMERICAN INSTITUTE OF MINING, METALLURGICAL AND PETROLEUM ENGINEERS, INC.
STATEMENTS OF REVENUE AND EXPENSES AND SURPLUS
for the years ended November 30, 1984 and 1983

	Headquarters	Society of Mining Engineers of AIME	The Metallurgical Society of AIME	Iron & Steel Society of AIME	Society of Petroleum Engineers of AIME	Eliminations	Total 1984	Total 1983
Revenue:								
Members' dues and entrance fees	$ 68,462	$ 874,444	$ 328,642	$ 247,659	$1,342,240	$ (68,462) (1)	$2,792,985	$ 2,693,219
Advertising and publication sales		1,211,139	1,361,240	565,613	2,679,133		5,817,125	6,112,637
Appropriations from endowment funds	271,000						271,000	278,400
Offshore Technology Conference	20,449	33,709	8,738	4,519	725,049		792,464	1,090,181
Meetings	63,952	503,634	398,127	364,427	2,086,421		3,416,561	2,820,016
Interest and dividends	21,755	80,215	16,670	39,468	1,067,139		1,225,247	545,931
Net gain on sales of investments				96	230,060		230,156	4,826
Miscellaneous	34,651	68,187	20,718		140,542	(5,000) (2)	259,098	394,656
	480,269	2,771,328	2,134,135	1,221,782	8,270,584	(73,462)	14,804,636	13,939,866
Expenses:								
Publications		1,825,772	1,341,863	639,026	2,962,669		6,769,330	6,888,390
Meetings	63,680	457,508	341,647	266,240	1,765,313		2,894,388	2,821,408
Society direct expenses		467,686	443,162	241,335	2,883,652		4,035,835	3,201,539
AIME Headquarters - general administrative	405,759	19,206	6,217	4,507	38,532	(73,462)	400,759	394,761
	469,439	2,770,172	2,132,889	1,151,108	7,650,166	(73,462)	14,100,312	13,306,098
Excess of revenue over expenses	$ 10,830	$ 1,156	$ 1,246	$ 70,674	$ 620,418		704,324	633,768
Surplus (unrestricted):								
Balance, beginning of year							9,589,359	8,955,591
							10,293,683	9,589,359
Transfer to Endowment Funds							134,686	
Balance, end of year							$10,158,997	$9,589,359

(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.

AMERICAN INSTITUTE OF MINING, METALLURGICAL AND PETROLEUM ENGINEERS, INC.
STATEMENTS OF CHANGES IN ENDOWMENT, QUASI-ENDOWMENT AND CUSTODIAN FUNDS
FOR THE YEARS ENDED NOVEMBER 30, 1984 and 1983

	1984			1983		
	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	$6,105,273	$706,006	$6,811,279	$5,707,683	$554,950	$6,262,633
Revenue:						
Contributions		38,260	38,260	14,011	116,421	130,432
Net gain on sales of investments	84,692	204	84,896	279,643	1,667	281,310
Interest and dividends	475,271	51,795	527,066	461,723	55,278	517,001
Sales of books, volumes, etc.	56,899	10,183	67,082	74,025	44,663	118,688
Revenue from conferences and committee meetings, net		1,986	1,986		96,316	96,316
Royalties from oil deeds	31,265		31,265	31,587		31,587
Transfers:						
From custodian funds	75,707	(75,707)	-0-			
From annual meeting surplus	46,385		46,385			
From operating surplus	134,686		134,686			
	904,905	26,721	931,626	860,989	314,345	1,175,334
Expenses and appropriations:						
Publication expenses	72,270	5,129	77,399	123,301	41,042	164,343
Awards	37,029	42,899	79,928	20,618	34,237	54,855
Sundry expenses	35,561	19,596	55,157	41,080	88,010	129,090
Appropriations to operating funds	271,000		271,000	278,400		278,400
	415,860	67,624	483,484	463,399	163,289	626,688
Balance of fund accounts, end of year	$6,594,318	$665,103	$7,259,421	$6,105,273	$706,006	$6,811,279

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

AMERICAN INSTITUTE of MINING, METALLURGICAL and PETROLEUM ENGINEERS, INC.

NOTES TO FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

a. General

The financial statements include the accounts of Headquarters (AIME) 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 $5,283,587 and $4,880,397 at November 30, 1984 and 1983, 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 or Student Chapters 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, 1984 and 1983, 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, Building and Equipment

Land and buildings comprise the headquarters for SME in Littleton, Colorado and TMS and ISS in Warrendale, Pennsylvania. The land and buildings are recorded at 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 $34,538 and $34,246 for 1984 and 1983, 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 1984 and 1983 were as follows:

	1984	1983
Charged to publications	$ 99,115	$ 85,913
Charged to society direct expenses	197,595	186,247
Charged to AIME Headquarters	5,334	1,905
	$302,044	$274,065

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 to securities are reflected on a trade-date basis. An adjustment of 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.

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 expenses amounted to $105,364 in fiscal 1983. While no contribution was required in 1984 under the minimum funding requirements of the Employees Retirement Income Security Act of 1984 (ERISA) as determined by actuarial valuation, the normal cost of the plan for 1984 would have been $50,700 as computed actuarially. Two constituent Societies (SME and SPE) have reflected their share of such normal cost of $11,700 and $26,000 respectively in expenses.

Accumulated plan benefits and plan net assets as of the most recent actuarial valuation dates, December 1, 1983 and 1982 are as follows:

	1983	1982
Actuarial present value of accumulated plan benefits:		
Vested	$1,056,400	$1,013,800
Nonvested	42,500	52,200
	$1,098,900	$1,066,000
Net assets available for benefits	$1,884,510	$1,653,366

The assumed rate of return used in determining the actuarial present value of accumulated plan benefits was 7% per annum for both years.

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 prior year's net earnings after management fees. At November 30, 1984 and 1983, the balance of the loan plus accrued interest at 8.6% (1984) and 7.1% (1983) per annum was $247,639 and $256,448 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 installments which began May 1, 1979. At November 30, 1984 and 1983, the balance of the loan plus accrued interest was $164,230 and $172,490 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, 1984 and 1983, the balance of the loan plus accrued interest at 8.6% (1984) and 7.1% (1983) was $414,136 and $426,117, respectively.

3. Notes Receivable

SPE has notes receivable from SPE Foundation amounting to $1,300,000 at November 30, 1984. 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, 1985 or 1986. The note bears interest at the average prime interest rate and is payable annually. The notes are collateralized by land owned by SPE Foundation which lien has been subordinated to the building mortgage.

4. Changes in Investments

	1984	1983
a. Operating fund:		
Investments principally at cost, beginning of year	$3,150,684	$3,206,649
Purchases of securities	2,608,935	235,370
	5,759,619	3,442,019
Sales of securities	(2,114,352)	(296,161)
	3,645,267	3,145,858
Net gain on sales of securities	230,156*	4,826*
Investments principally at cost, end of year	$3,875,423	$3,150,684

*Includes unrealized gains of $96 for 1984 and $4,826 for 1983 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	$5,022,421	$4,921,056
Purchases of securities	4,512,383	4,866,678
	9,534,804	9,787,734
Sales of securities	4,287,801	5,058,381
	5,247,003	4,729,353
Net realized gain on sales of securities	84,896	281,310
Net change in accrued interest	(20,489)	11,758
Investment at cost plus accrued interest, end of year	$5,311,410	$5,022,421

5. Bank Note and Lines 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 bears interest at 1 - 1½% above the prime rate, is payable in monthly installments to 1998 and is collateralized by the computer equipment. The balance of the loan at November 30, 1984 and 1983 was $42,000 and $54,000 respectively.

ISS has available a line of credit equal to one-half the market value of the ISS investment in a corporate income fund and bearing interest at the prime rate lending rate plus one-quarter of one percent. The market value of the investment at November 30, 1984 was $157,754. This arrangement requires the maintenance of a compensating cash balance of $10,000 plus 10% of any amount outstanding on the line of credit. There was no activity with the line of credit in either 1984 or 1983.

SME has a $300,000 bank line of credit which expires March 31, 1985. The line would bear interest at 1% over the prime rate (prime rate at November 30, 1984 was 11.25%). Borrowing 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 1984 and 1983 was $46,425 and $69,219, 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:

Year	Amount
1985	$ 684,000
1986	682,000
1987	621,000
1988	562,000
1989	550,000
Thereafter	8,067,000

Included in the above commitments is an operating lease with SPE Foundation which requires monthly rentals of $45,833 ($549,996 annually) for office space commencing August 1984.

Rental expense was approximately $352,000 and $232,000 during 1984 and 1983, 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 share equally by the two societies and overall management is generally directed by a joint commission of the two societies. In 1983, TMS assumed the responsibility for operations and administration of the publication. As a result, TMS believes that disclosure of the combined financial activity of the joint publication is appropriate because of the extent of control now exercised by TMS. Accordingly, the accompanying financial statements reflect the total revenues ($551,411 and $554,480 for 1984 and 1983, respectively) and expenses ($512,171 and $554,063 for 1984 and 1983, respectively) of the joint publication arrangement on a comparative basis. Additionally, TMS expenses have been increased for the ASM share of the net income which amounted to $39,241 and $417 for 1984 and 1983, respectively. Accounts receivable at November 30, 1984 and 1983 include $152,329 and $133,276, 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.

10. Other

In order to prepare AIME and the constituent Societies to meet future challenges and opportunities, and to better serve their members, the Board of Directors of each Society adopted Bylaws and Articles of Incorporation which would permit separate incorporation of each Society as provided by existing AIME Bylaws. The proposed Bylaws and Articles of Incorporation were approved by the respective Society's members in November 1984; accordingly it is anticipated that each Society will be incorporated under the name of the respective Society, Inc.

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	2,825	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	1984	90,546	9,601	100,147
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.

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC. MEMBERSHIP STATISTICS January 1, 1985

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	Extr. Met EM	Mat. Dev MD	Mat. Fab. MF	Basic Sci BS	Un-class	Total	Division MNOPQ	Econ. K	Total	Drilling N	Educ. & Prof. O	Econ. & Eval. P	Well Logging R	Gas Tech. S	Geology & Geol. Eng. T	Manage-ment U	Prod. Oper. V	Reser-voir Eng. W	Fl. Mech. & Oil Rec. Proc. X	Off-shore Ops. Y	Emerg. & Persp. Tech. E	Well Comp. C	Press Trans. Test L	Un-class	Total		
M23	NEW YORK	341	128	68	46	6	80	23	692		1		10	57	83	20	44	7	222																	1		915	M23
P25	NEW YORK PETROLEUM																						29	5	78	13		10	38	27	26	27	18	5		26	302	302	P25
I-11	NIAGARA	22	12	4	2				40					20	30	11	15	1	77	145	4	149	5	2	3	2	1	2	5	1	2				4	27	294	I-11
P61	NIGERIA (LAGOS)	18	7	2	4	1			32														43	3	14	11	10	14	8	50	47	7	8	1	6	2	36	260	292	P61
M145	NORTH DAKOTA	8		47	1	1	1	3	61														1					2		1	1	2	1			1	6	14	75	M145
M25	NORTH PACIFIC	262	27	25	17	4	10	2	347					59	45	8	17	4	133	20	1	21	9		12	1		4	10	2	7	3	2			7	57	558	M25
P 4	NORTH TEXAS-SW OKLAHOMA														2				2				62	3	12	22	2	9	24	86	17	19	5	1	48	7	14	331	333	P 4
M159	NORTHEASTERN NEVADA	92	28		13		1		134					6	1	2		1	10																			144	M159
M164	NORTHEASTERN OHIO	84	39	44	21	4	6	5	203						8	8			16																			219	M164
T-8	NO. CALIFORNIA METALLURGICAL										3		1	71	148	24	80	12	339	12	1	13																352	T-8
P69	NORTHERN MICHIGAN																						11	1		6	1	6	3	16	4	1	1		8		4	62	62	P69
M22	NORTHERN NEVADA	350	41	1	10	2	5	11	420					12	3	1	1		17				2		1											1	5	442	M22
P39	NORTHERN OKLAHOMA														2				2				19	3	2	9	3	5	8	33	12	27	7	2	6	3	24	163	192	P39
P42	NORTHERN PLAINS	13	4	5	2	2	3		29					1	2				3				4	2	13		17	2	8	3	12	2	4			4	71	103	P42
P49	NORTHERN WEST VIRGINIA														1				1				31		9	17	11	13	8	17	11	6	2	2	16		18	161	162	P49
M144	NORTHWEST TEXAS	12	4	2	1				19					3					3																			22	M144
M155	OHIO MINING	67	19	113	21	1	2	2	225																													225	M155
P47	OHIO PETROLEUM																			1		1	76	7	18	28	16	34	33	64	24	28	2	2	31		25	388	389	P47
T-9	OHIO VALLEY	16	6	29	4	1	1	3	60			1	1	25	153	37	34	1	252	123		123						1		1							437	T-9
P 8	OKLAHOMA CITY																						449	24	97	88	27	53	113	403	180	36	17	5	114	5	101	1,712	1,712	P 8
M125	OKLAHOMA METALS & MINING	115	23	49	11	2	5	3	208					16	10	3	3	1	33				5		1			1		2	1							241	M125
M28	OREGON	83	16	11	4	2	1	2	119					39	21	13	12	2	87	21	1	22																240	M28
P21	PANHANDLE																						35	1	2	14	7	1	9	27	16		1		6	1	5	125	125	P21
I-13	PENN-OHIO											1		6	16	9	4	1	37	237	4	241																278	I-13
P70	PENSACOLA-MOBILE	2	3	1					6					1					1				21	2	8	2	3	3	5	27	15	1	2		3	1	9	102	109	P70
M29	PENNSYLVANIA ANTHRACITE	42	17	93	9	1	1	3	166					2	12	4	2		20				4	1						5	1						11	197	M29
P 5	PERMIAN BASIN	26	2	4	1		1		34					1					2				384	14	90	61	37	71	136	548	250	41	6	5	74	7	58	1,782	1,816	P 5
M31	PHILADELPHIA	65	35	33	19		12	3	167				2	17	65	12	28	1	130				11	1	4	1	2	3	9	7	4	17	3	1	2	1	3	65	362	M31
P77	PHILIPPINE																	6					19	1	2	1	1		1	7	6	1	2			1	3	45	77	P77
M46	PHILIPPINE	72	10	4	2	1	5	7	101					14	3				17																			118	M46
M150	PINAL MOUNTAIN	110	40		3	2	2	1	158					12					15				1													1		174	M150
T-11	PITTSBURGH										1	3	4	130	220	64	86	18	526																			526	T-11
I-14	PITTSBURGH IRON & STEEL																			1,214	29	1,243																1,243	I-14
M30	PITTSBURGH MINING	225	88	648	24	6	18	20	1,029																													1,029	M30
P57	PITTSBURGH PETROLEUM																						72	8	25	28	17	23	31	42	30	21	3	1	20	1	52	374	374	P57
M162	POWDER RIVER BASIN	36	2	140	2		2	1	183						1				1																			184	M162
P82	QATAR																						12		1	6		6	2	10	11	1	8		3		1	62	62	P82
P79	ROSWELL																						22	3	3	5	1	6	7	3	13	16			5		17	106	106	P79
M33	ST. LOUIS	104	31	183	31	4	10	7	370			1		66	59	36	22	2	186	21	2	23								1							1	3	582	M33
P74	SALT LAKE PETROLEUM																						102	6	6	10	4	26	14	36	15	8		2	12	3	8	252	252	P74
M34	SAN FRANCISCO	408	279	69	35	11	36	14	852					1	1				1	16		16																869	M34
P20	SAN JOAQUIN VALLEY	41	5	1	1		2	2	52										1				138	9	56	52	7	36	48	348	136	44	25	5	31	7	39	981	1,034	P20
P78	SANTA MARIA														1				1				17	1	3	2	1	4	6	37	16	6	3		5		5	104	104	P78
P37	SAUDI ARABIA	10	8	2	6		2		28						1				1				84	19	34	33	17	14	41	136	140	27	23	1	17	4	24	614	643	P37
M154	SIERRA NEVADA	139	29	6	9	1	6	2	192																													192	M154
P67	SINGAPORE	3	1						4														82	7	6	23	6	7	31	29	25	9	21	2	17	7	9	281	285	P67
M112	SNAKE RIVER	51	11	1	9	2	3	1	78					4	6		1	1	12										1		1						3	93	M112
P34	SNYDER	2							2														9	2	2	2	2		3	32	2	1			10	2	1	69	70	P34
P54	SOUTH LOUISIANA	3							3														99	8	4	32	3	4	16	45	17	5	38		16	22	315	318	P54
P15	SOUTH PLAINS	2			2				4														26	4	5	9	5	5	9	58	9	9	2	1	5	1	23	171	175	P15
M137	SOUTH TEXAS MINERALS	109	24	35	17	3	5	7	200					19	17	11	11	1	59																			259	M137
M157	SOUTHEAST MISSOURI	84	17	7	8	6	1	2	125					16	1	4	4		25																			150	M157
M166	SOUTHEASTERN COLORADO	55	30	19	6		1	4	115																													115	M166
M75	SOUTHEASTERN UTAH	35	11	1	2		1	1	51					1					1																			52	M75
M153	SOUTHERN ALASKA	102	7	8	5		3	8	133																													133	M153
M36	SO. CALIFORNIA MINING	386	127	39	60	5	25	12	654						1				1																			655	M36
T-12	SO. CALIF. METALLURGICAL										1		3	59	112	38	36	4	253																			253	T-12
M118	SOUTHERN NEVADA	76	15		7		6	2	106					9	4		1		14				6		1	1		3	2	1	3				1	2	20	140	M118
M151	SOUTHWEST DESERT	24	3					1	29					5	1			1	7																			36	M151
P 7	SOUTHWEST TEXAS																						321	16	39	53	25	28	70	223	83	15	24		60	5	65	1,027	1,027	P 7
M38	SOUTHWESTERN NEW MEXICO	82	38	2	1	2	5	2	132					11				1	12																			144	M38
M126	SOUTHWESTERN WYOMING	39	4	33	20	2	1	1	100																													100	M126
P27	SPINDLETOP	2	2						4								1		1				42		5	22	3	4	11	39	7	4	6	1	10		10	164	169	P27
P84	STAVANGER PETROLEUM																						200	8	27	32	10	7	32	137	210	40	157	4	35	14	80	993	993	P84
M99	TEXAS COAST MINING & METALS	247	58	95	30	4	23	11	468					27	38	12	15	2	94																			562	M99
P75	THAILAND																						23	5		6	6	2	8	14	11	4	11			7	970	97	P75
P52	TRANS-PECOS	5			2				7														69	3	9	13	6	6	17	134	43	14	2	1	31	9	17	374	381	P52
P62	TRINIDAD & TOBAGO																						43	6	6	7	16	5	16	39	30	11	4		3	1	9	196	196	P62
M156	TRINITY	151	19	82	14	1	4	7	278				1	2	25	7	7	1	43																					M156
M 2	TUCSON	581	208	15	13	7	19	13	836			1	1	65	13	3	8	3	94	4		4	4		2	1		1	1	3					1	4	18	952	M 2
P43	UINTAH BASIN																						33	4		9	2	4	4	31	3	3			9	1	110	110	P43
P65	UNITED ARAB EMIRATES	1							1					1					1				77	8	6	32	7	9	34	50	57	8	17	1	19	4	10	339	341	P65
M74	UPPER MISSISSIPPI VALLEY	19		3	2	2	2	1	29		1			3	1			1	6	2		2															37	M74
M40	UPPER PENINSULA	123	50	1	8	2	8	9	201				1	8	12	1	6	1	29					1			2								4	7	237	M40
M41	UTAH	390	152	106	15	11	20	18	712					49	20	1	5	3	78				1				1				1					3	793	M41
M90	UTAH COAL	4	2	66	1			1	74																														
P80	VICTORIA AREA																						39		4	22		3	6	25	7	1	2		10	1	8	128	128	P80
T-13	VIRGINIA	33	4	17	5		1	3	63				1	18	27	10	10	1	67																			130	T-13
M42	WASHINGTON, DC	241	35	61	32	1	38	8	416		1	2	2	48	86	22	62	6	229																			645	M42
P12	WEST CENTRAL TEXAS																						35	1	15	28	4	14	10	58	20	3			17	2	13	220	220	P12
P84	WESTERN AUSTRALIA																						45		2	15	1	9	11	13	10	4	10	2	5	3	1	131	131	P84
I-15	WESTERN IRON & STEEL																			91	3	94																94	I-15
M165	WESTERN NEVADA	59	24	2	3		2	1	91					1					1																			92	M165
P30	W. VENEZUELA PETROLEUM	1	1	1					3														4	2	3	2	1	1	6	14	25	3	1				2	64	67	P30
P71	W. WYOMING ROCK SPRGS.																						32	1	1	1	1	2	3	29	1	3			15		6	95	95	P71
P 9	WICHITA PETROLEUM	11	4	1	3	2			21				1	4	4	2	1	1	13				36	3	15	18	3	23	24	59	20	11		1	11		20	244	278	P 9
P36	WILLISTON BASIN	11	2	43					58														34	4	5	23	2	6	12	47	12	3	2		13		7	170	228	P36
M93	WISCONSIN	70	57	8	5	1	3	6	150		1		1	6	25	14	18	1	66	30		30	1				1		1							1		4	250	M93
M83	WYOMING MINING & METALS	133	21	37	18	2	7	5	223					1	1				2																			1	226	M83
P10	WYOMING PETROLEUM																						167	6	13	22	9	20	30	174	69	32	3	2	27	4	50	628	628	P10
P86	COPENHAGEN																						15		6	26	6	10	4	6	26	6	10			4	3	95	95	P86
P85	FRANCE																						47	3	9	38	2	23	9	29	43	22	4	2	15	7	9	265	265	P85
P87	LIMA																						17		6	2	2	4	5	14	22	4	1	1	3			77	77	P87
000	OUT OF SECTION	1,930	641	331	138	33	124	62	3,254		23	4	14	935	466	136	162	80	1,820	1,183	24	1,207	688	48	194	264	62	134	270	629	978	253	212	14	163	55	292	4,256	10,537	000
	TOTALS	12,929	3,860	4,782	1,383	220	742	504	24,420		49	16	51	2,682	3,170	945	1,288	257	8,458	6,079	137	6,216	10,715	626	3,217	2,832	999	1,938	3,749	9,449	7,238	2,221	2,300	243	2,230	417	3,078	51,252	90,546	
	STUDENTS								2,789										200	104		104	428	20	66	48	28	95	159	511	501	104	325	25	61	18	1,170	3,557	9,601	
	TOTAL MEMBERSHIP								27,209										8,658	6,183	137	6,320	11,143	646	3,283	2,880	1,025	2,033	3,908	9,960	7,739	2,325	2,625	268	2,291	435	4,248	54,809	100,147	

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	Extr Met EM	Mat Dev MD	Mat Fab MF	Basic Sci BS	Un-class	Total	Division MNOPQ	Econ. K	Total	Drilling N	Educ. & Prof. O	Econ. & Eval P	Well Logging R	Gas Tech. S	Geology & Geol. Eng. T	Manage-ment U	Prod. Oper. V	Reser-voir Eng. W	Fl. Mech. & Oil Rec. Proc. X	Off-shore Ops. Y	Emerg. & Persp. Tech. E	Well Comp. C	Press Trans. Test L	Un-class	Total		
P63	ABERDEEN PETROLEUM	7	1	1					9														286	16	19	72	2	21	32	147	135	29	131	6	63	23	110	1,092	1,101	P63
M50	ADIRONDACK	26	15	1	19				61		1		1	6	20	4			38	4		4									1						1	104	M50
M35	ALABAMA	107	34	207	11	4	2	8	373				1	23	19	10	11	1	70				12	1	4	2	4	2	5	10	6	2		1	2		9	60	503	M35
M 1	ALASKA	64	7	5		2	3		81														3			4	1		2	4	2	2	1			1	5	25	106	M 1
P11	ALASKA PETROLEUM																						111	4	23	39	14	13	41	184	106	12	33	3	28	5	11	627	627	P11
P50	AMARILLO PETROLEUM													8				1	9				46	2	24	6	8	26	20	45	29	1	1		2		13	223	232	P50
P22	ANADARKO BASIN			1	2		1	1	5														26		4	11	3	8	8	31	3	1	1		10		3	109	114	P22
P38	APPALACHIAN PETROLEUM																			4		4	49	3	15	20	12	17	18	38	26	2	1		14	1	31	247	251	P38
P72	ARGENTINE PETROLEUM	14	9		5			1	29														24	1	13	8	7	4	16	43	54	12	3	1	6		5	197	226	P72
M58	ARKANSAS	25	8	8	5		1	1	48					6	3	1	2		12				6	2	3	3	1	2	3	6	5	1	2		4		2	40	100	M58
P81	AUSTRALIAN													1			1		2				70	4	25	25	6	23	28	57	105	8	21	1	15	1	8	397	397	P81
P35	BALCONES																						103	12	58	25	7	40	36	105	58	23	8	4	11	4	108	602	604	P35
P44	BARTLESVILLE																						8	1	24	8	5	7	23	27	41	49	3	6	4	1	9	216	216	P44
P45	BIG HORN BASIN																						27		4	3	3	2	6	70	17	6	2		4	1	7	152	152	P45
P19	BILLINGS PETROLEUM													1					1				45	1	4	9	3	6	13	37	19	2	3		7	2	18	169	170	P19
M 3	BLACK HILLS	77	14	4	6	3	1	1	106					4	4	2	4	1	15				2							1							3	124	M 3
M143	BOISE	92	16	31	5	3	5	3	155					2	2				4																			159	M143
P60	BOLIVIAN PETROLEUM	22	6		1				29														7		2	6	5	2	7	4	4				2		5	44	73	P60
T-1	BOSTON	72	19	15	6	2	7	3	124			1	2	40	141	43	57	8	292				7	2	8	3	2	4	1	7	8	5	5	2	2		2	58	474	T-1
P32	CALIFORNIA COASTAL																						93	6	25	33	6	16	38	121	76	10	71	5	20	5	18	543	543	P32
P31	CARACAS PETROLEUM	8	2		3	1	1		15														7	1	8	10	2	2	12	10	46	17	2	2	4	1	5	129	144	P31
M 5	CARLSBAD POTASH	44	15	2	12				73					1	1				2																			75	M 5
M92	CAROLINAS	126	43	22	43	2	5	6	247					35	45	32	18	2	132				1	1	2	1	1	3	2	1	2	1			1	1	2	19	398	M92
M 6	CENTRAL APPALACHIAN	204	38	814	21	7	15	19	1,118					6	25	15	11	1	58	20	1	21																1,197	M 6
M146	CENTRAL ARIZONA	10	5		2			1	18								1		1																			19	M146
T-2	CENTRAL INDIANA	5	2	2	1		1	1	12					5	23	10	5	2	45	16		16															73	T-2
M60	CENTRAL NEW MEXICO	242	31	71	15	2	6	7	374					12	23	4	16	3	58				13		5	1	3	3	3	7	11	5	1	1	2	1	3	59	491	M60
I-1	CHICAGO	99	59	102	36		9	6	311							1			1	783	13	796																1,108	I-1
T-3	CHICAGO METALLURGICAL										5			57	173	46	67	8	356																			356	T-3
P48	CHICAGO PETROLEUM																						11	3	20	1	11	3	16	16	11	17	2	2	4		7	124	124	P48
T-4	CLEVELAND										1		2	29	111	24	29	3	194				2							1						1	4	198	T-4
I-3	CLEVELAND IRON & STEEL																			358	7	365																365	I-3
P41	COASTAL BEND																						37	2	2	4	4	3	8	27	3	4	1		10	2	7	114	114	P41
M147	COCHISE	39	16	1	4	2		4	66					6					6																			72	M147
M163	COEUR D'ALENE	136	11	3	2	1	9	5	167					3	2	2		1	8				1								1						20	177	M163
P55	COLOMBIAN	17	2	7	1			1	29														23	1	2	1	1	2	5	11	14				2	1	3	66	95	P55
M 9	COLORADO	1,289	262	244	76	12	66	51	2,000					6	3	1	2	1	13																			2,013	M 9
M57	COLORADO PLATEAU	281	28	95	8	2	6	8	428					5	1				6																			434	M57
M10	COLUMBIA	164	14	8	7		4	1	198					15	7	6	6		34				1												1		2	4	236	M10
T-5	CONNECTICUT	21	12	1	2				36		3			41	105	29	45	7	230				10	1	1	5		2	3	4	4	5		1			36	302	T-5
P16	DALLAS													7	9	2	5	2	25				324	21	324	118	31	108	194	294	402	138	71	20	75	10	99	2,221	2,252	P16
P 6	DELTA	28	10	2	5		3	1	49					25	8	3	5	1	42				504	18	86	106	20	58	122	363	285	37	158	6	92	8	105	1,968	2,059	P 6
T-10	DENVER										2	1		67	38	10	10	5	133																			133	T-10
P18	DENVER PETROLEUM																						564	29	251	132	64	143	232	454	415	107	23	14	114	21	134	2,697	2,697	P18
T-6	DETROIT	43	24	15	19			2	103		1		2	33	185	58	58	4	341				3		1	1		2	1	2	4					1	9	453	T-6
I-5	DETROIT IRON & STEEL	1							1											254	3	257																258	I-5
P46	EAST KENTUCKY																						30	1	3	4	3	11	5	12	2	2	1		2		2	78	78	P46
M95	EAST TENNESSEE	121	24	66	15	3	6	4	239					32	33	5	35	3	108				5	1	1	1		1	1	2	4	1					3	19	366	M95
P 3	EAST TEXAS													1	1				2				97	11	30	35	17	27	55	227	54	16	8		75	3	44	799	801	P 3
I-7	EASTERN IRON & STEEL	9	3	8	3	1		1	25								2		2	813	23	836									1						1	3	866	I-7
M121	EASTERN NEVADA	40	3			1		2	46											2		2																48	M121
P68	EGYPTIAN	1	1					1	3														40	4	3	15	6	8	13	44	18	8	25		1		39	224	227	P68
M15	EL PASO	55	12	1	6	2	3		79					27	14	4	3	3	51				7		4	5	3	3	4	2	9	1			2		3	43	173	M15
P28	EVANGELINE	14		4	5		1		24						1		1		2				598	18	46	91	19	39	83	313	170	24	147	3	84	9	90	1,734	1,760	P28
M161	EVANSVILLE	29	8	138	4	2		3	184					13	6	4	2		25																			209	M161
M45	FLORIDA	283	163	52	151	6	6	10	671					20	53	6	25	2	106				8	2	13	1		5	17	10	1	6	3			6	72	849	M45
P13	FORT WORTH														1	1		1	3				92	7	48	56	7	22	40	84	31	14	12	6	48	1	26	494	497	P13
P33	FOUR CORNERS	3		4					7					1					1				60	2	4	8		8	4	46	9	4		1	11	1	6	164	172	P33
M110	GEORGIA	86	50	17	92	1	1	6	253					13	12	6	10	2	43				2					1	4	4	1	4					3	15	311	M110
I-9	GLOBETROTTERS																			675	21	696						1		1	1						3	699	I-9
P53	GOLDEN GATE PETROLEUM																						65	7	53	43	8	33	55	65	121	37	28	9	3	16	58	601	601	P53
M152	GRAND CANYON	76	20	3	3		1	3	106					2					2							1					1							109	M152
P29	GREAT BEND	2							2														18		3	7		4	5	32	12	1	1		3		3	89	91	P29
P 2	GULF COAST														1				1				1,946	83	615	441	163	270	722	1,241	1,096	357	428	49	339	67	415	8,232	8,233	P 2
P23	HOBBS PETROLEUM	2							2														53	2	9	15	5	4	16	109	26	4	1	1	18	1	8	272	274	P23
T-7	HUDSON-MOHAWK	20	6	4	9		2		41					2	73	15	42	6	138	13		13	1		2	1	1	1		1	2						1	12	204	T-7
P24	ILLINOIS BASIN PETROLEUM	48	22		1			4	75														69	7	15	17	10	32	20	85	45	22	7		14		29	372	372	P24
M114	INTERMOUNTAIN																																					75	M114
P83	IVORY COAST	12	9	1			1		23					66	48	5	27	1	147				7	1		1	1	1	4	1	6	2			1			28	28	P83
P66	JAPAN																						19	1	6	8	9	7	8	26	62	23	14		4	1	2	190	360	P66
P73	KALIMANTAN																						57	6	17	37	9	11	41	57	57	10	16		9	4	11	342	342	P73
M18	LEHIGH VALLEY	38	38	23	5	1	3	1	109					27	40	21	22	6	116				3			1		1		3	1	5					7	24	249	M18
M51	LIMA, PERU	112	37	6	8	1	8	2	173					7					7				2															3	183	M51
P58	LONDON PETROLEUM																						226	15	79	76	21	52	124	176	274	65	180	8	33	20	72	1,423	1,423	P58
P26	LOS ANGELES BASIN																						254	22	117	43	13	49	131	305	149	111	70	15	27	5	88	1,399	1,399	P26
P14	LOU-ARK	6		8	1				15							1			1				134	11	24	32	5	16	34	93	44	12	7		30	5	50	497	513	P14
P76	MALAYSIAN																						28		18	7	11	7	13	28	51	2	29	1	4	1	11	211	211	P76
M148	MARICOPA	191	62	10	6	3	9	5	286					9	21	2	9	1	42	9		9	2		1			2	2	2	1						1	9	346	M148
M47	MEXICO	74	17	2	5	2	10	5	115		1		1	18	8	4	4	1	36				10	2	4	5		2	8	5	14	7			2	2	2	65	216	M47
P59	MICHIGAN														1				1				35	2	16	14	9	24	14	40	25	8	1		13		7	208	209	P59
P 1	MID-CONTINENT																						257	24	149	55	33	69	118	277	196	114	19	6	88	18	90	1,513	1,513	P 1
M124	MIDWEST COAL	42	7	137	4	4	3		197						2	1	2		5																			202	M124
P51	MIDWEST GAS STORAGE	1							1					1					1	8		8	20	4	3	5	23	8	13	12	15	1			2		8	114	124	P51
M20	MINNESOTA	298	143	14	8	7	8	15	493				1	15	25	7	9	2	59				3		1	1	1	1	2	1	1	6			2			15	567	M20
P17	MISSISSIPPI	17		4			1		22					1		1	1		3				86	2	20	24	1	9	24	62	29	10	4	1	14		42	329	354	P17
M21	MONTANA	185	35	20	13	2	9	3	267					27	5	5	3		40																			307	M21
M149	MORENCI	77	15		1	3	6	6	108					17	1		1		19																			127	M149
P56	NATIONAL CAPITAL																						17	2	67		15	13	30	22	15	12	10	2		1	20	226	226	P56
P40	NETHERLANDS	17	11		1		3	1	33					1	1		1		3				74	3	15	32	11	9	31	55	74	24	51		7	2	19	407	443	P40
T14	NEW JERSEY											2	1	82	130	38	32	13	298																			298	T14

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

CLASSIFICATION OF AIME MEMBERS

THREE-YEAR TALLY - 1982, 1983, 1984

				1984 Breakdown			
	1982	1983	1984	SME	TMS	ISS	SPE
HONORARY MEMBERS	49	50	56	18	11	5	22
MEMBERS	44,980	46,972	48,492	14,101	5,663	4,301	24,427
ASSOCIATE MEMBERS	15,229	15,697	16,131	4,588	797	1,405	9,341
JUNIORS	20,490	23,537	23,479	5,419	1,379	461	16,220
ASSOCIATE JUNIORS	1,639	1,704	2,388	294	808	44	1,242
TOTAL	82,387	87,960	90,546	24,420	8,658	6,216	51,252
STUDENTS	10,496	10,485	9,601	2,789	3,151	104	3,557
GRAND TOTAL	92,883	98,445	100,147	27,209	11,809	6,320	54,809

1984 NET MEMBERSHIP GAINS

SME-AIME	(997)	-3.5%
TMS-AIME	672	+6 %
ISS-AIME	187	+3 %
SPE-AIME	1,840	+3.5%
AIME	1,702	+1.7%

APPROXIMATE MEMBERSHIP RATIO BY SOCIETY FOR LAST 20 YEARS

DECEMBER	SME-AIME	TMS-AIME	ISS-AIME	SPE-AIME
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
1984	27.2	11.8	6.3	54.7

American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.

REPORT ON THE

113TH AIME ANUAL MEETING

The 113th AIME Annual Meeting was held in Los Angeles, California, February 26 - March 1, 1984. AIME Headquarters and the Woman's Auxiliary to AIME (WAAIME) were located at the Los Angeles Hilton; the Society of Mining Engineers of AIME and the Society of Petroleum Engineers of AIME were headquartered at the Bonaventure; The Metallurgical Society of AIME and the Iron and Steel Society of AIME had their headquarters at the Biltmore. Technical sessions were conducted at the Bonaventure, Biltmore and Sheraton Grande. The Southern California Metallurgical Section and Southern California Mining Section co-hosted the meeting, with Frank T. Wimmer and Douglas F. Crawford serving as co-General Chairmen.

REGISTRATION DATA

	ESTIMATED	ACTUAL
AIME MEMBERS	2,885	2,627
Non-Members	515	596
Non-Member Authors	300	327
ICAM		125
Student Members	325	340
Student Non-Members	40	69
	4,065	4,084
WAAIME	300	366
TOTAL REGISTRATION	4,365	4,450

PERCENTAGE OF MEMBER ATTENDANCE

Society of Mining Engineers of AIME.....52%
The Metallurgical Society of AIME.....45%
Iron and Steel Society of AIME.....2%
Society of Petroleum Engineers of AIME.....1%

REGISTRATION REVENUE AND EXPENSE

	BUDGETED	ACTUAL
REGISTRATION REVENUE	$377,820.00	$412,435.00
Total Expenses Charged to Registration Revenue	350,250.00	367,674.00
REVENUE OVER EXPENSE	$ 27,570.00	$ 44,761.00

DISTRIBUTION OF REVENUE SURPLUS

Society of Mining Engineers of AIME	$ 879.00
The Metallurgical Society of AIME	40,075.00
Iron and Steel Society of AIME	953.00
Society of Petroleum Engineers of AIME	(437.00)
AIME Headquarters	3,291.00
TOTAL DISTRIBUTION	$ 44,761.00

SOCIETY OF MINING ENGINEERS OF AIME

REPORT

OF THE

EXECUTIVE DIRECTOR

1984 was the third, and most difficult, of three consecutive difficult years. The economic problems of the minerals industry started to affect the operation of SME-AIME in mid-1982. As these problems of the industry have continued and worsened, their adverse effects on the Society have grown stronger. Taken as a group, these three years have provided the following results.

FINANCIAL/MEMBERSHIP PERFORMANCE 1982-1984

Year	Financial Surplus (Deficit)	Corporate Membership Gain (Loss)		Student Membership Gain (Loss)	
1982	$236,147	415	+1.7%	(85)	- 2.4%
1983	147,230	(404)	-1.6%	(124)	- 3.6%
1984	1,156	(431)	-1.7%	(566)	-16.9%
Total	$384,533	(420)	-1.7%	(775)	-21.7%

Indications are that during 1985 and 1986 the trend toward worsening financial and membership conditions will continue. Efforts started in 1984 to increase MINING ENGINEERING's share of the advertising market may ease the financial problems of 1986 somewhat; but, realistically, 1985 is not expected to benefit significantly. Continued membership losses can be expected until job opportunities and related school enrollments improve. As 1984 ended, staff was developing options for cost reductions including staff and program cutbacks.

In FY 1984, revenue fell 14.2 percent ($460,172) short of budget and expenses were 12.5 percent below ($394,728). These combined to provide a surplus of $1,156, which was $65,444 less than the $66,600 surplus budgeted. Part of the surplus reduction resulted from unbudgeted staff increases in Marketing and Education as a result of recommendations from the Long-Range Planning Commission.

The Offshore Technology Conference (OTC) had no exhibit and distributed no current surplus ($33,709 was received from prior surplus that had been withheld as a legal contingency reserve pending resolution of the antitrust suit that was successfully concluded in 1983). The Annual Meeting in Los Angeles, which was expected to lose $5,700, had a surplus of $3,716 from increased attendance and reduced cost. The Fall Meeting in Denver, which was expected to have a surplus of $67,400, had a surplus of $45,869--down $21,531 from lower attendance and fewer exhibit sales. Overall Meetings, without Short Courses, provided 17.5 percent ($485,418) of the revenue and 14.8 percent ($409,086) of the expense and contributed $76,332 to surplus--these compare to 15.3 percent ($430,873) of the revenue; 13.2 percent ($353,612) of the expense; and, $77,261 to surplus for 1983.

Publications, without preprints, provided more than 42 percent of the revenue and 64 percent of the expense for 1984--compared to 45 percent and 66 percent in 1983. MINING ENGINEERING advertising was about 40 percent of publications revenue for both 1984 and 1983. Overall, the Publications Program lost $622,277 in 1984--$119,847 more than the $502,430 lost in 1983. MINING ENGINEERING lost $588,871; however, when a portion of dues is allocated as subscription income (as required by the IRS to determine possible income tax liability) this loss is reduced to $247,807. This compares to a loss of $513,684 reduced to $166,915 in 1983. The MINERALS AND METALLURGICAL PROCESSING JOURNAL lost $16,941 in 1984 and $4,060 in 1983 (a two-year loss of $21,001). These compare to business plan losses of $13,700 and $12,400 (two-year loss of $26,100). According to the plan, the Journal is expected to lose $2,240 in 1985 and have a surplus of $8,700 in 1986.

Book sales were disappointing; inventory levels are a concern; and, the number and cost of approved projects may be beyond the Society's reasonable capacity. The Book Publishing Committee and the Board will be asked to review all approved projects. The staff is analyzing current sales, current inventory and projected sales, and projected inventory to help predict the impact of these approved projects. Such analysis in early 1984 indicated that at 1983 sales level and assuming new project sales as estimated in the approved documents, inventory concerns would be eliminated in 1989 by a $50,000 annual contribution to reserve. However only 12,746 books were sold in 1984--down 3,377 from the 16,123 books sold in 1983 (which was down from 20,420 sold in 1982). It appears that the primary buyer's of the Society's books are its members and that in bad economic times books tend to be an optional buy. Book sales will probably continue to suffer as long as the industry and enrollments suffer. Twelve new titles were published in 1984 and 28 approved projects were in various stages of development at year-end. Books provided 19.4 percent ($538,716) of the revenue; 20.0 percent ($555,181) of the expense (including a $50,000 contribution to reserve for slow moving inventory); and had a deficit of $16,465. These compare to 22.6 percent ($636,526) of the revenue; 23.2 percent ($621,212) of the expense (also with a $50,000 reserve contribution); and a surplus of $15,314 in 1983. The inventory value went down $69,875 ($19,875 more than the reserve contributions) and work in process went up $17,961. Book inventory (not adjusted for reserve) has grown by more than one million dollars since 1979 and from a third of the Society's net worth to more than 60%.

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. Preprints produced a surplus of $7,644 in 1984 compared to surpluses of $13,882 in 1983, $176 in 1982, and $5,930 in 1980. Sales in 1984 were down $15,800 (from $57,645 to $41,845) from 1983 at least in part due to the trend toward increased publication of symposia proceedings; which reduces the number of preprints available for sale. Concern exists that this trend, if continued, may cause a loss on preprints from reduced volume and add to book inventory problems.

One new Section and two new Student Chapters were established. The Pittsburgh Section was transferred to SME-AIME for administration. SME-AIME now has 73 local sections of which three are in other countries (Lima, Peru; Mexico; and,

the Philippines). There are 69 Student Chapters of which four are in other countries (Australia, Philippines, Venezuela, and Saudi Arabia). SME-AIME also has Student Members in one Student Chapter administered by TMS-AIME.

Personnel turnover was acceptable and staff positions were increased by two (from 30 full time and 8 part time to 32 full time and 8 part time) to accommodate the increase in Marketing and Education authorized as a result of the recommendations of the Long-Range Planning Commission.

SEPARATE INCORPORATION OF AIME SOCIETIES

For business and liability reasons, and after years of study, the AIME Bylaws were amended, permitting separate incorporation of the Constituent Societies. All four Societies decided to pursue this option and each prepared and presented Articles of Incorporation and Bylaws to its membership for approval. New AIME Bylaws, which establish the Societies as Member Societies of AIME, were also presented to the membership for approval. All of these proposed documents were approved and the Societies applied for incorporation in their home states and for Federal Income Tax Exemption under Section 501(c)(3) of the Internal Revenue Code. This is the same tax classification previously assigned and will permit the transfer of assets from AIME to the Societies—the plan is to transfer those assets presently under custodial assignment to a Society to that same Society with some additional transfers as circumstances indicate. At year-end, the Society of Mining Engineers (SME, Inc.) was established as a Colorado Corporation and had been granted a 501(c)(3) tax exemption. It is anticipated that governance, operations, and assets will be transferred from SME-AIME to SME Inc. in mid-1985.

LONG-RANGE PLANNING COMMISSION

During 1984 the Long-Range Planning Commission, under the chairmanship of John F. Havard, completed its work. Recommendations of the various Committees of the Commission were reviewed and acted upon by the SME-AIME Board of Directors during the February 26, 1984, meeting, by the Executive Committee at its April meeting, and subsequently by mail action of the Board of Directors, following modifications of some recommendations on the advice of the Finance Committee. Approved Committee recommendations and followup actions to date follow.

Scope Committee. In regard to the long-range viewpoint for the Society, the Scope Committee, Bruce A. Kennedy, Chairman, recommended that the Society become international in its activities and membership, continuing cooperative efforts with international counterpart organizations, but making stronger efforts to expand membership and services. Working Party #72 has been set up to investigate ways to implement this recommendation. Internationalization of the Society under foreseeable conditions of growth will require increased staff in the areas of marketing, education, and administrative support.

The Scope Committee established a description of the Society: "A technical and professional organization which consists of individual members, viz., those mining engineers, metallurgists, geologists, earth scientists, economists, managers, educators, and other professionals concerned with all facets of the exploration for, production, distribution, and utilization of mineral

commodities. Those minerals include all metals; industrial minerals, including construction materials and fertilizers; coal, oil shale, tar sands, and other mined fuels. Among the earth's mineral resources, only well-pumped oil and gas lie outside the Society's specific purpose."

The purpose of the Society is, "To further the professional development and well-being of its members by publishing and distributing technical writings, news, and information; by sponsoring meetings of members; by providing forums for discussions and for continuing education; and by fostering communication on the subjects within its purview." In the Articles of Incorporation for SME, Inc., this statement was amplified to reflect the benefits to the public of the Society's purpose.

The Scope Committee established objectives for the future: (1) As the Society grows and evolves, it should continue to emphasize excellence in all of its endeavors. (2) The Society should continue to seek growth in the number of its members as needed to sustain vitality and economic viability. (3) Membership growth should be sought in all available parts of the world so that a truly international membership can draw extra benefits from the skills and knowledge of each other. (4) Goods and services should change and grow to respond to need and changing circumstances. The Board considered objective two to be a charge to the Membership Committee, objectives two and three part of the charge to Working Party #72, and objective four a charge in the future to the appropriate SME Committees.

Management and Organization. Recommendations from the Management and Organization Committee, Alfred Weiss, Chairman, included eliminating the Publications and Education Boards, replacing the latter with a Council of Education. The last meeting of the Publications Board took place during the 1984 Fall Meeting. In the future, commencing with the 1985 Annual Meeting, the publications committees (Book Publishing and MINING ENGINEERING) will report directly to the Board. The Council of Education will meet during the 1985 Annual Meeting with the responsibility for coordinating and directing the activities of the Education Planning, Educational Issues, Continuing Education, and the Student Member Affairs Committees. Although the original recommendation had been to eliminate the Continuing Education Committee and establish a small, presidentially appointed, Short Course Committee to assist the Meetings Manager in identifying need for, developing, and presenting short courses, a compromise was reached whereby the Continuing Education Committee would continue, focusing on other means of education such as correspondence courses, rather than short courses at meetings. The Short Course Committee, consisting of one representative from each Division and the Minerals Resource Management Committee has been appointed. Part of its charge is to develop short courses on a repetitive, geographically dispersed basis so as to spread developmental costs over more than one offering and to reach the membership.

The Management and Organization Committee recommended establishing a staff Department of Education to be the national focal point for US academic education matters and the coordination point for international academic matters. The Board of Directors in February approved this recommendation, the Finance Committee recommended delaying implementation, but the Executive Committee in April, and subsequently, the Board, voted to support implementation in 1984.

An Education Coordinator, with sound educational qualifications and also skilled as an administrative/executive assistant, was hired in May.

A recommendation to change the name of the Society to more accurately reflect its constituency was referred to the membership via a straw vote on three names: Society of Mining Engineers; Society of Mining, Metallurgical and Geological Engineers; and Society for Mining, Metallurgy, and Exploration, with the option of a write-in choice. The results of this straw vote were inconclusive, with the present name apparently favored. A new Working Party, #73, will reexamine the question.

Two further recommendations from the Management and Organization Committee dealt with election procedures. (1) Eliminate the tradition of Division rotation for the position of AIME President so that the best candidate might be nominated and to avoid the 16-year cycle between opportunities by Division. This recommendation is being implemented, with the Board of Directors serving as an advisory group to the Nominating Committee (1985). (2) The tradition of Division rotation for Society President be discontinued and that the Nominating Committee be instructed to select the best candidate with the provision that no two successive Presidents be from the same Division. This is being implemented by the Nominating Committee (1985) with no individual from the Mineral Processing Division being considered, since the 1986/87 President represents MPD. Five immediate Past Presidents, with representation from each Division, are acting as an advisory group to the Nominating Committee.

Membership Committee. Two recommendations from the Membership Committee, Burt C. Mariacher, Chairman, were considered as part of the Scope Committee report, without action. (1) SME-AIME should maintain its position as a society of engineers and scientists, and its stated objectives should reflect this. (2) SME-AIME should retain its present criteria for full Member status in keeping with a professional engineering and scientific organization, and continue to accept membership in other grades in accordance with present policy and practice. A third recommendation to extend the scope of the Membership Committee was considered to be an operational rather than policy matter.

Communications Committee. The Committee, Thomas J. O'Neil, Chairman, recommended that the Board request each Division to submit a plan for (a) describing the requirements for each appointive position; (b) bring each new appointee up-to-date on business relating to the position; and (c) evaluating the performance of appointees, including the replacement of nonperformers. Since this was considered to be an operational recommendation, it was referred to the Divisions for implementation.

Educational Activities Committee. The Committee, Lee W. Saperstein, Chairman, had the same recommendation for a staff educational department, as did the Management and Organization Committee. A second recommendation was to form an Executive Committee on Education Quality from the Society-appointed representatives to the Accreditation Board for Engineering and Technology (ABET), the Engineering Accreditation Commission (EAC), and the Technology Accreditation Commission (TAC), plus the chairman of the Council of Education and two other persons appointed by the Society Board. The recommendation was approved with the understanding that this committee would be an Advisory Committee, rather than an Executive Committee.

Meetings Committee. Under the Chairmanship of Nelson Severinghaus, Jr., the Committee recommended that one major meeting be established, the SME-AIME Annual Meeting and Technological Information Exchange Exhibit, to be held each year in those locations (such as Colorado, Nevada, Arizona, New Mexico, and Utah) that are less costly and proven successful meeting sites. Implementation of this recommendation is reported in "Meetings."

The Committee recommended establishing the concept of and procedures for regional, specialty, and topical meetings, conferences, and seminars on a singular or repetitive basis. In April the Executive Committee recommended that the Fall Meeting (without exhibit) be retained and restructured to more nearly meet its original design of "taking SME to the membership" by meeting in geographical areas where annual meetings are not usually held. The major changes are to be implemented in 1987.

The Committee supported the establishment of an AIME annual meeting to be held in late May of each year. This meeting is to be supported by all AIME Societies and would consist of broad management topics and interdisciplinary technical programming. In February the recommendation was amended to reflect a feasibility study recommended by the Society of Petroleum Engineers (SPE). In July the AIME Executive Committee approved the Stand-Alone AIME Annual Meeting and referred implementation measures for 1986 to the Executive Directors. The Executive Directors recommended to the AIME Board of Directors in November, and the Board concurred, that (1) implementation of the concept be deferred to 1987, or later, depending on the success achieved in developing a format that would provide some reasonable assurance of a successful meeting; and (2) schedule the 1986 AIME Annual Meeting in conjunction with the joint Annual Meetings of SME and TMS.

The Meetings Committee recommendation on moving short course responsibility to the Meetings Department had already been approved as a Management and Organization Committee recommendation.

Publications Committee. A recommendation from the Committee, A.F. Alsobrook, Chairman, to abolish the Publications Board paralleled the Management and Organization Committee recommendation. The Publications Committee further recommended establishment of a Publications Advisory Committee consisting of presidentially appointed members, who have previously been actively involved in the Society's publishing activities and who will serve extended terms on the Committee. This Committee will meet during the 1985 Annual Meeting.

The Committee recommended adding a Manager of Publications Marketing to the staff. The Finance Committee recommended immediate implementation of the position and its necessary support. A Manager of Marketing has been hired.

In regard to MINING ENGINEERING, the Committee recommended expanding the Technical Editors Advisory Group by (1) retaining two additional editors in the US with expertise not now covered by the existing Technical Editors, and (2) recruiting Technical Editors in selected locations overseas. The Finance Committee recommended that implementation be delayed until revenue expectations are more favorable and MINING ENGINEERING's drain on resources is decreased. The Executive Committee in April recommended (subsequent Board

approval) that a fifth US position be added to the four-member Technical Editors Advisory Group to provide technical coverage from each of the four Divisions and the Minerals Resource Management Committee. Implementation may take place in 1985, if economics permit.

Professional Status Committee. Consistent with the industry polling it conducted, the Committee, Martin C. Kuhn, Chairman, did not believe that SME-AIME should be a militant advocate of registration, but the membership should be kept informed of developments in this area. Implementation of this policy is a continuing charge to the Professional Registration Committee. An article on registration appeared in the February issue of MINING ENGINEERING.

The Committee recommended that the Society continue to offer a PE Review short course with its meetings as a regular feature. SME-AIME Professional Registration Committee support and advice should be offered to any school wishing assistance in developing a review course. Parts 1 and 2 of The Pennsylvania State University PE Review Course will continue to be given at meetings in the foreseeable future.

A recommendation that the Education Board consider a requirement that students at ABET-accredited schools be required to pass the EIT examination as a prerequisite for graduation was considered an operational rather than a policy recommendation.

Professionalism Committee. The Committee, Ted D. Haley, Chairman, recommended that SME-AIME should seek and publish articles on professional conduct from time to time in MINING ENGINEERING. A group is needed for implementation.

External Relations Committee. Two recommendations by the Committee, Dean W. Lynch, Chairman, were not accepted: (1) Appoint an External Affairs Advisory Committee to the Board of Directors to handle long-range planning and to make policy recommendations including issue identification. (2) Change the name of the Society to better reflect the breadth of coverage. The latter recommendation had already been considered.

Awards Committee. The Committee, M.C. Fuerstenau, Chairman, recommended that two awards be established: (1) one honoring those persons who have contributed substantially to productivity, and (2) one honoring those persons who have made important contributions to the exploration for metals, nonmetallics, and fuels or for important discoveries of these ores and fuels. A mechanism needs to be established for the productivity award, including funding. The second award was referred to the Mining & Exploration Division.

Several additional recommendations dealing with specific Division awards were referred to the respective Divisions for implementation.

The Committee recommended that "All SME-AIME awards should be made only when circumstances warrant; not more than one of each of these individual awards is to be made in any one year." This recommendation was referred to the individual award committees.

Recommendations regarding obsolescence of awards were considered to be operational or study ones and were referred to the respective units. A recommen-

dation that all awards be publicized in MINING ENGINEERING annually, spelling out criteria and nomination procedures, was referred to staff and the awards committees for implementation.

It was recommended that the "Executive Committee of SME-AIME and of the Divisions should study ways in which the membership can have more input into all awards." Referral was to the appropriate units. A recommendation on the manner and time of award presentations was considered to be an operational one and was referred to the appropriate units.

Finance Committee. In addition to advising upon individual Committee recommendations requiring financing, the Committee, Donald O. Rausch, Chairman, requested that staff develop information on how to establish a foundation as a possible vehicle to receive grants, bequests, and other donations that could provide long-term financial support for some service programs. The Executive Committee in April endorsed the study.

Several recommendations by various Committees were not approved. A general recommendation from Management and Organization for Board Advisory Committees to handle ongoing long-range planning for and to recommend policies and practices to the Board of Directors was not accepted. However, a Publications Advisory Committee and an Advisory Committee on Educational Quality were approved. Management and Organization's recommendation that nominees for presidential positions and for SME-AIME Directors be submitted to the membership on a single-candidate ballot with space for write-ins was not accepted.

A Professionalism Committee recommendation, not accepted, was that SME-AIME obtain from the State Boards of Registration the names, addresses, reasons, terms of suspension, and ethical principle violated by mining engineers in the country and that the list be published monthly in MINING ENGINEERING.

A Scope Committee recommendation that the Society should include as potential members all professionals in the world who are involved in the exploration for, and mining and processing of all minerals including mined fuels, was considered to be one requiring further study.

A Management and Organization Committee recommendation regarding the Nominating Committee structure was considered another item needing further study. It was recommended that the five most recent SME-AIME Past Presidents be the Nominating Committee for SME-AIME President and that the Board of Directors be the Nominating Committee every four years for selecting an AIME-President-Elect-Designate.

A Communications Committee recommendation that the Section representatives meeting be strengthened and that more authority be given to sections requires further study.

Study and operational matters will be considered by the appropriate Society entity in due course.

ADMINISTRATIVE SERVICES

Minor changes in the SME-AIME headquarters floor plan made it possible to extend the tenant's lease for another three years beginning September 1985. Additional office space was made possible by moving the word processing equipment to an area adjacent to the reception area. This made available an office for the new Education Coordinator. Continuation of the rental income is welcome.

In March 1984, the SME-AIME Board of Directors approved the proposal to change the rental of the 9400 Xerox Copier Machine to a three-year lease/purchase plan. It is estimated that this conversion will save over $32,000 after the fourth year. This savings includes an up front credit of $7,500 and a guaranteed buy-out of $6,370. The new agreement continues to provide for adequate service, quality, and performance guarantees as with the rental agreement. Another agreement with Xerox allows for the purchase of all paper products sold by Xerox at a $6.50 per carton discount with a minimum 400 carton purchase over 24 months. This agreement supersedes one which allowed a discount on xerography paper only.

The Society's telex system was converted to Western Union's "EasyLink" System in May. This change makes message sending easier and less expensive. The conversion was simply made with the purchase of inexpensive software used on a microcomputer. The connection with Western Union is made via a communication modem attached to the microcomputer. This new system is expected to save over $500 a year in telex expenses.

Lightning never strikes twice in the same place. At the Society's headquarters building, though, it did. In July 1984, a lightning strike knocked out the building's security alarm system. Although not as dramatic as the problem caused by lightning that hit the central air conditioning compressor in 1981, it did cause the staff to take extra security measures.

This past summer, records and supplies, stored at a mini-warehouse some 8 miles from the Society's office, were moved to a new facility in the Ken Caryl Ranch Business Center. This move provides the staff with better access to its working records.

The Ken Caryl Ranch Master Association did not renew the snow removal contract with the Society for 1984 since their maintenance responsibilities have expanded. The Society selected a private contractor for at least the '84-'85 snow season. This service has become a vital maintenance item in the last few years.

In October 1984, the Society purchased an accounts receivable software package. This package is used on a microcomputer for maintenance, aging, and report requirements. This system promises to reduce much of the time-consuming manual accounting and record keeping previously done. The receivables remain current with few collection problems.

Late in 1984, the American Express Card was added to Master Card and Visa Card as credit cards accepted by the Society. The Master Card and Visa Card accep-

tance have proven to be a service to the membership and a valuable tool in generating sales for the purchase of books and meeting registration. Early sales results show that the American Express Card is a welcome addition.

Sales (including books of the Seeley W. Mudd Fund and the Rapid Excavation and Tunneling Conference Fund) for 1984 were 12,746 volumes totaling $407,397. This compares with 16,123 volumes for $489,212 for 1983. The results are decreases of 20.9 percent and 16.7 percent, respectively. Total book inventory under SME-AIME control on November 30, 1984, was 80,380 copies of 88 titles, with a cost of $1,314,287 (after reserving $150,000 for slow moving items). This includes property of the Mudd and RETC Funds, with an inventory of 7,723 copies, bearing a cost of $130,829. Order fulfillment continued from seven locations:

ORDER FULFILLMENT CENTERS

FULFILLMENT CENTER	LOCATION
BookCrafters, Inc.	Detroit, Michigan
Edwards Brothers, Inc.	Ann Arbor, Michigan
Kingsport Press	Kingsport, Tennessee
Guinn Printing Co.	Hoboken, New Jersey
Port City Press	Baltimore, Maryland
Fred B. Rothman	Ken-Caryl Ranch, Colorado
Litho Graphics Center Inc.	Los Gatos, California

Physical inventories, as usual, were taken at all locations as of September 30, 1984.

SME-AIME's lock box functions continue with 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 flow. The Society maintained a new all-time high in average invested. Higher rates were also enjoyed. A comparison of the last three years follows:

INVESTMENTS 1982-1984

	1982	1983	1984
Average amount invested	$784,194	$ 870,672	$1,004,166
Average earning rate	13.6%	9.97%	10.70%
Total earnings	115,960	95,077	119,791
Allocated to various funds	34,781	31,374	40,698
Total investments at year-end	982,973	1,259,725	1,209,339

FINANCES

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

1957	1958	1959	1960	1961	1962	1963
$11.4	$.7	$(.8)	$4.5	$1.0	$(1.7)	$(14.8)
1964	**1965**	**1966**	**1967**	**1968**	**1969**	**1970**
$20.1	$1.2	$52.6	$30.1	-0-	$(10.5)	$(17.6)
1971	**1972**	**1973**	**1974**	**1975**	**1976**	**1977**
$(58.9)	$(32.5)	$10.7	$16.6	$120.4	$137.9	$119.7
1978	**1979**	**1980**	**1981**	**1982**	**1983**	**1984**
$(19.4)*	$239.8	$106.0	$530.1	$236.1	$147.2	$ 1.2

*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):

1957	1958	1959	1960	1961	1962	1963
$100.9	$101.6	$100.8	$105.3	$106.3	$104.6	$89.8
1964	**1965**	**1966**	**1967**	**1968**	**1969**	**1970**
$109.9	$111.1	$163.7	$193.8	$193.8	$183.3	$165.7
1971	**1972**	**1973**	**1974**	**1975**	**1976**	**1977**
$106.8	$74.3	$85.0	$101.6	$222.0	$359.9	$479.6
1978	**1979**	**1980**	**1981**	**1982**	**1983**	**1984**
$629.0	$1,082	$1,204	$1,756	$1,992	$2,139	$2,141

PUBLICATIONS

Declining income due to the recessionary factors plaguing the minerals industry made 1984 an economically constrained year for publications. Advertising revenue was down, as were publication sales. Cost-containing measures were enforced in all areas.

MINING ENGINEERING

For economic reasons, the page size of each issue was carefully controlled. The matte-finish less expensive paper continues to be used for the black and white portions of the magazine. The magazine printer, Cummings Printing Co., continues to work with staff to effect cost savings.

The two regular special issues--Annual Review and Directory--were published in May and July, respectively. For the Annual Review issue, mailings to state mining and geological organizations soliciting information for the exploration review and numerous telephone calls regarding information for other sections resulted in good response. All persons contributing information for the reviews were acknowledged in the issue. Contributing editors in various aspects of minerals technology continue to assist with information gathering: Peter Phillips, Michael N. Greeley, John W. Peters, Lee R. Rice, and Peter V. Avotins. Stanley J. Lefond has been recruiting authors and coordinating the Industrial Minerals review for a number of years.

Other special issues during the year were the Pre-Show report for the SME-AIME Fall Meeting, published in September, and a special issue on gold, published in November. It was possible to include in the latter issue a number of technical papers on precious metals operations to supplement the feature section.

Among the special features published during the year were a three-part series on microcomputers and articles on ore body modeling, one of which was written by Technical Editor James W. Babcock. The Technical Editors—Babcock, Raymond E. Blair, Earl L. Rau, and Paul L. Russell--meet monthly with the ME staff, assisting in planning, article reviews, and generally helping staff stay informed on industry developments.

Several new features were introduced: Equipment and Technology News and the Personal Skills series developed by the SME-AIME MINING ENGINEERING Committee under the direction of L. Alan Weakly. The first of the series addressed economic analysis of mineral and energy investments. Other articles covered writing, interpersonal communications, and decision making. The Engineering Fundamentals coverage continues with articles on aerial rope design, conveyor belt cleaners, and radial tires.

As part of the Long-Range Planning process, work of the Commission was reported to the membership throughout the year, commencing with a Drift by Commission Chairman John F. Havard in February and including articles on each of the Committees and their work.

In FY 1984, 725 9/12 editorial pages of all types (feature articles, regular columns, Society news, etc.) were published. In addition, 41 pages of material for other aspects of the Society's and AIME's operations were published: advance publicity for the Annual and Fall Meetings, AIME Newsletter, SME-AIME's Annual Report in May, AIME's Annual Report in July, pages honoring companies donating $10,000 to the Coal Division Scholarship Endowment Fund, and a special section in September asking for members' votes on the new AIME Bylaws and the SME Articles of Incorporation and Bylaws.

TECHNICAL PAPERS

The Technical Papers Section was published in 10 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 7 pages of abstracts of papers to be published in Vol. 276, the 1984 Transactions volume. Papers published included 43 technical papers, 4 technical notes, and 5 discussions of papers already published. Scheduled for publication in the annual Transactions volume, to be published in spring 1985, are 36 additional papers, all of those accepted within a 12-month period since the last volume was scheduled. In Vol. 274, 1983, published in 1984, there were 54 additional papers, and 257 pages published. The backlog of papers awaiting publication in the Technical Papers Section increased in 1984 due to a greater acceptance rate and number of papers in the review system. Vol. 276, 1984, will also contain the papers published in MINERALS & METALLURGICAL PROCESSING in 1984.

BOOK PUBLISHING

In FY 1984 12 new titles were published and two existing titles reprinted:

- Cameron Volume on Unconventional Mineral Deposits, W.C. Shanks, III, editor, December
- Control '84: Mineral/Metallurgical Processing, J.A. Herbst, editor, February
- Process Engineering of Size Reduction: Ball Milling, by L.G. Austin, R.R. Klimpel, and P.T. Luckie, March
- Bauxite, L. Jacob, Jr., editor, April
- Practical Hydromet '83, Colorado Section, April
- Rock Mechanics in Productivity and Production, C.H. Dowding and M.M. Singh, editors, June
- Stability in Underground Mining II, A.B. Szwilski and C.O. Brawner, editors, August
- Au & Ag Heap and Dump Leaching Practice, J. B. Hiskey, editor, August
- Process Mineralogy III, W. Petruk, editor, September
- Geomechanics Applications in Hardrock Mining, W.G. Pariseau, editor, October
- Applied Mining Geology, A.J. Erickson, Jr., editor, November
- Mine Investment Analysis by D.W. Gentry and T.J. O'Neil, November

Two titles reprinted were "Surface Mining" and "SME Mining Engineering Handbook."

Of the 12 new titles, 9 were SME-AIME meetings related or SME-AIME generated, 1 was from an SME-AIME Local Section activity, and 2 were published for outside activities: 25th Rock Mechanics Symposium and 2nd International Conference on Stability in Underground Mining.

Currently 28 book publishing projects have been approved by the SME-AIME Publications Board as recommended by the SME-AIME Book Publishing Committee for publication into 1986. The Book Publishing Committee has assigned members of the Committee to monitor each project, ensuring that scheduling is met and quality assured. The limited print run policy previously established is being continued in order to reduce inventory buildup and diminish cash flow drain. Under the policy, the first printing of a book is limited; if demand warrants, that title would be reprinted.

During 1984, Publications Board Awards were given to 12 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.

In the economic climate that has existed in 1983 and 1984, moving book inventory, a sizable part of the Society's assets, continues to be a challenge. Brochures listing all the Society's books in print were prepared for the Annual Meeting and updated for the Fall Meeting and for use by mail. Ads on various titles have appeared in MINING ENGINEERING and in MINERALS & METALLURGICAL PROCESSING. Some of these ads have appeared in "International Mining," the new magazine started in January and published in England. Notices about SME books have appeared in "Pit and Quarry" and "Coal Mining" (formerly "Coal Mining and Processing"). The "Underground Mining Methods Handbook" is included in McGraw-Hill's book promotion materials. In addition to displays at SME-AIME meetings, appropriate books were displayed at the AMC Coal Show and Offshore Technology Conference in the spring, at the 18th APCOM (Applications of Computers and Operations Research in the Minerals Industry) in London in late March, and at Tecnomin 84 in Peru in April. During the summer, the book brochure was mailed to about 450 corporate libraries. A flyer announcing a special 20% discount on selected titles was included with the 1985 dues bills mailed in September.

Book sales of all types grossed $407,786 compared with $489,367 in FY 1983. Of this, $41,302 was for books published for various funds (RETC, Mudd Fund, etc.), compared with $90,189 in 1983. Postage and handling fees totaled $67,182 compared to $82,881 in 1983. Cost of sales was $367,612, for a loss of $1,128 (compared to $391,590 and a gain of $7,588 in 1983), 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 $96,254 compared to $135,076 in 1983. The number of books sold was 12,746 compared to 16,123 in 1983.

INFORMATION RETRIEVAL

Use of the information retrieval system through Information on Demand (IOD), a Berkeley, CA, firm, picked up dramatically after publication in December 1983 of an article describing the service. Publication in November 1983 of a bibliography on productivity compiled by IOD also generated considerable

interest with one Canadian firm buying hard copies of every document listed. A bibliography also compiled by IOD on gold was included in the November 1984 issue of MINING ENGINEERING. However, at this writing it is too early to determine what interest that will generate. Because the Society maintains a deposit account with IOD, SME-AIME is able to share a discount with those using the service.

MINERALS & METALLURGICAL PROCESSING

Three issues of MINERALS & METALLURGICAL PROCESSING were published in 1984--May, August, and November, with the index for the year published in the last issue. The original issue, February, had to be cancelled due to slowness in generating content. The content-gathering problem seems to be solved.

By year-end, 366 subscriptions had been sold: 60 at full rate ($60), 45 at full rate less agency discount of 20% ($48), 208 to SME-AIME Members ($45), and 53 to members of other AIME societies ($45). Promotional efforts have included mailings to members of the Mineral Processing Division of SME-AIME and the extractive metallurgists of The Metallurgical Society of AIME; direct mailing to a purchased list of nonmembers; a sample copy mailing to about 140 corporate libraries, universities, and government agencies, again through a purchased list; ads in MINING ENGINEERING; and mailing (with book brochure) to about 450 additional libraries. A notice about the journal was included in the 1985 dues bill mailing. Three ads will be run in the "International Journal of Mineral Processing" for a total cost of $729.

Total revenue for M&MP in FY 1984 was $28,127 and total cost was $45,068, for a deficit of $16,941. However, both revenue and expense do not reflect a full year, since only three issues were published, rather than the four planned originally. That analysis for year one (1984 and startup costs in 1983) and actual outcome is:

	1983		1984	
	Plan	Actual	Plan	Actual
REVENUE:				
Subscriptions	-0-		$ 32,000	$18,531
Reprints	-0-		-0-	396
Page Charges	-0-		12,500	9,200
	-0-		$ 44,500	$28,127
Expense:	$ 12,400	$ 4,060	$ 58,200	$45,068
(Deficit):	$(12,400)	$(4,060)	$(13,700)	($16,941)

Editor of the journal is Burt C. Mariacher and Associate Editors are Paul L. Person (Coal), Haydn H. Murray (IndMD), and P. Somasundaran (MPD). A replacement is being sought for Jonathan S. Jackson (M&E), who resigned his Society positions for personal reasons. An editoral review board of approximately 42 people has been established. These people have made a commitment to review papers in a timely fashion.

MARKETING

Advertising and sales promotion of MINING ENGINEERING this year consisted of a continuation of monthly listings in Standard Rate and Data Service (a service to advertisers and ad agencies), circulation data forms by the Audit Bureau of Circulation (ABC) and the Media Comparability Council (MCC), a Readex Survey of the November issue, and seven in-house produced ads in SRDS promoting special issues throughout the year. Results of the readership survey by Readex won't be available until March 1985.

MINING ENGINEERING ADVERTISING PERFORMANCE ($000's omitted)

	FY 1983		FY 1984		Change	
	Pages	Revenue	Pages	Revenue	Pages	Revenue
Display	215.25	$458.7	150.75	$403.8	-64.50	-$54.9 (12%)
Classified	16.67	23.1	19.00*	32.9*	+ 2.33	+ 9.8 (43%)
Prof. Services	136.00	30.3	154.42	33.3	+18.42	+ 3.0 (10%)
	367.92	$512.1	324.17	$470.0	-43.75	-$42.1 (8%)

*Includes $2.8 Employment Service Revenue and 3.58 pages.

MINING ENGINEERING experienced its third difficult year with an 8.2% decrease in advertising revenue compared with 1983. Domestic mining publications experienced an average loss of 2.8%. In an $8-million market, MINING ENGINEERING's share fell to 5.8% from 7% in 1980.

For these reasons and at the recommendation of the Long-Range Planning Commission, a Marketing Manager was hired in August with a primary assignment of increasing advertising sales.

One of the first steps taken by the Marketing Department to improve the advertising performance of MINING ENGINEERING was to increase its sales force. Previously there were two employee sales representatives covering the U.S., a representative firm in London and a firm in Bad Homburg, West Germany. As of this report there are now in place four firms and one employee representative selling display advertising in the U.S. International representation has increased with firms in Toronto, Montreal, Tokyo, and Johannesburg. Negotiations are underway with firms in Australia, Belgium, and Scandinavia.

A Denver advertising agency, Karsh & Hagen, was commissioned and a schedule in BUSINESS MARKETING, MEDIA INTERNATIONAL, and STANDARD RATE AND DATA SERVICE began in December 1984. This campaign will continue throughout 1985 to increase awareness of MINING ENGINEERING among advertising agencies and advertisers domestically and internationally.

A total redesign of the Media Kit is being undertaken to present MINING ENGINEERING in the best possible light to media buyers and make it a useful selling aid to the sales force. Certain elements will be used in direct mail programs.

The Society's advertising prospects and customer database have been computerized by a local mail house for direct mail programs to communicate the benefits of advertising in MINING ENGINEERING to the hundreds of prospects unreachable by the sales force. Audiences for these mailings consist of advertising directors, personnel directors (for classified advertising), ad agency account executives, and media buyers.

This effort started in September to some 4,000 names. New advertisers have been found as a result and made November the third best issue of the year.

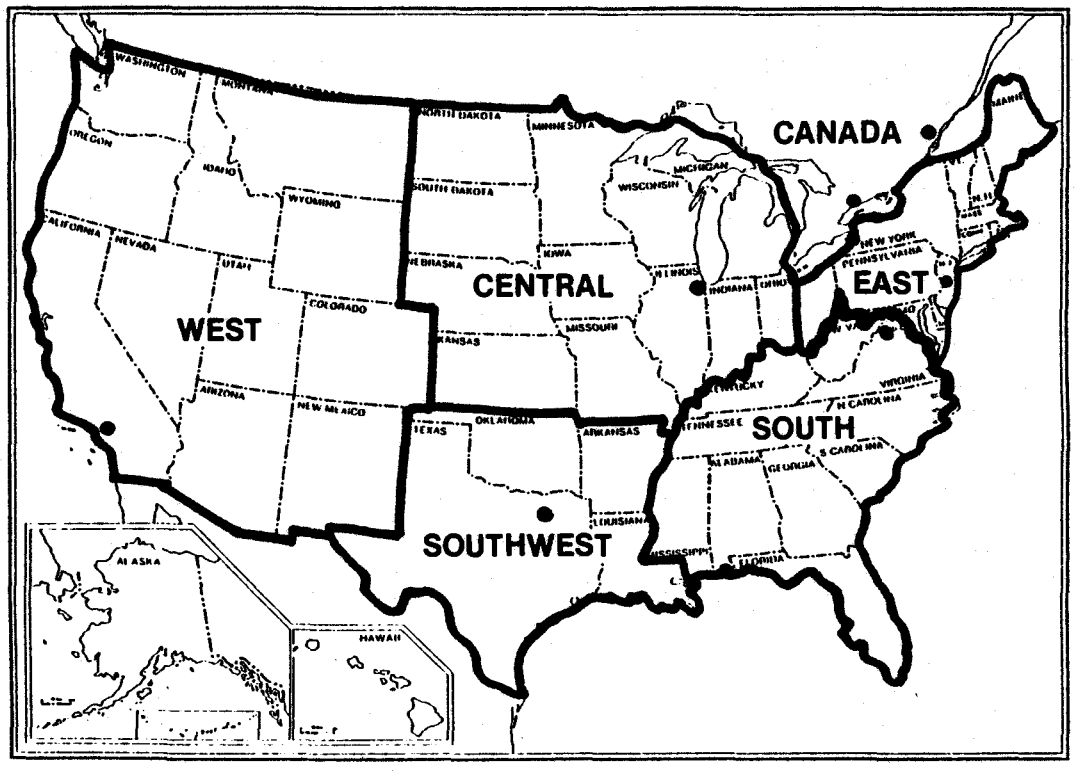
Mailings will continue throughout 1985 and will consist of ad reprints, editorial calendars, flyers promoting special issues, and marketing facts such as the purchasing power of the SME membership. All will be designed to tell the quantitative and qualitative story of MINING ENGINEERING.

Readex studies will be increased to four times in 1985: January, May (Annual Review Issue), August, and November. This will provide data on "off issues" as well as one special issue. Advertisers will have more opportunities to run multiple ad insertions and measure ad campaigns as opposed to "one-shot" insertions in special issues. MINING ENGINEERING editorial staff will receive more reader feedback on articles, etc.

The publishing industry predicts an average advertising rate increase of 10-15%. MINING ENGINEERING's rates effective January 1, 1985, will increase 15% and should still remain competitive.

By following through with all the changes and activities begun in 1984, next year should see positive results. Marketing's goals are to increase advertising revenue 35% and increase MINING ENGINEERING's share of market to 8%.

US AND CANADIAN SALES TERRITORIES



MEETINGS

The initial step of the new SME-AIME meetings policy was implemented with the move of the Technological Information Exchange Exhibit to the Annual Meeting starting in 1987. The concept of and procedure for regional, specialty, and topical meetings, conferences, and seminars on a singular or repetitive basis is under study for implementation by a "Blue Ribbon" ad hoc committee with representation from each Division and the Minerals Resource Management Committee.

FUTURE SME-AIME MEETINGS SCHEDULE

ANNUAL MEETINGS	FALL MEETINGS
Feb. 24-28, 1985 (New York City)	*Oct. 16-18, 1985 (Albuquerque)
Mar. 2-6, 1986 (New Orleans)	Sept. 7-10, 1986 (St. Louis)
*Feb. 24-27, 1987 (Denver)	
*Jan. 26-29, 1988 (Phoenix)	
*Feb. 28-Mar. 3, 1989 (Las Vegas)	

*With Exhibit

The continued economic decline impacted on meetings. Though both the Annual and Fall Meetings fell short of projected attendance, cost containment measures caused both meetings to show a surplus.

The Annual Meeting was held in Los Angeles, California, with a limited local membership and high costs. Overall attendance was up over the previous year, 1,680 in 1983 compared to 1,827 in 1984. The surplus of $3,713 compares to a loss of $206 for the previous year.

The Fall Meeting has always done exceptionally well in Denver with a large local population and attractive prices. However, the meeting fell short of attendance and exhibit expectations. Nevertheless, the meeting realized a surplus of $45,869 compared to a $32,143 surplus in 1983.

Though the Offshore Technology Conference (OTC) did not have an exhibit and did not realize a surplus from the papers-only conference, money held in reserve pending the outcome of the antitrust lawsuit resulted in revenue of $33,709. As the OTC was successful in defending itself against the lawsuit, the reserve was distributed.

SME-AIME MEETINGS REVENUE VS. EXPENSE 1983-1984

	1983	1984
Revenue	15.3% ($430,873)	17.5% ($485,418)
Expense	13.2% ($353,612)	14.8% ($409,086)
Surplus	$ 77,261	$ 76,332

ANNUAL MEETING

The 1984 Annual Meeting was held February 26-March 1 in Los Angeles. Total SME-AIME registration was up 147. The following charts indicate: 1) attendance by SME-AIME members at the Annual Meeting since 1963, and 2) Annual Meeting comparisons, 1976-1984.

SME-AIME MEMBER ATTENDANCE -- ANNUAL MEETINGS

Year	Location	Attendance Number	Attendance Percent	
1963	Dallas, Texas	1,079	47.0%	
1964	New York, New York	1,221	44.2%	
1965	Chicago, Illinois	1,073	48.2%	47.8% Average
1966	New York, New York	1,438	47.7%	
1967	Los Angeles, California	1,421	48.5%	
1968	New York, New York	1,632	51.1%	
			→	Institute of Metals Division of TMS Stopped Programming
1969	Washington, D.C.	1,478	63.1%	
1970	Denver, Colorado	2,399	69.4%	
1971	New York, New York	1,460	62.0%	
1972	San Francisco, California	1,581	72.8%	65.5% Average
1973	Chicago, Illinois	1,145	62.9%	
1974	Dallas, Texas	1,235	63.2%	
1975	New York, New York	1,263	65.0%	
			→	Institute of Metals Division of TMS Resumed Programming
1976	Las Vegas, Nevada	1,840	64.0%	
1977	Atlanta, Georgia	1,381	55.0%	
1978	Denver, Colorado	2,076	66.0%	
1979	New Orleans, Louisiana	1,777	59.1%	56.2% Average
1980	Las Vegas, Nevada	2,066	58.0%	
1981	Chicago, Illinois	1,400	52.1%	
1982	Dallas, Texas	1,144	49.1%	
1983	Atlanta, Georgia	1,137	50.5%	
1984	Los Angeles, California	1,276	51.7%	

SME-AIME Annual Meeting—1976 Through 1984 by Location-Registration-Financial Performance

Registration	1976 Las Vegas	1977 Atlanta	1978 Denver	1979 New Orleans	1980 Las Vegas	1981 Chicago	1982 Dallas	1983 Atlanta	1984 Los Angeles
Members	1,840	1,381	2,072	1,777	2,066	1,400	1,144	1,137	1,276
Nonmembers	423	188	270	247	350	208	160	187	177
Nonmember Authors	75	77	89	126	175	110	83	106	112
SEG	31	9	51	55	39	21	47	72	86
CIM	35	10	12	19	15	10	8	9	6
AIMMG	8	-0-	-0-	1	1	1	-0-	-0-	-0-
Founder Societies	-0-	-0-	-0-	9	8	3	1	5	2
Student Members	133	136	268	212	240	135	74	150	147
Student Nonmembers	35	14	30	27	23	7	15	14	21
Total Registration	**2,580**	**1,815**	**2,792**	**2,473**	**2,917**	**1,895**	**1,532**	**1,680**	**1,827**
Surplus (Loss)	$35,860	$ 32	$16,967	$19,830	$30,280	$ 6,674	$(47,119)	$(206)	$3,713

Two symposia were conducted at the Annual Meeting: Bauxite Symposium (IndMD) and Control '84: First International Symposium on Modeling and Control in Mineral Processing and Process Metallurgy (MPD/TMS-AIME). The number of sessions increased again to 80 with 420 papers.

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	M & E	MPD	MRMC	SEG	TOTAL
1977							
ATLANTA	11/47	6/30	12/42	12/61	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
TOTAL	20/108	6/30	12/42	12/61	2/8	—0—	52/249
1978							
DENVER	10/41	1/5	11/48	17/82	—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
TOTAL	10/41	8/43	11/48	17/82	4/16	7/38	50/230
1979							
NEW ORLEANS	11/46	5/24	13/70	16/86	2/8	4/23	51/257
Joint	2/10 w/MPD 1/4 w/MRMC	1/5 w/M&E	1/5 w/IndMD 1/4 w/MRMC	2/10 w/Coal 1/5 w/MRMC	1/4 w/Coal 1/5 w/MPD 1/4 w/M & E	—0— —0—	6/28
Symp	—0—	6/32 Laterite	—0—	—0—	—0—	—0—	6/32
TOTAL	14/60	12/61	15/79	19/101	5/21	4/23	63/317
1980							
LAS VEGAS	8/39	6/30	11/51	13/72	2/7	5/23	45/222
Joint	—0—	2/10 w/MPD 1/4 w/MRMC	—0—	2/10 w/IndMD	1/4 w/IndMD	—0—	3/14
Symp	—0—	—0—	—0—	16/91 Fine Particles	—0—	—0—	16/91
TOTAL	8/39	9/44	11/51	31/173	3/11	5/23	64/327
1981							
CHICAGO	6/29	6/27	12/60	18/80	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
TOTAL	12/58	7/31	12/60	18/80	5/21	5/26	58/272
1982							
DALLAS	4/20	5/20	8/42	19/109	4/16	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/MPD/TMS	2/9 w/Coal 3/17 w/M & E/TMS	1/5 w/Coal 1/3 w/IndMD	—0— —0—	9/43
Symp	—0—	—0—	—0—	—0—	—0—	—0—	0/0
TOTAL	9/43	6/23	13/68	24/135	6/26	5/26	54/278
1983							
ATLANTA	14/70	4/21	12/61	11/61	6/30	5/25	52/288
Joint	1/6 w/M&E 1/5 w/MPD	2/9 w/MRMC 2/10 w/IndMD	1/6 w/Coal	1/5 w/Coal 2/10 w/IndMD	2/9 w/IndMD	—0—	6/30
Symp	—0—	—0—	—0—	5/25 w/TMS 10/63 Hydro w/TMS	—0—	—0—	5/25 10/63
TOTAL	16/81	8/40	13/67	29/164	8/39	5/25	73/386
1984							
LOS ANGELES	9/45	4/19	12/66	15/84	3/16	7/38	50/268
Joint	1/6 w/M&E 1/5 w/MRMC	—0—	1/6 w/Coal 1/5 w/MRMC	7/36 w/TMS	1/4 w/SEG 1/5 w/M&E 1/5 w/Coal	1/4 w/MRMC	11/56
Symp	—0—	8/47 Bauxite	—0—	11/49 Control 84	—0—	—0—	19/96
TOTAL	11/56	12/66	14/77	33/169	6/30	8/42	80/420

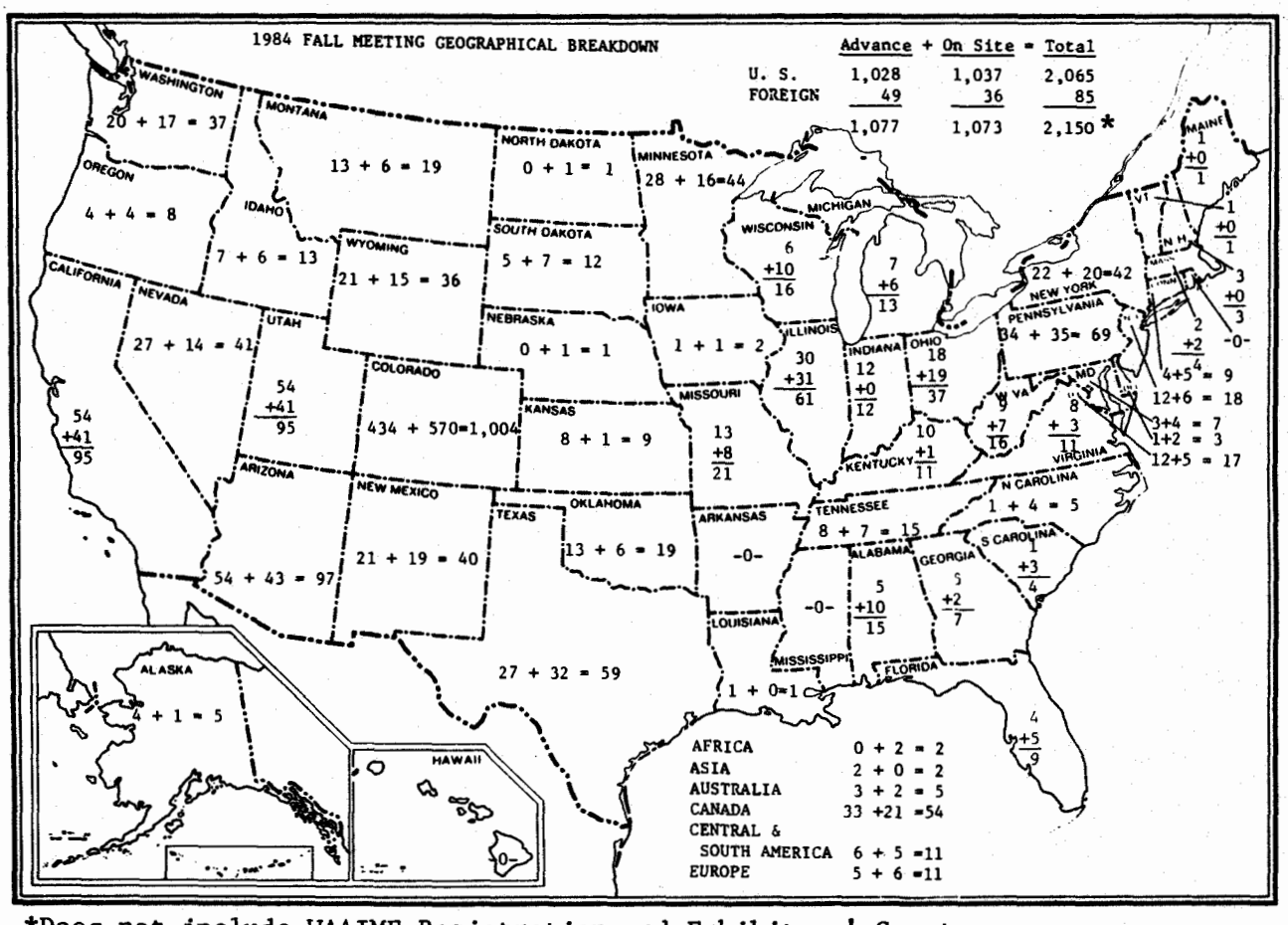
FALL MEETING

The 1984 Fall Meeting and Exhibit was held October 24-26 in Denver. Attendance and exhibit sales were down from the last time the meeting was held in Denver, though the overall attendance and exhibit sales increased over 1983. The following charts indicate: 1) Fall Meeting comparisons, 1976-1984 and 2) geographical breakdown by registrant.

SME-AIME Fall Meeting—1976 Through 1984 by Location-Registration-Exhibit Sales-Financial Performance

Registration	1976 **Denver	1977 St. Louis	1978 *Orlando/ Nassau	1979 Tucson	1980 Minneapolis	1981 Denver	1982 *Hawaii	1983 Salt Lake City	1984 Denver
Members	1,340	915	637	1,702	804	1,789	629	1,227	1,011
Nonmembers	216	179	84	343	115	311	28	188	223
Student Members	133	103	20	104	85	234	3	138	66
Student Nonmembers	19	5	3	31	6	36	8	10	15
WAAIME's	297	177	287	452	135	294	351	167	190
Exhibitors***	494	350	- 0 -	517	185	701	- 0 -	412	497
Exhibits Only	215	137	- 0 -	175	50	502	- 0 -	128	338
Guests of Exhibitors	609	350	- 0 -	273	76	498	- 0 -	323	297
Total Registration	**3,323**	**2,216**	**1,031**	**3,597**	**1,456**	**4,365**	**1,019**	**2,593**	**2,637**
Exhibit Booths Sold	151	144	- 0 -	157	81	187	- 0 -	107.1	134.5
Exhibiting Companies	108	96	- 0 -	112	53	130	- 0 -	76	96
Surplus (Loss)	$2,076	$11,954	$(33,654)	$57,873	$(12,646)	$70,998	$(50,750)	$32,143	$45,869

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



*Does not include WAAIME Registration and Exhibitors' Guests

Programming at the Fall Meeting included three symposia: Borates: Economic Geology and Production (IndMD); Applied Mining Geology: Problems of Sampling and Grade Control (M&E); and Geomechanics Applications in Underground Hardrock Mining (M&E). A total of 44 sessions were presented with 213 papers.

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	M & E	MPD	MRMC	KEYNOTE/GEM OTHER	TOTAL
1977							
ST. LOUIS	8/34	8/38	7/32	8/37	1/6	1	33/147
Joint	—0—	—0—	—0—	1/4 w/MRMC	1/4 w/MPD	—0—	1/4
Symp	—0—	—0—	—0—	4/20 w/Ld/Zinc	—0—	—0—	4/20
TOTAL	8/34	8/38	7/32	13/61	2/10	1/0	38/171
1978							
ORLANDO/ NASSAU	5/22	4/19	6/28	5/25	3/13	1/1	24/108
Joint	1/4 w/M&E	2/9 w/MPD	1/4 w/Coal	2/9 w/IndMD	1/4 w/Coal	—0—	4/17
Symp	1/4 w/MRMC	—0—	—0—	—0—	—0—	—0—	—0—
TOTAL	7/30	6/28	7/32	7/34	4/17	1/1	28/125
1979							
TUCSON	5/22	5/23	8/41	7/35	1/4	1/3 1/4	28/132
Joint	—0—	—0—	1/5 w/Ap. Com.	1/3 w/ISA	1/5 w/Ap. Com.	—0—	3/13
Symp	—0—	—0—	10/47 w/Ap. Com.	1/3 w/ISA	—0—	—0—	11/50
TOTAL	5/22	5/23	19/93	9/41	2/9	1/3 1/4	42/195
1980							
MINNEAPOLIS	6/31	5/23	10/53	8/32	2/6	1/2 —0—	32/147
Joint	1/5 w/MRMC	—0—	—0—	—0—	1/5 w/Coal	—0— —0—	1/5
Symp	—0—	—0—	—0—	—0—	—0—	—0— —0—	—0—
TOTAL	7/36	5/23	10/53	8/32	3/11	1/2 —0—	33/152
1981							
DENVER	6/28	3/15	7/36	6/29	1/4	1/5 —0—	24/117
Joint	1/5 w/MPD 1/4 w/MRMC	1/5 w/MRMC	—0—	1/5 w/Coal	1/4 w/Coal 1/5 w/IndMD	Career Guid.	3/14
Symp	—0—	—0—	5/27-Sol. Mining 11/59-Caving	—0—	—0—	—0—	5/27 11/59
TOTAL	6/37	4/20	23/122	7/34	3/13	1/5 —0—	43/217
1982							
HAWAII	11/54	5/30	7/34	8/43	5/25	—0— —0—	36/186
Joint	1/4 w/MPD 1/5 w/MRMC 2/11 w/M&E	2/8 w/MRMC	2/11 w/Coal	1/4 w/Coal	1/5 w/Coal 2/8 w/IndMD	—0— —0—	6/28
Symp	4/28 Longwall	—0—	—0—	7/60 Comminution	—0—	—0— —0—	11/88
TOTAL	19/102	7/38	9/45	16/107	8/38	—0— —0—	53/302
1983							
SALT LAKE	7/34	6/28	5/22	10/50	2/9		30/142
Joint	1/6 w/M&E 1/4 w/MRMC	1/5 w/MRMC	1/6 w/Coal 3/15 w/MPD 1/4 w/MRMC	3/15 w/M&E	1/4 w/Coal 1/5 w/IndMD 1/4 w/M&E	—0— —0— —0— —0— —0— —0—	7/34
Symp	—0—	—0—	3/16 Geol. 3/16 Leaching	—0—	—0—	—0— —0— —0— —0—	3/15 3/16
TOTAL	9/44	7/33	16/79	13/65	5/22	—0— —0—	43/207
1984							
DENVER	8/37	4/23	7/35	11/51	3/14	1/6	34/166
Joint	1/5 w/M&E	1/5 w/MRMC	1/5 w/Coal	1/4 w/MRMC	1/5 w/IndMD 1/4 w/MPD 1/4 w/Colo. Sect.	Career Guid. —0—	4/18
Symp	—0—	2/11 Borates	4/18 Geomech	—0—	—0—	—0—	6/29
TOTAL	9/42	7/39	12/58	12/55	6/27	1/6	44/213

OFFSHORE TECHNOLOGY CONFERENCE (OTC): SURPLUS TO SME 1970 - 1984

Year	Surplus	Year	Surplus	Year	Surplus
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	1984	33,709
				Total	$896,501

RAPID EXCAVATION AND TUNNELING CONFERENCE (RETC)

Plans for the 1985 RETC, June 16-20, New York, New York, progressed well through the year. 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 through ASCE.

PREPRINT ACTIVITY

During FY 1984 338 papers were preprinted: 182 for the 1984 Annual Meeting, 141 for the Fall Meeting, and at year-end 15 papers for the 1985 Annual Meeting. Revenue from preprint sales at the 1984 Annual Meeting was $15,236 compared with $20,365 at the 1983 Annual Meeting. A total of 8,319 preprints were distributed at the meeting. Revenue at the 1984 Fall Meeting (attendance was 2,637) was $12,935 compared with $16,423 at the 1983 Fall Meeting (attendance was 2,594). A total of 6,670 preprints were distributed. Total revenue in FY 1984 for the program was $41,845 compared to $57,645 in FY 1983 and expense was $34,201 compared to $43,762. The decline in revenue and expense reflected lower member attendance at the Fall Meeting (1,227 to 1,011) and fewer papers preprinted.

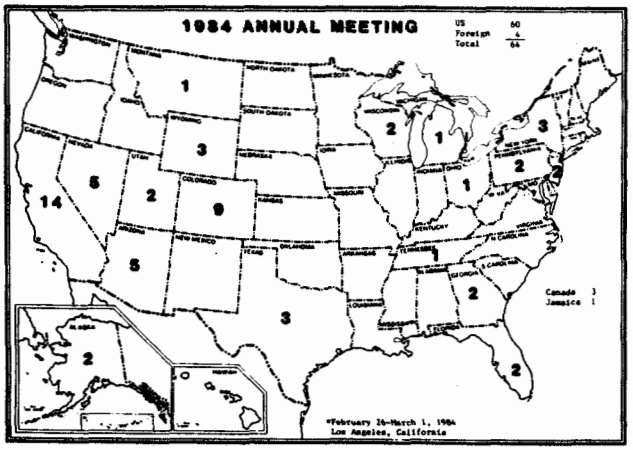
SHORT COURSE ACTIVITY

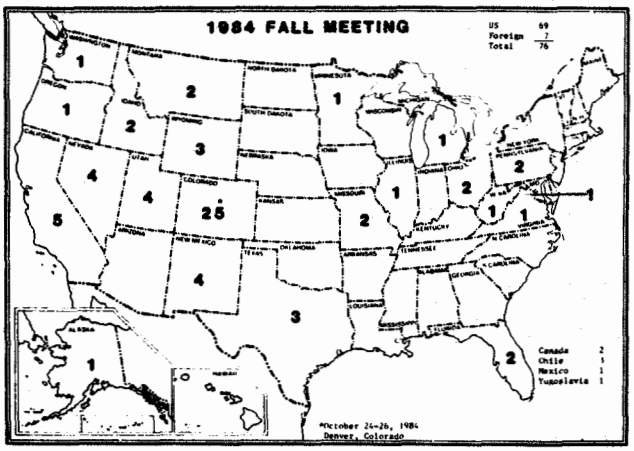
As one of the recommendations of the Long Range Planning Commission, a small, presidentially appointed Short Course Committee was established to assist the Meetings Manager in identifying new courses and reviewing existing ones and presenting short courses on a repetitive basis so as to spread developmental costs over more than one offering and to take the courses where the members are. The Committee is actively pursuing these goals. In 1984 a total of 134 registrants attended the six short courses sponsored by the Society. Maps indicating the geographical breakdown by meeting, as well as a chart indicating the breakdown by meeting and course follow on the next pages.

SME-AIME SHORT COURSE REVENUE VS. EXPENSE 1983-1984

	1983	1984
Revenue	$28,200	$51,925
Expense	26,448	48,422
Surplus	$ 1,752	$ 3,503

SHORT COURSES--GEOGRAPHICAL DISTRIBUTION





1984 SME-AIME SHORT COURSE ATTENDANCE

ANNUAL MEETING

Introduction to Microcomputers	41
Professional Engineer Review Course in Mining Engineering, Part I	17
Total, Annual Meeting	58

FALL MEETING

Applied Mineral Economics for Geologists	18
Essentials of Geological Mapping for Geotechnical and Mine Planning Purposes	14
Introduction to Microcomputers	23
Professional Engineer Review Course in Mining Engineering, Part II	21
Total, Fall Meeting	76
TOTAL 1984 SHORT COURSE REGISTRATION	134

GENERAL MEMBER SERVICES

1984 began on an optimistic note with first quarter admissions activity up almost 15 percent from 1983 and unpaids running behind 1983. By the second quarter, however, the trend reversed, and for the second consecutive year the Society had a net loss of corporate members at the end of the year, 431 compared to a loss of 404 the previous year. This represents a 1.7% loss in corporate membership. The drop in minerals schools enrollment was dramatically reflected in student membership, which had a net loss of 566, compared to 124 in 1983, a 16.9 percent loss. Year-end membership figures show 24,420 corporate members and 2,789 student members, for a total of 27,209 society members.

In an effort to minimize the second quarter unpaids, a personalized mailing, with questionnaire inquiring why no renewal had been received, was conducted by Membership Chairman Gordon C. Presley. A total of 2,699 letters were sent, which generated a 5 percent renewal response and a 15 percent resignation response. Almost half of those resigning indicated they were doing so because they were no longer in the mining industry and they would rejoin at a later date if they could find employment in the industry.

International membership resignations were due largely to difficulties in getting currency out of some countries for payment of dues, and a prohibitive exchange rate due to a strong American dollar which made membership unaffordable for some.

As a followup to his letter, Mr. Presley contacted the chairmen or membership chairmen of the U.S. Local Sections and provided them with names of members who were listed as unpaid. Each Local Section then carried through as they wished, some via telephone calls and others with additional correspondence.

In other general membership activity, on the first anniversary of the SME-AIME Group Insurance Program administered by Smith-Sternau Organization, Inc., there were seven insurance plans available to the membership and 1,431 certificates in force. Smith-Sternau also had a booth at the 1984 Fall Meeting so that members could stop by and obtain information.

MEMBERSHIP DEVELOPMENT ACTIVITY

As in past years, mailings generated new members at approximately a 2 percent return rate. Comparative statisics were:

MEMBERSHIP DEVELOPMENT ACTIVITY 1982-1984

	1982	1983	1984
Applications Mailed	7,699	8,534	6,485
Completed Applications Returned	80	203	187
% Returned vs. Mailed	1.04%	2.37%	2.88%

The following mailings were conducted in 1984:

MEMBERSHIP DEVELOPMENT RESULTS

Source	Number Mailed	Applications Received
1981-82 Review of Alaska	90	12
Interstate Mining Compact Commission	135	4
Geothermal Resources Council	323	5
Mineral Industries Establishments in Mississippi	35	0
Mineral Industries Establishments in Alabama	66	1
Mineral Industries Establishments in Florida	62	0
Registrants - 19th Forum on the Geology of Industrial Minerals	133	10
1983 Membership Directory - AIPG	3,015	84
1982 Directory of Mineral Related Associations & Organizations	325	5
Who's Who in Shale	56	1
Association Members of the North American Gold Mining Assns. Ltd.	72	2
Women in Mining	153	0
Advertisers Directory - Rock Prod.	48	6
AMC Coal Show	1,972	57

The annual President's Letter, encouraging each member to recruit one new member, was also affected by the minerals industry recession and was not as effective this year as it has been historically. Thus far, 308 applications have been received compared to 365 in 1983 and 373 in 1982.

The two membership development recognition programs in effect during 1984 were the Annual Membership Development Recognition Program and the Continuing Membership Development Recognition Program.

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, 1983, to September 30, 1984. For the fifth consecutive year, this honor 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 246 new members, for a cumulative total of 1,017. 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)	1984	Gordon C. Presley (246)

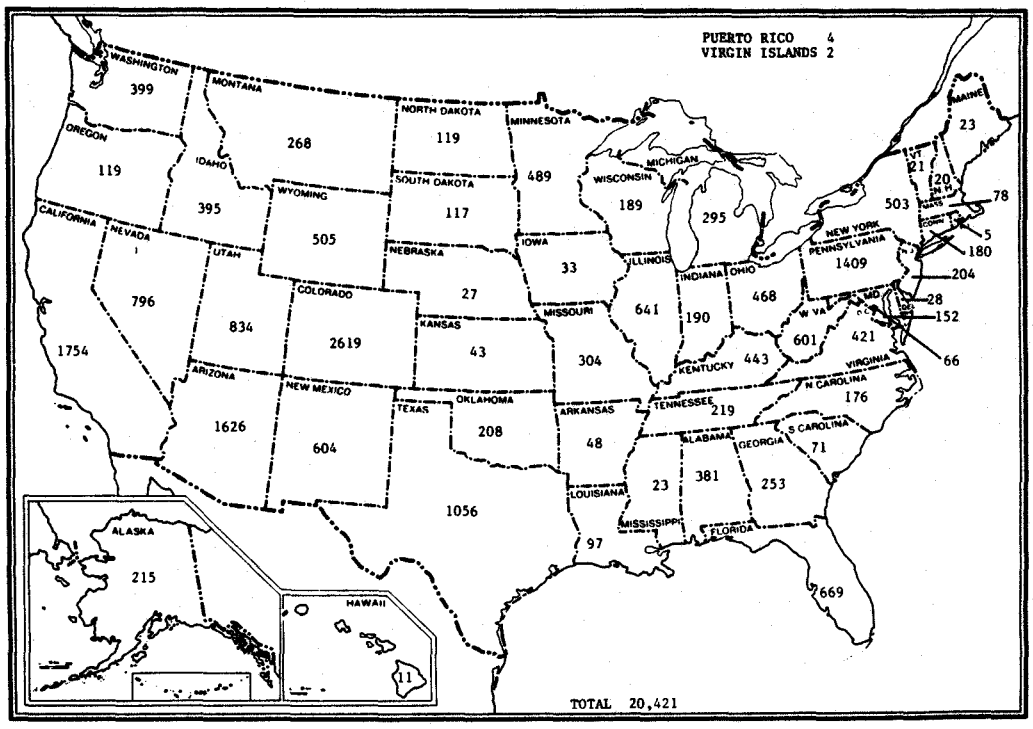
Continuing Membership Development Recognition Program: Completing its first decade, the continuing program has had 2,509 participants and recruited 6,941 new members since the program's inception in 1974. Forms of recognition and number of participants by year follow:

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	TOTAL
1-Set of Coasters	-	-	-	-	-	269	271	216	234	166	1,156
5-Paper Clip Holder	17	25	30	30	25	29	34	21	16	29	256
10-Desk Clock	4	6	16	6	12	13	16	10	12	3	98
25-Pen/Pencil Set	1	1	1	2	5	1	7	-	3	2	23
50-Special Plaque	1	-	-	-	1	1	-	-	-	-	3
100-Life Membership	-	-	1	-	-	1	-	-	-	-	2

MEMBERSHIP STATISTICS

In 1984 SME-AIME membership decreased from 28,206 to 27,209, for a net loss of 3.5%. This compares to last year's loss of 1.8%.

U.S. MEMBERSHIP BY STATE As of January 1, 1985



TOTAL CORPORATE MEMBERSHIP BY DIVISIONAL INTEREST

AS OF	COAL	INDMD	M&E	MPD	EDUC	ECON	STUD	UNCLASS	TOTAL MEMBERS	CORPORATE MEMBERS
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
1/1/1985	4,782	1,383	12,929	3,860	220	742	2,789	504	27,209	24,420

MEMBERSHIP OUTSIDE U.S. BY DIVISIONAL INTEREST

	COAL	INDMD	M&E	MPD	EDUC	ECON	UNCLASS	TOTAL
Africa	16	15	172	56	3	18	11	291
Asia	22	19	215	66	7	16	11	356
Australia	122	16	428	109	6	13	12	706
Canada	125	43	848	261	10	44	21	1,352
Central America	0	1	23	5	1	4	1	35
Europe	61	52	335	136	6	30	14	634
Mexico	2	5	88	19	2	12	6	134
South America	18	24	281	113	4	20	4	464
West Indies	1	1	17	4	1	2	1	27
TOTAL	367	176	2,407	769	40	159	81	3,999

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	15,950	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
1/1/1985	27,209	24,420	14,119	4,588	5,419	294	2,789

CORPORATE MEMBERSHIP CHANGES 1976-1984

Losses	1976	1977	1978	1979	1980	1981	1982	1983	1984
Deaths	132	141	178	122	135	128	153	152	124
Resignations	276	241	385	367	506	812	691	693	972
Drops	1,137	653	858	1,213	987	1,143	1,256	1,803	1,717
Unaccepted	23	11	—	16	51	70	42	14	17
TOTAL	1,568	1,046	1,421	1,718	1,679	2,153	2,142	2,662	2,830
Gains	2,215	1,966	2,305	2,908	3,182	3,632	2,557	2,258	2,399
NET	647	920	884	1,190	1,503	1,479	415	(404)	(431)
Corporate Members	18,864	19,784	20,668	21,858	23,361	24,840	25,255	24,851	24,420
Student Members	3,608	4,427	4,612	4,019	3,425	3,564	3,479	3,355	2,789
TOTAL	22,472	24,211	25,280	25,877	26,786	28,404	28,734	28,206	27,209

SUSTAINING MEMBERS PROGRAM

A large number of members again remained unpaid at year-end. The additional collection efforts initiated in 1982 and continued in 1983 were again implemented in 1984. The first dues billing was mailed in September, with a follow-up in January, and a final notice in March. Members who did not pay their dues by the end of March were considered delinquent and no longer received their monthly issues of MINING ENGINEERING.

By the end of April, a comparison between 1983 and 1984 showed a slight decrease in unpaids from 2,620 to 2,536, down 84. At year-end, the margin of unpaids from 1983 to 1984 had reversed. Corporate unpaids were down 86 (from 1,803 to 1,717), loss of members through death was down 28 (from 152 to 124), and resignations were up 279 (from 693 to 972). These numbers, combined with the total gain of new corporate members (which was up 141 from 2,258 to 2,399), resulted in a net loss of 431 or 1.7%. This compares to a net loss of 404 or a 1.6% corporate membership decline in 1983.

A total of 2,206 members were identified as unpaid when the 1985 dues billing was mailed on September 22, 1984. Consequently, these members did not receive a 1985 billing. A total of 56 people paid their 1984 dues after the 1985 billing was made. These members will receive a supplementary dues bill in January; the other 2,150 were dropped from membership on December 31, 1984.

UNPAID MEMBERS: 1983 vs. 1984

	Unpaid 1983 Dues Dropped 12/31/83	Unpaid 1984 Dues Dropped 12/31/84
Members	1,803	1,717
Students	458	433
TOTAL	2,261	2,150

ADMISSIONS ACTIVITY

Admissions activity dropped to the lowest point in the last five years. The following includes new admissions, change of status requests, and reinstatements:

ADMISSIONS ACTIVITY LAST FIVE YEARS

	1980	1981	1982	1983	1984
Number of applications considered:	2,506	2,393	1,690	1,455	1,396
Monthly average	208	199	140	121	116

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	35
Pending information on how many years in responsible charge	2

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

	1978	1979	1980	1981	1982	1983	1984
January	146	201	173	187	165	67	116
February	135	94	118	176	218	140	110
March	157	159	269	275	105	85	102
April	116	140	130	151	77	98	115
May	154	123	385*	382	210	235	219
June	127	156	376*	234	149	196	145
July	64	122	147	178	124	107	85
August	57	88	120	191	139	101	77
September	95	126	118	0**	110	112	128
October	84	137	199	296	146	98	88
November	113	140	281	179	123	129	102
December	99	99	190	144	124	87	109
TOTAL	1,347	1,585	2,506	2,393	1,690	1,455	1,396

*Increase 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 complimentary section membership galley and mailing label programs, at a 1984 cost to the Society of $16,592, continue to be major services provided to the Local Sections.

The Section Secretary receives a complete master galley printout each month. The printout contains the mailing addresses of all members in a Section, including AIME members who are affiliated with one of the other Constituent Societies but who are assigned to an SME-AIME Local Section because there is no other Local Section in the area. In addition, each printout identifies new members with an asterisk (*); a change in a member's record, usually an address change, is indicated with a "c".

Along with the galleys, Local Sections receive monthly mailing labels that are most generally used by the Sections to announce meetings, but that can be used for any official Section mailing. Of the 73 SME-AIME Local Sections, 64 utilized the service in 1984.

Three other computer services available to the Local Sections, to aid in Section management include: dual Section assignments, affiliate member designations, and Local Section dues designation.

The dual section assignment program allows members to maintain two Sections on their computer records and be included on the mailing labels of both Sections. The first assignment is for administrative purposes, i.e., an automatic assignment based on location, to be used for membership counts and rebates; the second assignment is an optional one for personal preference only.

Affiliate members have been added to the data base for Local Section use only. They appear only on mailing labels provided to that particular Section and are not included in any mailings by Headquarters. To date, 16 Local Sections have added affiliate members to their mailing lists.

The Local Section dues designation program was designed to assist Local Sections that collect local dues and mail only to those who have paid local dues, a practice particularly useful to the larger Local Sections. When SME-AIME Headquarters receives a list of the local dues paying members, nonpaying members are removed from the mailing labels but continue to be included on the monthly galley printout and will continue to be included in all national member services if they continue to pay national dues.

To aid Sections with inter-Section correspondence or correspondence with national officers and Board members, a bound Local Section Directory containing the names and addresses of officers and committee chairmen of all SME-AIME Sections and Subsections is updated and distributed semiannually. In addition, the directory lists all Student Chapters and officers plus names and addresses of all national officers and members of the Board of Directors.

Four administrative manuals are also published and distributed to new Local Section officers to assist them with administrative activities. These manuals include: Local Section Operations Manual, Membership Development Manual, GEM

Operations Manual, and Student Chapter Operations Manual. When SME-AIME Headquarters receives the announcement of new officers, a welcome letter and the manuals are sent to the new chairman; another welcome letter is sent to all of the other new officers informing them that the chairman has received the manuals and encouraging them to review the information.

All new Local Section chairmen are also invited to participate in the news release program by sending SME-AIME Headquarters a current resume, two black and white pictures, and the names and addresses of two local newspapers. A news release on the election is then sent to the designated newspapers and the chairman is encouraged to send a copy of the published announcement of the election to Headquarters to become a permanent part of the Section's file.

A compilation of technical programs at Local Section meetings from September 1983 through June 1984 was sent to all SME-AIME administered Local Sections and Subsections in June. It included the names and telephone numbers of the Local Section Program Chairmen should any other Section wish to invite a particular speaker.

CORPORATE MEMBERSHIP CHANGES BY REGION (1979-1984)

	1979	1980	1981	1982	1983	1984	Change (1983-1984)
Eastern	4,999	5,264	5,567	5,864	6,334	7,711	+1,377
Central	4,107	4,571	4,686	4,703	4,730	4,796	+ 66
Western	10,202	11,015	11,772	11,951	11,825	11,669	- 156

LOCAL SECTION ACTIVITY — BY REGION

Eastern Region: A scholarship fund was established by the Florida Section. The Section anticipates awarding between two and four $500 scholarships to Junior and Senior students attending colleges in Florida and pursuing careers in the minerals industry.

The transfer of administration of the Pittsburgh Section from TMS-AIME to SME-AIME is complete, adding approximately 1,000 members to the Eastern Region. The Section has been studying the issue of a rebate increase and presented a report to the Eastern Regional Section Representatives at the Fall Meeting in Denver. They noted since they collected no local dues, rebates were a major source of income for the Section and the money is no longer adequate due to inflation and the high cost of mailings for a large Section. They also commented that the American Society for Metals (ASM) presented a significant programming challenge in their area since ASM local sections receive a 25 percent rebate of member dues and thus have more money to spend on programming. The report will be reviewed by the Executive Committee of Section Representatives when they meet in New York.

The New York Section still has some concerns about the way in which the formation of the TMS-AIME New Jersey Section was handled, and the future implica-

tions for the New York Section. A follow-up report on the transfer will be given to the Executive Committee of Section Representatives at the Annual Meeting.

At the 1983 Eastern Regional Meeting, the Penn-Anthracite Section expressed concern on the legal responsibility of accidents resulting from alcohol consumed at their Section meetings. The Representatives requested the Society to seek advice for future reference. As a result, comments for discussion from Society lawyers were presented to all the regional section representatives at the Fall Meeting in Denver and distributed to all Local Sections via the minutes from the meeting. All Local Sections were encouraged to review the comments and the Society is investigating comprehensive insurance coverage.

An inquiry was received from Morehead State University, Morehead, Kentucky, indicating they would like to form a student chapter. Implementation should take place early in 1985.

The Eastern Region experienced the death of their Regional Vice President, Roland E. Manger at the 1984 Annual Meeting. SME-AIME President Frederic L. Kadey, Jr. appointed Eastern Regional Vice President-Elect Mark E. Emerson to complete Mr. Manger's unexpired term. Another loss for the Region was the Eastern Region Chairman-Elect, Donald B. Sylvia of the Georgia Section, who died after the 1983 Fall Meeting. JoAnn Bowman of the Florida Section was appointed by Eastern Regional Chairman, James N. Richardson, to serve as temporary Chairman-Elect; she was subsequently confirmed as Chairman-Elect at the 1984 Fall Meeting.

Central Region: At the meeting of the Central Regional Section Representatives in Denver, the South Texas Minerals Section requested a discussion of an increase in Local Section rebates from a $.75 per member to $2 per member. In support of their request, they argued that: (1) more of the annual dues should be returned to the Section; (2) more funds should be available for sending delegates to Regional Meetings (this is a suggested use of rebates, not a bylaw requirement); (3) mailings are expensive; (4) contact between the Section and local members (approximately 300) is more important to national than local. The report will be reviewed by the Executive Committee of Section Representatives at the 1985 Annual Meeting.

At the Fall Meeting, the Eastern Regional Section Representatives discussed the matter of how to achieve an industry-Local Section interface. It was suggested that Local Sections could use company presidents as speakers, as there is CEO support of SME-AIME that is not being capitalized upon. John E. Mahoney, Jr., the Central Regional Vice President, will express the Region's views to the Executive Committee of Section Representatives.

The Texas Coast Mining and Metals Section amended their bylaws and released territory to the South Texas Minerals Section to facilitate formation of the new Central Texas Subsection. Bylaws revisions were also made by the South Texas Minerals Section to accommodate the changes. The Midwest Coal Section revised its bylaws regarding Section membership, election date for officers, Section dues, and meeting dates. A petition was received for the establishment of the Iron Range Subsection of the Minnesota Section and dissolution of the Section's Mining and MPD Subsections.

The Central Region now has a new student chapter at the University of Texas-Dallas.

Western Region: The Wyoming Mining and Metals Section donated $30,000 towards the development of the textbook entitled "Mining, Minerals and Me." This elementary education program designed for grades kindergarten through six, produced by Larry McBiles in conjunction with the Arizona Mining Association and the Mineral Information Institute, helps young people begin to develop a full understanding of the role minerals play in their lives.

In addition, a Wyoming Teacher's Resource Guide is being developed to assist elementary teachers in fulfilling the objective of educating Wyoming students on the mineral resources of their state, how they are developed and used, as well as our nation's reliance on minerals and mineral development. It is being designed to be used alone or as a supplement to "Mining, Minerals and Me."

Bylaw revisions regarding jurisdictional definitions were received from the Tucson Section. The Colorado Section released Grand County to the Intermountain Section and bylaws were amended for both Sections to reflect the changes. Further amendments were approved for the Colorado Section as a result of releasing 21 counties for the formation of a new Southeastern Colorado Section and the dissolution of the Canon City Subsection.

At the Annual Meeting in Los Angeles, the Executive Committee of Section Representatives reviewed the recommendation from the Western Region that consideration be given to reporting MINING ENGINEERING articles in the units in which the project was accomplished. The recommendation was referred to the MINING ENGINEERING Committee as a consideration and they confirmed their present policy. The decision was reported to the Western Region Representatives at the Fall Meeting and no further action was taken.

The role of rebates was also a topic of discussion at the Western Regional Representatives meeting during the Fall Meeting in Denver. Some Sections felt that rebate money should be used for the Section Representatives' travel expenses to meetings, while others disagreed because some Sections rely on rebate money as the sole source of income. Some representatives felt that every Section needs some sort of money-making project whether it is parties, seminars, or symposiums, and the topic of how Sections raise funds will be explored further at the 1985 Fall Meeting.

STUDENT AFFAIRS ACTIVITY

At the time of the 1985 dues billing, the middle of September, 299 students graduating in 1984 had not yet responded to three requests for graduation and/or employment information. A final mailing and continued follow-up reduced this number to 208 who were dropped at year-end for not supplying this required information. Additionally, another 433 were dropped for nonpayment of dues. This brought the year-end total of student members to 2,789, representing a loss of 566. This compares to last year's 262 and 165 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 1,318 in 1983 to 1,039 in 1984), down 279. Student member statistics for the last six years follow:

STUDENT MEMBERSHIP CHANGES 1979-84

Losses	1979	1980	1981	1982	1983	1984
Deaths	8	2	—	—	—	—
Resignations	—	—	—	—	—	—
Drops	1,126	1,213	676	613	623	641
Changes of Status	1,085	1,020	1,005	904	819	964
TOTAL	2,219	2,235	1,681	1,517	1,442	1,605
Gains	1,626	1,641	1,820	1,432	1,318	1,039
NET	(593)	(594)	139	(85)	(124)	(566)
TOTAL STUDENT MEMBERS	4,019	3,425	3,564	3,479	3,355	2,789

DIVISION ACTIVITY

Coal Division: The Coal Division presented its first recognition awards, to Scholarship Endowment Fund contributors, at the Annual Meeting in Los Angeles. Membership in SME-AIME was made a requirement for scholarship winners and the Division will pay Society dues from the Scholarship Fund for scholarship winners for the duration of their student membership. At year-end the Scholarship Endowment Fund contained almost $169,000, including outstanding pledges.

In reviewing the Scholarship Endowment Fund Drive at the 1984 Annual Meeting, it was recommended that the current Scholarship Fund Drive be set up with regional subcommittees of three to five individuals who would canvass their area with face-to-face appeals at small mining companies, mining construction, and manufacturing headquarters in their area. A subcommittee met at the AMC Coal Show in May and chose regional subcommittee chairmen. All regions are now covered and a full status report will be given at the Annual Meeting in New York. In addition, a solicitation of Coal Division members was mailed in December, reminding them that donations made prior to December 31, 1984, were tax deductible for that year.

The Division also approved changes in the Young Engineer Award criteria. The major changes are in the Purpose and Scope, Eligibility, and the addition of the Nomination Form. They were published in the August issue of Mining Engineering magazine and were approved by the SME-AIME Board at the Fall Meeting.

The Best Paper Award procedures were also reviewed and revised at the 1984 Annual Meeting in order to improve the methods of selection and the technical quality of the papers. The Award criteria were then approved by the Coal Division Executive Committee and published in the August 1984, issue of MINING ENGINEERING and were approved by the SME-AIME Board of Directors at the Fall Meeting. At the Fall Meeting it was decided that a certificate rather than a plaque would be given to each contributing author of a winning paper. The first awards presentation will take place at the 1985 Annual Meeting.

The Division voted to approve publication of the "Proceedings of the Second Western Regional Conference on Precious Metals, Coal, Industrial Minerals and Environment" held in Rapid City, SD, September 13-15, 1984, under the auspices of the Black Hills Section. This project, subsequently, has been dropped.

Division programming at the 1984 Annual Meeting included nine sessions plus a joint session with M&E and one with MRMC. The Fall Meeting included eight technical sessions plus a joint Underground Ventilation Session with M&E. Plans for the 1985 Annual Meeting include seven sessions plus one joint session.

Industrial Minerals Division: The Division's Gerald V. Henderson Memorial Scholarship awards will now include payment of students' SME-AIME membership dues as part of the award. Dues payments will continue for the tenure of the status of the winner(s) as student(s). In addition, payment of the first full year of Junior membership will also be part of the scholarship award. Currently, two scholarships per year are being awarded from the interest available from the scholarship fund.

Two new awards - "Best Paper" and "Young Scientist" - are in the formative stage. Committees were appointed at the Annual Meeting to review the feasibility and criteria for the two awards. At the Fall Meeting, proposed rules for the Young Scientist Award were approved for publication in MINING ENGINEERING.

Better utilization of the technical committee vice chairmen was a topic of concern at the Annual Meeting in Los Angeles. The discussion continued at the Fall Meeting in Denver, and the subcommittee working on a Manual of Duties for Divisional Officers will report at the 1985 Annual Meeting.

The Division will hold a joint luncheon with the Minerals Resource Management Committee in New York, and encourages joint sessions on economic issues in industrial minerals at each future meeting of the Society. The concept of a potential joint session with the Mineral Processing Division was also discussed.

To encourage improved attendance at the Division business meeting, the Division will provide members a complimentary continental breakfast at the New York meeting. President-Elect Falkie attended the Division's business meeting in Denver and encouraged the Division to form a committee to discuss future programming.

Attendance at the Bauxite Symposium in Los Angeles was very good and programming continues to be an important topic at Division meetings. A request for Division and Society cosponsorship of a symposium to be called the "Second Western Regional Conference on Precious Metals, Coal, Industrial Minerals and Environment" was recommended by the Black Hills Section, as well as support for publication of the conference proceedings. (This project has been cancelled).

At the Annual Meeting the Division conducted four sessions in addition to the eight sessions in the Bauxite Symposium. At the Fall Meeting, the Division programmed four technical sessions, a joint session with the Minerals Resource Management Committee, and a Symposium, "Borates: Economic Geology and Production." Programming at the 1985 Annual Meeting will include four technical sessions, a joint session with the Minerals Resource Management Committee, and a

joint "International Symposium on Solution Mining of Salts and Brines" with the Mining and Exploration Division with program input from the Emerging and Peripheral Technology Committee of the Society of Petroleum Engineers.

Mining and Exploration Division: To generate monies for the newly approved M&E Division Scholarship Fund, the Division held an auction at the 1984 M&E Division Luncheon, that brought in approximately $600. To raise additional funds, a corporate solicitation was mailed. The Division examined other fund-raising methods at the Fall Meeting in Denver and will be contacting minerals schools to determine candidate qualification criteria. As there is currently not enough money in the Scholarship Fund to make an award, the first scholarship will be announced at the 1986 Annual Meeting rather than in 1985 as originally planned.

A letter defining the roles and obligations of each unit committee position was prepared by Jan M. Mutmansky and was approved at the 1984 Annual Meeting. Copies of the letter were mailed to the incoming unit committee chairmen to aid them in making appointments, and each current committee member received a copy. In the future, new appointees will receive a copy of the letter when Society headquarters is informed of the appointments. It is hoped this will alleviate problems and misunderstandings caused in the past by incomplete briefings.

Comments sent to W. Joseph Schlitt, III, prior to the Annual Meeting regarding the Peele Award nomination and selection procedures, were reviewed and new procedures were established. Under the new procedures, papers are divided into technical categories and initially reviewed by the unit committees with expertise in the technical category. Papers surviving the first round are then sent to the Peele Award Committee for further evaluation and final selection.

In an effort to resolve the problems between the M&E Division and the Society of Economic Geologists (SEG), Charles L. Dahl was mutually appointed as intermediary between the groups to help them identify programming and scheduling conflicts before problems arise. The direct line of communication should be mutually beneficial and should promote stronger programming in the future. In addition to his role as intermediary with SEG, C. L. Dahl replaced Winston M. Sahinen as M&E Vice Chairman-Publications.

The Division programmed 12 sessions plus joint sessions with Coal and MRMC at the Annual Meeting and seven technical sessions and a joint session with the Coal Division for the Fall Meeting, as well as two symposia, "Applied Mining Geology: Problems of Sampling and Grade Control," and "Geomechanics Applications in Underground Hardrock Mining." On the schedule for the 1985 Annual Meeting are eight technical sessions, a joint session with the Coal Division, and a joint symposium with the Industrial Minerals Division, entitled "International Symposium on Solution Mining of Salts and Brines."

Mineral Processing Division: In accordance with a motion passed by the Division at the 1984 Annual Meeting, placing a ceiling of $1,800 on the amount of money used for scholarship solicitation in any one year, the Division chairman's letter was mailed only to those Society members indicating a primary interest in mineral processing. The cost of the mailing was $1,299.50; along with the corporate solicitation letters mailed the end of August, $4,750 was received by the end of the year. In addition to scholarships, the Division also voted to pay

SME-AIME membership fees for all scholarship winners as long as they are SME student members plus their first year as Junior Members. An additional call for funds may be needed to augment the Scholarship Fund.

To generate nominees for the Division's new Young Engineer Award, the Division issued a call for nominations in MINING ENGINEERING, that included a description of the purpose of the Young Engineer Award plus qualifications sought in nominees. The first Award will be made at the 1986 Annual Meeting.

The Gaudin Award Fund received a boost when Henkel Corporation, through the efforts of Joe E. House, donated $1,000. Approximately $3,000 will have to be raised to strike Gaudin Award medals from the 500 ounces donated by Hecla Mining Company.

The Scotch Breakfast was cancelled for the New York meeting due to prohibitive costs, but it will be revived at the Fall Meeting in Albuquerque.

The Division's long-range planning committee, established in 1983, was charged with review of three broad areas: 1) Technical Aspects: publications policies and technical committees--are they adequate or should they be consolidated, dropped, or new ones initiated; 2) Role of MPD in Overall AIME and SME Structures--cooperation with TMS and IndMD, meetings and publications; 3) Management and Procedural Aspects: Nomination of officers, committee chairmen, members, awards, finance, etc.

Initial deliberations of the committee have resulted in the following general conclusions: 1) Some changes need to be made in the technical committees; additional technical committees are needed, but some of the existing ones need to be consolidated; objectives of various committees are not well defined; 2) MPD must cooperate with TMS in specific areas: Hydrometallurgy, Extractive Metallurgy, etc; too many overlapping committees and programs; 3) Some changes need to be made in management and procedural aspects; election against competition for the major offices; let's not make our publications monetary footballs. The committee sent a questionnaire to the members of the Planning Committee and reviewed these and other topics in considerable depth at the Fall Meeting in Denver. Final recommendations will be made to the Division in the near future.

MPD conducted 11 sessions in the "Control '84" joint Symposium with TMS-AIME at the Annual Meeting, plus 15 other sessions and seven joint sessions with TMS. The Division programmed 11 technical sessions for the Fall Meeting, and a joint session with the Minerals Resource Management Committee. Programming for the 1985 Annual Meeting includes 20 technical sessions, five process mineralogy sessions with TMS-AIME, the "Paul F. Kerr Memorial Symposium," and 7 sessions with TMS on chemical processing and environmental control. There are also plans for four books: "Frontier Technology in Mineral Processing," based on special programming for 1985; and "Process Mineralogy V," The Kerr Symposium; and for 1986, "Design and Installation of Concentration and Dewatering Circuits" and "Arbiter Symposium on Advances in Mineral Processing" Symposia.

LECTURE SERIES ACTIVITY

The Krumb Lecture series is named after Henry Krumb, a pioneer in applying engineering practices to mining, who died in 1958. The lecture program, in its 18th

year, continued to be a popular, oversubscribed source of speakers for SME-AIME and TMS-AIME Local Sections, with budget restrictions limiting each lecturer to five Sections each. Lecturers for 1984 were Frederick B. Henderson, III, President, The Geosat Committee, Inc.; Ronald M. Latanision, Shell Professor of Materials Science and Director of the H. H. Uhlig Corrosion Laboratory, Massachusetts Institute of Technology; and Paul E. Queneau, Professor of Engineering, Dartmouth College.

Topics included:

"Prospects for the Development of a National Materials Policy in the 98th Congress"

"Innovation in the Primary Metals Industry"

"The Future of Satellite Remote Sensing: New Tools for Global Geological Exploration"

"Future Geological Remote Sensing Systems for Space: The Joint NASA-Geosat Test Case Program"

"The Future of Satellite Remote Sensing: Results of the Fourth Geosat Flagstaff Workshop"

"The Commercialization of Geological Satellite Remote Sensing Systems"

The lecturers made 24 appearances to SME-AIME and TMS-AIME Local Sections in the United States and Mexico.

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
Nelson Severinghaus, Jr.	1984 - AIME

Mr. Severinghaus spent two weeks in Australia. He attended the 1984 AusIMM Conference in August, visited several local sections, toured mining facilities, and the Julius Kruttschnitt Center.

In 1985, AusIMM will be sending a Distinguished Lecturer to speak at Local Sections around the United States, however, the lecturer and itinerary had not been determined at year-end.

GOVERNMENT ENERGY, AND MINERALS (GEM) COMMITTEE ACTIVITY

The SME-AIME GEM Committee activities included the possible development of a slide program concept, efforts to revive interest in the GEM Committee on a Local Section level, presentation of a speakers bureau concept, and a continued liaison with the Mineral Information Institute (MII).

At the Annual Meeting in Los Angeles, the Committee viewed existing media to provide insight into the development of a SME-AIME slide program. At the Fall Meeting in Denver the Committee reviewed costs, comments from an outside consultant, and media currently available. As a result, the slide program was tabled for the present and GEM Committee funds will be used to disseminate information currently available from other sources.

Discussion of the disappointing lack of activity in GEM Committee projects centered around the possible problem created by the name "Government, Energy, and Minerals," which some members felt implies lobbying and politics rather than conveying its true purpose of translation of technology to the lay public. There was some discussion that the name be changed, only the acronym used, or perhaps find new descriptive words for GEM. At the Fall Meeting, the Committee determined that the present name was appropriate because many Society members are government employees and the minerals industry must work in cooperation with government and not view it as a negative factor.

The concept of a GEM logo was also discussed, as a means of conveying the Committee's purpose, and it was voted to ask the Colorado Section GEM Committee to examine some possibilities and report to the Committee at the Annual Meeting.

In continued cooperation with the Mineral Information Institute (MII), the Society mailed letters, with brochures explaining the initial work and approach of MII, to 5,000 randomly selected U.S. members asking for support and establishing name recognition. MII reported that as of the Fall Meeting, approximately $800 had been contributed; the average contribution was $30, about double the national average.

The National Inventors Hall of Fame invited AIME to appoint a representative to serve on its Selection Committee, which is composed of representatives from prominent national scientific and technical organizations. One to three living inventors plus one to three deceased inventors are selected for induction at ceremonies held annually at the Patent and Trademark Office in Arlington, Virginia, on the weekend nearest February 11, Edison's birthday. The AIME Executive Committee accepted the invitation and approved procedures whereby representation is rotated yearly among the four Constituent Societies. SME-AIME was asked to nominate the first representative to the Selection Committee, and Dr. Donald A. Dahlstrom accepted the appointment. The GEM Committee was asked to serve as SME-AIME's nominating body and will make its first nominations at the 1985 Annual Meeting, for review by the National Inventors Hall of Fame Selection Committee in September 1985.

MINERALS RESOURCE MANAGEMENT COMMITTEE (MRMC) ACTIVITY

Programming has continued to be the main focus of the Committee. At the Annual Meeting, MRMC considered a formal agreement for a joint session with the

Industrial Minerals Division. Due to the success of previous joint sessions, it was voted that as a matter of policy, MRMC will participate in joint sessions with IndMD at both the Annual and Fall Meetings, with either MRMC or IndMD reserving a program slot for a joint session. Further cooperation between MRMC and IndMD was fostered when MRMC accepted the invitation of the IndMD to join them for a joint IndMD/MRMC Luncheon at the 1985 Annual Meeting.

At the Annual Meeting the Committee conducted six sessions, including three joint sessions, one each with the Society of Economic Geologists, the M&E Division, and the Coal Division. At the Fall Meeting, MRMC again sponsored six sessions, including three joint sessions, one each with IndMD, MPD, and the Colorado Section.

Future program plans include a major effort on the "Finance for the Minerals Industry" Symposium and proceedings for presentation at the 1985 Annual Meeting. Session planning has included financial evaluation, strategic and financial planning, tax and accounting issues, mineral development agreements and economic rent, analysis of risk, sources of funding, and case studies. In conjunction with the Symposium, field trips to New York's financial district were arranged.

Future program plans include six sessions at the 1985 Fall Meeting and another symposium and proceedings are on the schedule for the 1986 Annual Meeting, "Economics of Internationally Traded Minerals."

PROFESSIONAL REGISTRATION COMMITTEE ACTIVITY

As part of its efforts to improve the quality of the Mining/Minerals Engineering examination, the SME-AIME Professional Registration Committee held a two-day workshop prior to the 1984 Annual Meeting in Los Angeles. During the workshop members of the Committee selected questions to be used for the October 1985 examination. Members of the Committee took questions to edit and check or write solutions to them. Although the Committee did not complete the entire task in two days and it was necessary to follow up by mail, members felt they had benefited by the opportunity to exchange ideas about problems and solutions.

The Committee, through Robert W. Piekarz, its representative on the Professional Examinations Advisory Committee (PEAC) of the National Council of Engineering Examiners (NCEE), had been working for two years to have the Mining/Minerals Engineering syllabus expanded to 23 questions from 19. The expansion would allow better accommodation of geological engineering and mineral processing-extractive metallurgy. The expanded syllabus was approved in October by both the PEAC and Uniform Examinations and Qualifications (UEQ) committees. However, the NCEE Board of Directors in December did not approve, because they were concerned with a proliferation of questions and because NCEE is presently experimenting with a machine-gradable examination. The Committee will consider appealing the decision.

In addition to preparing the 1985 examination, the Committee met the first week in January to grade 1,552 questions from the October 1983 examination. Regular Committee members were assisted by two volunteers from the US Bureau of Mines, as arranged by Lee R. Rice, a member of the Committee. The Mining/Minerals exam

is given in the fall, but there are a few exams administered in April. In 1984 there were six exams, with 64 questions sent to SME-AIME for grading. The grading was handled by Robert L. Druva of the Denver staff. The Committee will meet January 2-6, 1985, to grade the October 1984 examinations. A total of about 1,350 questions to be graded is anticipated, about 200 less than the previous year.

A major accomplishment in 1984 was publication in June of the Study Guide. The Committee had been working on it for several years. The first part of the Guide contains general information on the registration process, its requirements, bibliography, and list of state boards. The second half consists of a model examination and solutions of the questions; this exam will never be used as one of the fall exams. The Guide has been popular and a second printing was ordered in the fall. A number of organizations that prepare exams for the National Council of Engineering Examiners have asked for copies and permission to use the Guide as the basis for one of their own. A nominal charge of $10 covers the cost of producing and mailing the Guide. New Junior Members have the opportunity to obtain the Guide when they make a book selection from the Mudd Fund Free List. A flyer on the registration process was prepared for distribution at meetings.

Robert W. Piekarz, Committee Chairman, and/or staff members have attended three NCEE meetings: The PEAC/UEQ meetings at Clemson, SC, in April and October and the NCEE Annual Meeting in San Francisco in August. Highlight of the latter meeting was staging of a "mock trial" to demonstrate the potential legal liabilities of a poorly managed examination, including grading.

A function of the Committee is to monitor registration developments throughout the country as they may pertain to the Mining/Minerals examination. In 1984 Illinois switched to administration of the national examination for the first time, from a state-conceived exam. This means that all candidates for registration from all states are taking the same national exam in their discipline. Pennsylvania deactivated its registration board in June when the governor vetoed a funding bill. The board was restored in September when the legislature restored the funding. However, this action was taken too late to permit full administration of the 1984 exam in October to all candidates. Some candidates went to neighboring states to take the exam.

The status of registration in California has been in flux for several years, with at least one complete review of the registration laws and title schedule (California requires registration by certain title disciplines, i.e., civil engineering; mining/minerals is not one of the titles). In 1984 California requested that NCEE give the Book 1 (major disciplines) exams only once a year, rather than in April and November. The state board also requested that examination booklets be given the candidates immediately upon completion of the exam. The state also has told NCEE that, if examinations based upon practical experience rather than academic training cannot be developed, the California Board will withdraw from NCEE by 1986. The NCEE Western Region, during the meeting at which the California demands were given, voted to recommend to NCEE that the professional engineering examination questions be released in a reasonable amount of time after the administration of the exam. The California Board members were invited to be observers at all committee meetings during the NCEE Annual Meeting in August.

HONORS AND AWARDS ACTIVITY

The following honors and awards were selected for presentation during 1984 and 1985:

AIME Honorary Member
John F. Havard
Robert H. Merrill

Coal Division Best Paper Award
Richard A. Allwes
Jeffrey M. Listak

Howard N. Eavenson Award
William N. Poundstone

Antoine M. Gaudin Award
Milton E. Wadsworth

Hal Williams Hardinge Award
James C. Bradbury

Daniel C. Jackling Award
Anthony R. Barringer

1984 Henry Krumb Lecturer
Frederick B. Henderson, III

Robert Earll McConnell Award
Robert W. Bartlett

Mineral Economics Award
John E. Tilton

Robert Peele Award
Jeffrey G. Clevenger

Publications Board Awards

Leonard G. Austin
Charles O. Brawner
Colorado Section
Charles H. Dowding
John A. Herbst
Leonard Jacob, Jr.
Richard R. Klimpel
Peter T. Luckie
Subhas G. Malghan
William G. Pariseau
Madan M. Singh
Anthony B. Szwilski

Erskine Ramsay Medal
Robert H. Quenon

Charles F. Rand Award
Ralph E. Bailey

Robert H. Richards Award
Alban J. Lynch

Rock Mechanics Award
Z. T. Bieniawski

Arthur F. Taggart Award
Frank F. Aplan

Young Engineer Award (Coal)
James W. Parkinson

SME Distinguished Member Award

Leonard G. Austin
John H. Bassarear
Stefan H. Boshkov
Edward F. Fitzhugh, Jr.
John E. Frost
Thomas A. Henrie
Walter R. Hibbard, Jr.
John R. Hoskins
Louis Kuchinic, Jr.
E. Minor Pace
Richard J. Robbins
James V. Thompson
Stewart R. Wallace
Sheldon P. Wimpfen

AIME LEGION OF HONOR
(50 Years of Continuous Membership)

The following 65 SME-AIME members will become members of the AIME Legion of Honor during 1985:

Paul W. Allen
David D. Baker
Neil S. Beaton
William Bellano
Robert A. Blake
Charles C. Boley
James R. Caldwell
Donald F. Campbell
Vicente Cisneros
Strathmore R. B. Cooke
James D. Crawford
David H. Davis
George H. Deike, Jr.
Theodore A. Dodge
Walter E. Duncan
Floyd W. Erickson
J. McLaren Forbes
Charles G. Foreman
Guilford B. Gaylord
W. H. Goodrich
Edwin A. Goranson
Klem B. Gross
Dwight L. Harris
John F. Havard
Charles F. Herbert
Charles V. O. Hughes
Alex B. Jackson
Raymond W. Jenkins
Fred E. Johnson
Roy A. Johnson
Sheldon Jones
John C. Lokken
A. C. Melting
Henry T. Mudd
Roland B. Mulchay
Richard S. Newlin
Telfer E. Norman
L. Arthur Norman, Jr.
Philip D. Pearson
John Peperakis
William T. Pettijohn
George M. Potter
George R. Powe
Bailey E. Price
David D. Rabb
Robert H. Ramsey
Robert H. Raring
Fred P. Reinhard
Joe W. Ribotto
Kenyon E. Richard
William J. Rundle
F. A. Rutledge
Floyd S. Sanders
Ernest M. Spokes
Keith C. Stansmore
Franklin E. Stasch
Maynard M. Stover
Henry F. Warden
Harry V. Warren
Lendall P. Warriner
Robert J. Westwood
Glenn S. Wilder
Clark L. Wilson
L. Kenneth Wilson
Lester G. Zeihen

EDUCATION

During 1984, actions were taken on recommendations of the Educational Activities Committee of the Long-Range Planning Commission. An Education Coordinator was added to the SME-AIME staff in May of 1984; the Education Board was renamed the Council of Education effective the date of separate incorporation; management of short course activities was transferred to the Meetings Department; and a Committee on Educational Quality was formally established.

EDUCATION BOARD/COUNCIL OF EDUCATION

The Education Board continued to oversee the activities of its committees--Continuing Education, Education Planning, Educational Issues, Student Member Affairs--and to respond to the concerns expressed at the Educators' Forum. As in previous years, it ranked the proposals of SME-AIME members for Engineering Research Initiation Grants during 1984-1985 and submitted them in rank order to the All-Institute Committee of AIME for final evaluation with the other Societies' proposals.

In April of 1984, an additional contribution of $500 to the Education Board Fund was received from Consolidation Coal Company bringing the fund's total to $1,500 plus interest. The Education Board approved a proposal to utilize this fund to pay a portion of the travel expenses of SME-AIME Ad Hoc Accreditation Visitors when they participate as observers on Accreditation Board for Engineering and Technology (ABET) visits. The proposal was subsequently approved by the SME-AIME Board of Directors at its meeting on October 23, 1984.

Continuing Education Committee

The transfer of short course activities to the Meetings Department freed this committee to pursue alternative approaches to continuing education. Several options were introduced at the Fall Meeting. Of particular interest were microcomputer users groups. Background information for a more in-depth discussion of this option was to be compiled prior to the next meeting of the Committee.

At the Annual Meeting, the Education Board endorsed the concept of Correspondence Courses and approved the pursual by SME-AIME of an offer made by The Pennsylvania State University. A Memorandum of Agreement establishing a working relationship between SME-AIME and The Pennsylvania State University for the purpose of developing an education program designed to meet specific needs of SME-AIME members was approved by the Committee and subsequently the Education Board at the 1984 Fall Meeting. It is being recommended to the SME-AIME Board of Directors.

Education Planning Committee

The primary responsibilities of this committee continue to be the examination of problems that exist in minerals education and the recommendation of actions appropriate for SME-AIME.

As a result of the Committee's concurrence that a stronger liaison between academia and industry was necessary, cooperation in education matters between the American Mining Congress (AMC) and SME-AIME has been pursued. A communication link between the two organizations has been established for the purpose of discussing mutual items of interest and coordinating joint efforts. Several projects are currently being activated. The AMC is in the process of identifying representatives of industry available to speak to minerals schools; by submitting a request to the SME-AIME Education Coordinator, it is now possible for the minerals schools to obtain lists of regional mining companies that may be contacted by graduating scholars; and arrangements are being made for SME-AIME to offer a short course prior to the AMC spring meeting in Pittsburgh.

Coordinated professional society action to improve pre-college mathematics and science education has been the focus at several meetings of representatives of science, mathematics, engineering and education professional societies. At the present time, a staff representative is attending the meetings and the Education Planning Committee is periodically reviewing the activity as it relates to SME-AIME.

During a discussion of recommendations made by the SME-AIME Long-Range Planning Commission, attention was directed to the recommendation that the Society become more international in its activities and membership. The Education Planning Committee decided to recommend to all committees coming under the guidance of the Education Board/Council of Education that they consider internationalization and its possible impact on the Society and, specifically, its educational activities.

Educational Issues Committee

The accreditation process continued to be of primary concern to this committee during 1984.

Program criteria for mining engineering technology programs were developed by the SME-AIME representative on the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET) and circulated among educators responsible for implementation of mining engineering technology programs. Suggested additions and changes were incorporated and the revised program criteria were submitted to the Committee at the Fall Meeting where additional changes were made. Following this revision, the program criteria were approved by the Committee for further distribution and input.

An informal document to aid Ad Hoc Accreditation Visitors in evaluating programs is being revised. The initial focus is on interpreting ABET-approved general and program criteria. The interpretations will be reviewed and discussed at the 1985 Annual Meeting.

It was strongly recommended that newly elected Ad Hoc Accreditation Visitors participate as observers on ABET visits before being assigned to accreditation teams. Two of the four newly elected Engineering Accreditation Commission visitors did take advantage of this learning opportunity. The approval of the SME-AIME Board of Directors to utilize the Education Board Fund to pay a portion of the travel expenses should encourage more newly elected visitors to participate as observers.

Student Member Affairs Committee

A Career Planning Workshop was presented at the Fall Meeting. The papers were compiled in a booklet and made available for a nominal fee with the aid of publication support by the Seeley W. Mudd Fund of AIME. The success of the Workshop reconfirmed the Committee's decision to make this an annual offering. The next workshop is being planned for the 1985 Fall Meeting in Albuquerque, New Mexico.

Also reviewed were the career-guidance materials made available through SME-AIME. The leaflets are being evaluated to determine what needs to be added, deleted and/or revised. The booklet, "Careers for Engineers in the Minerals Industry," is being prepared for a reprint.

The SME-AIME Guide to Minerals Schools was updated in January. It contains school staff information and statistics on enrollment and degrees conferred. It will be updated again in January of 1985.

The SME-AIME Board of Directors acted on several recommendations of the Education Board directly related to student activities. The first concerned the Annual Intercollegiate Mining Contest. It was recommended 1) that SME-AIME officially recognize the Annual Intercollegiate Mining Contest and that participating Student Chapters be allowed to use their travel allowance to attend; and 2) that SME-AIME present a certificate to the winning Chapter and that the award be made retroactive to the Contest's origin in 1979. It was voted not to approve the recommendation. An alternate recommendation was made to present certificates to the previous winners (1979-1984). It was voted to approve the alternate recommendation. The second recommendation receiving Board action was that the Student Chapter travel allowance be increased from 2¢ to 5¢ per mile with a ceiling of $300 per academic year. It was voted to approve the recommendation for a period of one year beginning December 1, 1984.

Two new Student Chapters were established during 1984. One Student Chapter was organized at King Abdul Aziz University in Jeddah, Saudi Arabia; the other Student Chapter was established at The University of Texas at Dallas. The organization of three additional Student Chapters is in progress. The institutions involved are Boise State University, Morehead State University, and Ohio University.

Two student contests were sponsored by SME-AIME during 1984, the SME-AIME Outstanding Student Chapter Contest and the SME-AIME Outstanding Student Paper Contest. Nineteen Student Chapters entered the 1983-1984 SME-AIME Outstanding Student Chapter Contest. Nine students entered the SME-AIME Outstanding Student Paper Contest; four papers were submitted in the Undergraduate Division and five papers were submitted in the Graduate Division. All contest entries were judged by members of the Student Member Affairs Committee. The winners will be presented cash awards at the 1985 SME-AIME Annual Meeting in New York City. The judges felt that there was not an entry submitted in the Undergraduate Division of the Outstanding Student Paper Contest that could be classified as 'outstanding'; therefore, that award will not be presented.

1983-1984 STUDENT CONTEST WINNERS

Outstanding Student Chapter

Winner: University of Alabama Student Chapter

1st Runner-Up: University of Arizona Student Chapter
2nd Runner-Up: Cooney Mining Club,
New Mexico Institute of Mining and Technology
3rd Runner-Up: West Virginia University Student Chapter of AIME

Outstanding Student Paper-Graduate Division

"A Mathematical Model for Predicting Dust Concentrations in Mine Airways"
Ragula Bhaskar, The Pennsylvania State University-University Park

Educators' Forum

The Educators' Forum continued to be well attended by minerals schools educators and people from industry interested in education.

At the Annual Meeting, Jack E. Thompson, Chairman of the American Mining Congress (AMC) Committee on Mining and Minerals Education, concluded his presentation with the statement that industry needed to form a basis of cooperation with educators. This stimulated a great deal of discussion which in turn moved the Education Board to action. By the Fall Meeting, a communication link had been established between the AMC and SME-AIME and plans were being made for future cooperation. The SME-AIME Board of Directors approved cooperation with the AMC on education matters at its meeting on October 23, 1984.

Additional topics addressed at the Educators' Forum included employment opportunities and the effect they might have on minerals schools and their programs, the impact of high technology, and issues relative to accreditation.

ACCREDITATION BOARD FOR ENGINEERING AND TECHNOLOGY (ABET)

The ABET activity of greatest interest to SME-AIME during 1984 dealt with proposed criteria changes. The proposed General Criteria and Program Criteria of both the Engineering Accreditation Commission (EAC) and the Technology Accreditation Commission (TAC) were approved by the ABET Board of Directors on first reading and circulated for comment to all concerned publics. Editorial changes were made by the EAC and TAC at their Annual Meetings and the proposed General Criteria and Program Criteria were referred back to the Board for final approval. The criteria were approved by the ABET Board of Directors at its meeting on October 26, 1984, and will be applied by the Commissions for accreditation actions during the 1985-86 academic year and following years.

Included in the program criteria are those for geological engineering programs and mining and similarly named engineering programs. A preview of the approved General Criteria and Program Criteria will be presented at the 1985 SME-AIME Annual Meeting.

A continuing concern of ABET has been the quality and preparedness of the ad hoc accreditation visitors. Societies have been encouraged to develop written documents to aid their visitors in the evaluation of engineering and engineering technology programs. The ABET Board of Directors has asked the Participating Bodies to submit 'advice to ad hoc visitors' documents to the appropriate commission for review and approval.

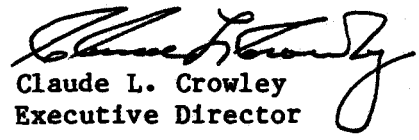
The Engineering Accreditation Commission took action on 403 programs during the 1983-84 accreditation cycle. Nineteen of the programs came under the auspices of SME-AIME. The Technology Accreditation Commission took action on 121 programs during the same period of time; one program was in the area of mining engineering technology.

At the close of 1984, a total of 51 programs coming under the guidance of SME-AIME were accredited: fifteen (15) geological engineering, two (2) geophysical engineering, three (3) mineral engineering, two (2) mineral processing engineering, nineteen (19) mining engineering, and five (5) mining engineering technology programs.

COMMITTEE ON EDUCATIONAL QUALITY

As a result of a recommendation made by the SME-AIME Long-Range Planning Commission, a Committee on Educational Quality was established. The purpose of the Committee is to monitor, assess, and report to the Executive Committee on pertinent trends and the relative health of minerals-related engineering education in the United States and to work with the Education Coordinator in service to minerals schools.

Respectfully submitted,



Claude L. Crowley
Executive Director

REPORT

of

THE METALLURGICAL SOCIETY OF AIME

1984

TMS-AIME had a year of significant expansion in 1984. Society services and programs were enlarged along with an increase in staff to provide the necessary support. Considerable effort and attention was given to the reorganization of AIME and the planning for the separate incorporation of TMS. Highlights of the expansion during 1984 included:

* Record income for the year of $2,133,000.
* Formation of a Publications Committee to oversee all Society publications.
* Establishment of a JOM Advisory Committee representing all the technical interests of the membership.
* Introduction of four new features in JOM:
  - University Focus
  - Focus on Research
  - Forum
  - TMS News (the popular Society Newsletter)
* Improved subscription levels for Journal of Electronic Materials to 1,200+.
* Timely publication and distribution of Met Trans within the first 10 days of each month.
* Record book sales reaching 11,151 volumes sold for revenue of $348,000.
* Increased level of activity within the book production department with 18 new books published in 1984; 14 books in various stages of production, and 11 books in the review process.
* Expanded book marketing strategies with special focus on international sales.
* A record 273 technical sessions containing 1,700 papers presented at our five meetings.
* Attendance of some 4,000 registrants at TMS sponsored meetings.
* A record number of membership applications approved totalling 1,569 with 979 new student applications received, for a grand total of 2,548 new members for the year.
* Recruitment of graduating college seniors improved for the fourth straight year to a record breaking 808.
* Member Involvement Survey identified members' technical interests, evaluated the importance of specific services and identified ways to involve members in the activities of the Society.

* New Corporate Sponsor Program established to build a consortium of organizations to support the advancement of metallurgical and materials technology.
* New membership pins were designed to compliment our membership plaques and serve as a professional way for members to show off their affiliation with TMS.
* Two new Local Sections formed in Denver and Pittsburgh with one new Student Chapter at Trinity College in Dublin, Ireland, bringing to 44 the number of TMS Student Chapters.
* New Career booklet written and published.
* Four new Awards established recognizing achievement in the areas/fields of Light Metals, Leadership, Application to Practice in metallurgy and materials, and Educator.
* Long Range Planning Committee conducted and completed two significant studies. The Name Change Task Force recommended no change in the name of the Society, and the Meetings Task Force presented several recommendations on the number, technical programs, and format for our meetings. They also endorsed a Regional meeting concept to be implemented in 1985.
* Three additional staff persons in the positions of Manager Administrative Services; Copy Editor; and Administrative Assistant for Meetings.

TMS-AIME plans to be incorporated during 1985 upon receipt of its 501-C-3 federal tax classification. In his letter to the membership, 1985 President, Peter Tarassoff, stated, "By separately incorporating, the Societies are preparing to meet new challenges and opportunities, while ensuring the continued strength of AIME. In a sense, AIME's family has come of age." In 1985, the 114th year since the founding of AIME, the Society will, in some respects, have a new beginning but our future for the next 114 years is ensured by the loyal, dedicated members' names who fill the Membership Directory of THE METALLURGICAL SOCIETY, INC.

THE METALLURGICAL SOCIETY OF AIME

STATEMENT OF INCOME AND EXPENSE

YEAR END, NOVEMBER 30, 1984

REVENUE	
Member dues and Fees	$328,642
Publications: Books, Paper Selections, Proceedings	407,237
Journal of Metals	332,315
Journal of Electronic Materials	81,984
Metallurgical Transactions	551,412
Interest and Dividends	16,670
Meetings: AIME Annual Meeting	205,235
Offshore Technology Conference	8,738
Electronic Materials Conference	41,860
Fall Meeting	115,020
Extractive Fall Meeting	35,837
Other	9,010
TOTAL REVENUE	$2,133,960
EXPENSE	
AIME Corporate Headquarters	$ 6,218
Society Headquarters & Business Services	221,677
Publications: Books, Paper Selections, Proceedings	346,786
Journal of Metals	423,601
Journal of Electronic Materials	59,305
Metallurgical Transactions	512,171
Member Services	176,773
Meetings: AIME Annual Meeting	165,512
Offshore Technology Conference	2,202
Electronic Materials Conference	41,571
Fall Meeting	94,523
Extractive Fall Meeting	37,665
Other	26,524
Federation Support	18,187
TOTAL EXPENSE	$2,132,715
REVENUE OVER EXPENSE	$ 1,245
TOTAL TMS-AIME RESERVES	$ 400,402

THE METALLURGICAL SOCIETY OF AIME

BALANCE SHEET AS AT NOVEMBER 30, 1984

ASSETS

	1984
Operating Fund:	
Cash and temporary cash investments	$55,290
Accounts receivable	244,011
Inter-Society receivable	4,510
Inventories of publications	211,653
Investments, at cost plus accrued interest	
Property, building and equipment	
Land	24,450
Buildings	242,580
Equipment, furniture and fixtures	27,414
TOTAL	$809,908
Prepaid expenses, deferred charges and other assets	77,982
TOTAL OPERATING FUND	$887,890

LIABILITIES AND FUND BALANCES

Operating Fund:	
Accounts payable and accrued liabilities	$ 90,464
Inter-Society payable	1,161
Membership dues received in advance	62,100
Other deferred credits, principally publications and meetings	128,227
Mortgage loan payable	82,085
Loans payable to endowment fund plus accrued interest	123,451
Surplus - unrestricted	361,281
TOTAL OPERATING FUND	$848,769
Endowment, quasi-endowment and custodian funds:	
Custodian Funds (unrestricted)	39,121
Total endowment, quasi-endowment and custodial funds	39,121
Property Fund	$887,890

PUBLICATION ACTIVITIES

PUBLICATION COMMITTEE

The newly formed TMS Publications Committee met for the first time at the 1984 TMS Fall Meeting in Detroit. The purpose of the Committee is to address long-range publication issues including the establishment of new publications and/or new forms of publication; the role/overlap of JOM archival, journals, books, etc.; the quality and utility of TMS publications for members and the profession-at-large; handling of publication issues assigned to the Committee by the TMS Board of Directors.

JOURNAL OF METALS

In FY 1984, the Journal of Metals published 864 editorial pages, representing an average issue of 72 pages. This size accommodates diverse technical coverage, while maintaining a reasonable member subsidy for publication expenses. An increase in extrinsic Journal revenue is needed to continue this level of production in the face of rising costs. The page distribution is examined below:

Editorial	Pages	Actual%	Plan%
Physical/Mechanical			
Overviews	112	13%	8%
Research Papers	41	5%	7%
Conference Reviews	15	2%	5%
Applied Technology	3	1%	5%
Total	171 pages	21%	25%
Extractive/Process			
Overviews	88	10%	8%
Research Papers	88	10%	7%
Conference Reviews	34	4%	5%
Applied Technology	69	8%	5%
Total	279 pages	32%	25%
Features			
Economic	39	4%	4%
GEM	18	2%	4%
Professional Affairs	22	3%	4%
Research/University Focus	11	1%	3%
Total	90 pages	10%	15%
Departments			
News, Business Brief, New Products, Helpful Lit	59	7%	
Meetings Calendar	87	10%	
Forum	11	1%	
Buyer's Guides	19	2%	
TMS Newsletter	37	4%	
TMS (House) Promotion	53	6%	
Misc. (Covers, Contents, Indices, etc.)	58	7%	
Total	324	37%	33%

In addition, the Journal published a 136 page membership directory and 248 pages of TMS-AIME meetings programs in 1984.

Editorially, the Journal of Metals moved to position itself as a hybrid publication providing both quality technical coverage and current information of professional interest. To accomplish this, the Journal initiated structural changes:

1. Annual survey to assess popular interests and invite reader criticisms (15% response in 1984).
2. Journal of Metals Advisory Committee to represent the Technical Committee interests in solicitation and review of technical articles.
3. New features including University Focus, Focus on Research, Forum and the popular TMS News.
4. Expansion of editorial format to promote strategic objectives. The Journal now accepts four distinct types of technical articles: the overview to introduce topics and provide references, the traditional research paper, the short applied technology article to entice greater commercial participation, and the conference review to report on symposia activities. Ideally, all these formats relate to the monthly editorial topic, allowing a wider variety of competence/interest levels to enjoy the magazine.
5. More regular appearance of Feature material that appeals to professional interests (Economics, GEM, Education, etc.)

The 1985 editorial calendar is based on the reader survey preferences and the Advisory Committee recommendations.

Technical Emphasis Calendar

Issue	Materials/Physical Metallurgy	Process/Extractive Metallurgy
January	Fracture and Failure Analysis	Electrolytic Processes
February	Materials Characterization and NDE	Environmental Design
March	Materials for Saline Environments	Iron and Steelmaking
April	Refractory Metal Fabrication	Extractive Metallurgy Review
May	Electronic Materials	Smelting-Roasting
June	Composite Materials for Industrial Application	Process Mineralogy
July	Corrosion	Developments in Hydrometallurgy
August	Rapid Solidification - Powder Metallurgy	Lead, Zinc and Tin Technology Update
September	Heat Treating Process Developments	Metals Casting Practice
October	Nuclear Materials Update	Deformation Processes
November	Alloy Development Update	Aluminum Extraction Update
December	Advanced Materials Technology	Advanced Extractive Metallurgy

Advertising

Net advertising revenue for FY1984 was $132,280, which shows a modest increase over FY1983. Revenue from Classified and Display advertising has increased 25% over the last two years. Advertising rates have not increased since 1982.

JOURNAL OF METALS

COMPARATIVE ADVERTISING STATISTICS

	FY1982		FY1983		FY1984	
	Pages	Income	Pages	Income	Pages	Income
Display	24 1/3	$ 38,259	46	$ 46,816	40	$ 59,957
Classified	30 2/3	50,837	35	42,664	40	58,449
House/Society Awareness	58	19,104	71	22,248	44	13,874
	113	$108,200	152	$129,728	124	$132,280

Circulation and Subscription Promotion

Total income from non-member subscriptions in FY1984 was $168,949; 1983 income was $163,262. Subscription rates did not increase, however, the subscription agency discount was lowered from 20% to 10%. This amounted to an additional $12,000 revenue. Back issue sales totaled $1,892.

CIRCULATION STATISTICS (Non-Member)

	1982	1983	1984
New Subscriber:			
Domestic	106	100	65
Foreign	188	175	134
Renewing Subscriber:			
Domestic	632	673	675
Foreign	999	1017	1009
Other AIME Subscribers	940	877	717
Bulk Subscribers			
Domestic	62	70	72
Foreign	44	24	22
Total	2971	2936	2694

The decrease in subscriptions was attributed to non-renewing subscribers through the Society of Mining Engineers and through subscription agencies who supply foreign corporations.

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.

JOM Reprints

Total income from author reprints of JOURNAL OF METALS articles reached $17,641. This compares to $14,316 in 1983, and $10,818 in 1982. Revenue from reprints has increased over 38% in the last two years.

List Rental

As an additional source of income, The Metallurgical Society now offers direct mail lists for sale to qualified buyers. The service began in 1983 and generated $8,835. In 1984, income totaled $11,553. The service is advertised in SRDS Direct Mail List - Business Lists.

JOURNAL OF ELECTRONIC MATERIALS

FY1984 was the third 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. Total income from subscriptions in 1984 was $73,528. Subscription rates for 1984 remained at the 1983 rate; a total of 1018 pages were printed in 1984, as opposed to 1071 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 $6,478 compared to $6,955 in 1983 and $6,426 in 1982. Sales from back issues and single issue sales amounted to $1,977 in 1984.

JOURNAL OF ELECTRONIC MATERIALS

CIRCULATION STATISTICS

	1982	1983	1984
New Subscriber:			
Domestic	517	384	385
Foreign	264	136	107
Renewing Subscriber:			
Domestic	-	321	472
Foreign	-	199	238
Bulk Subscribers:			
Domestic	29	27	29
Foreign	-	-	-
Total	810	1067	1231

Total income generated from FY1982 - $49,814
Total income generated from FY1983 - $62,606
Total income generated from FY1984 - $73,528

METALLURGICAL TRANSACTIONS A & B - REPORT FOR 1984

1984 METALLURGICAL TRANSACTIONS A
Technical Papers Published

	No. of TPs	No. of Pages	Total Pages
A Sub+	218	2073	
B Sub++	0	0	
Total	218	2073	2073

Communications Published

A Sub+	40	109	
B Sub++	0	0	
Total	40	109	109

Title Pages	12
Table of Contents, etc.	45
Blank Pages	114
Total Pages in 1984 MET TRANS A	2353*

1984 METALLURGICAL TRANSACTIONS B
Technical Papers Published

	No. of TPs	No. of Pages	Total Pages
A Sub+	0	0	
B Sub++	78	674	
	78	674	674

Communications Published

A Sub+	0	0	
B Sub++	12	17	
	12	17	17

Title Pages	4
Table of Contents, etc.	16
Blank Pages	42
Total Pages in 1984 MET TRANS B	753

*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	218	2073	
B Sub++	78	674	
Total	296	2747	2747

Communications Published

A Sub+ and ASM	40	109	
B Sub++	12	17	
Total	52	126	126

Title Pages	16
Table of Contents, etc.	61
Blank Pages	156
Total Pages in 1984 METALLURGICAL TRANSACTIONS A and B	3106

*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.

METALLURGICAL TRANSACTIONS

Page Charges and Author Examination

The following is a breakdown of articles appearing in Metallurgical Transactions in 1984.

Metallurgical Transactions A

Paid articles:

U.S. author	169	University	125
Canadian/Mexican author	14	Corporation	46
Foreign author	32	Government	44
	215		215

Waived articles:

U.S. author	14	University	30
Canadian/Mexican author	1	Corporation	6
Foreign author	23	Government	2
	38		38

Total billed (paid articles)	$122,413.00
Total page charges waived	23,025.00

Metallurgical Transactions B

Paid articles:

U.S. author	30	University	59
Canadian/Mexican author	15	Corporation	7
Foreign author	24	Government	3
	69		69

Waived articles:

U.S. author	8	University	15
Canadian/Mexican author	-	Corporation	3
Foreign author	10	Government	-
	18		18

Total billed (paid articles)	$36,450.00
Total page charges waived	10,312.50

Metallurgical Transactions A and B

Total billed (paid articles)	$158,863.00
Total of waived articles	33,337.50

PRODUCTION

Journal of Metals continues to be printed on a mini-web. The process provides flexibility in design and production for editorial and advertising at a lower cost than for sheet-fed printing. (The number of pages printed at the same time and the speed with which they are printed account for the most savings.)

Manufacturing costs, again, rose slightly with paper and presswork averaging an approximate 7½% more than 1983. Composition costs that include typesetting, mechanical artwork, negatives, and stripping also rose slightly to account for an average increase of about 2%. The rise in composition costs are the result of an increase in the number of pages, the amount of original artwork, and materials costs.

Content of the Journal in 1984 breaks down as follows:

Editorial pages	755
Advertising pages	124
Program pages	211
Newsletter pages	42
	1,132 total pages

Editorial		Programs	
Technical Articles	534	Fall Extractive	17
Departments	220	Fall	78
	754 total pages	Annual	116
			211 total pages
Advertising		Newsletter	
Display	40		42 total pages
Classified	40		
House	44		
	124 total pages		

PROGRAM ABSTRACTS

Program abstracts for the 1984 Fall Meeting appeared in the July issue, the Fall Extractive Meeting in the August issue and the Annual Meeting in December's issue. Total number of program pages 211.

NEWSLETTER

Beginning in the June issue of the Journal, a new addition was the TMS Newsletter. (The AIME Newsletter insert was omitted at the end of 1983). This insert appeared in every issue there-after and served as an all encompassing news department. The Newsletter featured editorial comment, meeting updates, nomination of Board of Directors and Officers, committee reports, bylaws changes, news items, new members, and metal leaders. This new addition to the Journal accounted for 42 pages.

DIRECTORY

The Membership Directory was again published as a separate volume in addition to the Journal and was available to members only. It emphasized TMS and AIME Honors and Awards, membership activities/services, and TMS/AIME sponsored meetings in addition to the alphabetical and geographical member listings.

BOOKS

Book Sales

Once again book sales topped the previous year's figures. For FY 1984, 11,151 books were sold totaling $347,658.00, an increase of $19,284.00 over FY 1983. 85% of the sales were from mail/phone orders received at the TMS headquarters. The remaining 15% of the sales was from attendees at the TMS meetings and the Seeley W. Mudd Fund utilized to promote membership in TMS with graduating seniors and graduate students.

BREAKDOWN OF BOOK SALES

Source	Income	No. of books sold
Mail/phone orders	$297,401.00	8737
Annual Meeting	34,541.00	1265
Fall Meeting	5,207.00	281
Fall Extractive Meeting	5,666.00	122
Seeley W. Mudd Fund	4,843.00	746
	$347,658.00	11,151

Interestingly, of the 15% sales received from meetings and the fund, 10% is attributed to the Annual Meeting. Also, of the $34,541.00 received from the Annual Meeting sales, $23,303.00 was attributed to selling two prepublications (books that are available in conjunction with the meeting.) The two books are:

Book	Income	No. of books sold at meeting
Light Metals 1984	$14,555.00	404
Precious Metals	$ 8,748.00	314
	$23,303.00	718

Cognizant of the benefits to all TMS editors, authors, and conference attendees, the TMS Publication Committee will be addressing the issue of the infrequent number of prepublications.

Additional revenues for books were received from postage and handling ($12,987.00). Included in this figure is the postage and handling received from the Seeley W. Mudd Fund ($2611.00).

Excluding sales from the meetings and Seeley W. Mudd Fund, TMS averaged approximately $25,000.00 a month in book sales. The distribution book sales has remained relatively the same as last year:

AIME Members - 37%
Nonmembers - 21%
AIME Student - 15%
Bookbuyers - 27%

Book Production

Eighteen (18) new titles were published by TMS in FY 1984. They were:

Aluminum-Lithium Alloys II, edited by T.H. Sanders, Jr. and E.A. Starke

Anodes for Electrowinning, edited by D.J. Robinson and S.E. James

Beta Titanium in the 1980's, edited by R.R. Boyer and H.W. Rosenberg

Case-Hardened Steels: Microstructural and Residual Stress Effects, edited by D.E. Diesburg

Embrittlement by Liquid and Solid Metals, edited by M.H. Kamdar

Embrittlement by the Localized Crack Environment, edited by R.P. Gangloff

Fatigue Crack Growth Threshold Concepts, edited by D. Davidson and S. Suresh

Topical Conference on Ferritic Alloys for Use in Nuclear Energy Technologies, edited by J.W. David and D.J. Michel

High Conductivity Copper and Aluminum Alloys, edited by E. Lind and P.W. Taubenblat

Light Metals 1984, edited by J.P. McGeer

Second International Symposium on Metallurgical Slags and Fluxes, edited by H.A. Fine and D.R. Gaskell

Modeling of Casting and Welding Processes II, edited by J.A. Dantzig and J.T. Berry

Niobium: Proceedings of the International Symposium, edited by H. Stuart

Nontraditional Methods in Diffusion, edited by G.E. Murch, H.K. Birnbaum, and J.R. Cost

Novel NDE Methods for Diffusion, edited by B.B. Rath

Phase Transformations in Ferrous Alloys, edited by A. Marder and J. Goldstein

Precious Metals: Mining, Extraction, and Processing, edited by V. Kudryk, D.A. Corrigan, and W.W. Liang

Superalloys 1984, edited by M. Gell, C.S. Kortovich, R.H. Bricknell, W.B. Kent, and J.F. Radavich

The following fourteen (14) books approved for publication in FY 1984, are in various stages of production and will be available in 1985. The six (6) *asterisked books will be available at the 1985 AIME Annual Meeting in New York.

*Applied Mineralogy-Second International Congress of Applied Mineralogy in the Minerals Industry, edited by W.C. Park, D.M. Hausen, and R.D. Hagni

Thirteenth International Conference on Defects in Semiconductors, edited by J.M. Parsey and L.C. Kimerling

*Fracture: Interactions of Microstructure, Mechanism and Mechanics, edited by J.M. Wells and J.D. Landis

*High-Temperature Alloys: Theory and Design, edited by J.O. Stiegler

*Light Metals 1985, edited by H.O. Bohner

*Physical Chemistry of Extractive Metallurgy, edited by V. Kudryk and Y.K. Rao

*Titanium Net-Shape Technologies, edited by F.H. Froes and D. Eylon

Advances in Titanium Welding, edited by W.A. Baeslack, III and D.F. Hasson

Computer Usage in Materials Education, edited by G.L. Liedl

Diffusion in Solids: Recent Developments, edited by G.E. Murch and M.A. Dayananda

High Temperature Corrosion in Energy Systems, edited by M.F. Rothman

Laser Processing of Materials, edited by K. Mukherjee and J. Majumber

Optimizing Materials for Nuclear Applications, edited by F.A. Garner and D.S. Gelles

Technology of Continuously-Annealed, Cold-Rolled Sheet Steel, edited by R. Pradhan

Eleven (11) additional book proposals have been submitted for publication and are going through the approval process. Final decisions and recommendations will be made at the 1985 AIME Annual Meeting in New York.

The Editor's Training Session held each TMS Fall and Annual Meeting, continues to be a success. These sessions cover the basics of obtaining permission to publish, Society policies on various aspects of publishing, organizing the symposium and establishing the proper timetable, practices in editing proceedings, procedures for indexing, and experiences of other editors in publishing symposium proceedings. The review of policies and procedures enable editors to deal confidently and efficiently with the problems encountered in organizing a symposium and publishing a proceedings.

Book Marketing

Always a challenge, the marketing of the book inventory was a major focus of attention for the Book Publishing Department. Several avenues were investigated and some programs were adopted. Of those plans already in motion or just recently initiated, some will produce immediate outcome while others will achieve long term results.

A. TMS Titles-This yearly catalog containing comprehensive information on all TMS titles, is a major promotion piece for the marketing of the books.

Since TMS members have the opportunity to purchase books at a considerable discount, this catalog is also a useful tool for the Membership Department in their recruitment program. Although book orders are received in various forms (purchase orders, phone calls, Journal of Metals reply cards, Titles Catalog order forms, etc.) it is difficult to evaluate the source of every customers orders. However, we have every reason to believe that of all of the forms of promotion, the TMS Titles reaches the most people.

B. Journal advertisement-The Journal of Metals and Metallurgical Transactions A and B are also primary sources for promoting TMS books. As well as placing monthly ads in these journals, we have made reciprocal agreements with other associations to promote publications to our respective audiences. Various journals worldwide frequently request copies of particular books to be reviewed.

C. Bibliographies/Abstracting services-By providing pertinent information to various organizations such as Chemical Abstracting Services, Institute of Scientific Information, Metals Information, Engineering Societies Library, Interdok Corp., Library of Congress, and Bowker's Books in Print, information about TMS publications is readily accessible worldwide.

D. In-house computer list/Customer file-Initiated in FY 1983, this project has proved quite sucessful. Each book is assigned a specific interest code depending upon the information it contains and the audience to whom it will appeal. Every time an order or inquiry is received, that customer's name is entered into the computer with that specific code relating to the book he ordered or inquired about. Additional codes are added with each subsequent order. As particular promotions are planned, all those customers with related interests will receive the appropriate information. Obviously, this customer list is growing each day as orders are received. It has proven to be a useful tool when directing our mail and promotions to interested customers and members rather than bombarding all those on our mailing list.

E. Direct mail-As each book is published, a self-mailer flyer is printed to distribute to the appropriate audience. Authors and editors are often asked for assistance in providing names of potential customers as well as utilizing the in-house customer file, our largest source of names. Flyers are often distributed at the meetings of other societies, as well as by interested corporations.

F. Distributors-After several meetings and month long negotiations, TMS has embarked on a new venture starting FY 1985. Neutrino, Inc., an importer and distributor of pure and applied science books, will promote and distribute TMS books to the Japanese market. Their promotion is selectively aimed at both the reader (universities, manufacturing companies, private and national research establishments) and the book trade, drawing from their 80,000 strong mailing list. As well as direct marketing, they will utilize head office and branch salesmen to follow up with "eyeball" selling approach. From October 1983 to October 1984, TMS sold approximately $16,000.00 worth of books to Japanese individuals, corporations, and universities. Projected sales will be 2-3 times that figure.

A similar agreement is being negotiated with a distributor in Australia. As of FY 1984, there are still some details to be confirmed.

G. International Marketing-This is the second year Clarke Associates has aided TMS in developing and improving sales in the Middle and Far East. Their services include:

1. Regular visits to South East Asia, the Far East, Australia, South Africa, and Nigeria, developing effective, revenue-producing contacts with key agents, booksellers, and librarians.

2. Detailed reports on agents, bookshops, local conditions, purchasing systems, promotional needs, and methods of dispatch.

3. Regular, systematic mailing program for our new titles which will generate orders.

4. Arranging, co-ordinating special exhibitions on our behalf and arranging participation in major events, i.e., bookfairs to promote titles.

As well as increased sales, Clarke Associates has introduced The Metallurgical Society and its publications to libraries, booksellers, and individuals we have not yet reached in our promotions. They were also very helpful in the selection of and negotiations with distributors in foreign countries.

Long Range Planning

The newly formed TMS Publications Committee met for the first time at the TMS Fall Meeting in Detroit, 1984. Among the issues discussed at that first meeting and topics on the agenda of future meetings are:

*Publication/distribution of non-TMS sponsored publications

*Exploration of additional avenues for promotion with consideration for cooperative ventures with other technical societies

*Establishment of criteria for Book Publishing Monitor and implementation

*Investigation of copyright laws and how they are interpreted by publishers, libraries, and documentation services

*Feasibility and desirability of producing books in advance of a conference

PAPER SELECTIONS

The Paper Selection Program is offered to every author presenting a paper at the TMS Fall or Annual Meeting. At no expense to the author, a printed version of his paper is made available to other metallurgical professionals. For FY 1984, the total revenue for Paper Selections was $11,212, a decrease of $917.00 from FY 1983. Of the 70 papers submitted, 65 were presented at the Annual Meeting. The revenue from the sale of 2835 copies was $6148.00. The remaining 15 were presented at the Fall Meeting and 75 copies were sold for a total revenue of $166.00.

The decrease in participation in the Paper Selection Program has been a concern for the past few years. For instance, of the 888 papers presented at the 1984 AIME Annual Meeting and the 534 papers presented at the 1984 Fall Meeting, there was a potential for 10-20 times more papers to be included in the Paper Selection Program. This takes into consideration those papers which will appear in a book and will never be a Paper Selection. Since this program is a definite benefit to the conference attendees as well as the metallurgical community, the TMS Publications Committee has taken a serious look at this problem. Suggestions have been noted and steps have been made to renew efforts to promote participation.

BOOK REPRINTS

An author contributing to the publication of a book has the opportunity to order reprints of his individual paper. The Book Reprint orders for FY 1984 have decreased since FY 1983 with no obvious explanation. This is another issue to be addressed by the TMS Publication Committee. With special efforts focused toward the benefits of reprints and special offers as used in the past, we anticipate increased orders from authors.

Year	Number of reprints	Total Income
1983	255	$41,123.00
1984	130	$36,658.00

MEETINGS ACTIVITIES

The Metallurgical Society of AIME sponsored or co-sponsored the following Technical Conferences during 1984.

113th AIME Annual Meeting
Hyatt Regency and Biltmore Hotels
February 26 - March 1, 1984
Los Angeles, California

16th Annual Offshore Technology Conference
Astrodomain
May 5 - 7, 1984
Houston, Texas

26th Annual Electronic Materials Conference
University of California, Santa Barbara
June 20 - 22, 1984
Santa Barbara, California

1984 TMS-AIME Fall Meeting (Physical Metallurgy)
Cobo Hall
September 16 - 20, 1984
Detroit, Michigan

1984 TMS-AIME Extractive and Process Metallurgy Fall Meeting
The International Slags and Fluxes Symposium
Hyatt Lake Tahoe
November 11 - 14, 1984
Lake Tahoe, Nevada

1984 was an active year in the TMS-AIME Meetings Department; in total, TMS-AIME sponsored 273 technical sessions and 1,700 technical papers were presented at TMS-AIME Meetings. Such activity drew over 3,940 to meetings in 1984.

BREAKDOWN OF PROGRAM ACTIVITY - NUMBER OF SESSIONS/PAPERS

COMMITTEE SPONSOR	1982 DALLAS	1983 ATLANTA	1984 LOS ANGELES
MS & AM Sessions/Papers/% of Total	46/238/30%	22/116/19%	20/98/13%
E & PM Sessions/Papers/% of Total	44/222/29%	30/145/26%	32/180/21%
JT. TMS/ISS Sessions/Papers/% of Total	9/57/6%	8/54/7%	13/77/9%
JT. TMS/SME Sessions/Papers/% of Total	8/44/5%	15/87/13%	18/88/12%
JT. TMS/ASM Sessions/Papers/% of Total	16/119/10%	11/62/9%	24/134/16%
JT. TMS/OTHER Sessions/Papers/% of Total	1/8/1% (SEG)	-	9/48/6% (IPMI)
ASM/MSD Sessions/Papers/% of Total	4/32/3%	5/25/4%	8/39/5%
TOTAL COMMITTEE Sessions/Papers/% of Total	128/720/84%	91/489/78%	124/664/82%
GENERAL ABSTRACT SESSIONS MS & AM Sessions/Papers/% of Total	24/189/15%	23/184/19%	25/205/16%
E & PM Sessions/Papers/% of Total	1/6/1%	3/21/3%	3/19/2%
TOTAL GEN. ABSTRACTS Sessions/Papers/% of Tatal	25/195/16%	26/205/22%	28/324/18%
OVERALL TOTAL	153/915	117/694	152/888
AVERAGE SESSION ATTENDANCE	44	36	45

NOTE:

1. Sessions/Papers/% of Total = Number of Sessions/Number of Papers/% of Total Sessions
2. MS & AM = Materials Science & Application of Metals
3. E & PM = Extractive and Process Metallurgy

16th ANNUAL OFFSHORE TECHNOLOGY CONFERENCE

The Metallurgical Society of AIME served as a Sponsor Society Organization to the 16th Annual Offshore Technology Conference (OTC). Smaller attendance was predicted versus other years because there was no exhibition, but 1984 OTC did draw over 2,700 registrants. The 1985 event will again feature the combined Technical Exhibition/Conference Format.

26th ANNUAL ELECTRONIC MATERIALS CONFERENCE

The University of California, Santa Barbara, hosted the Electronic Materials Conference for 1984. 601 people attended this conference sponsored by the TMS-AIME Electronic Materials Committee. The conference traditionally meets during the third week of June on a university campus alternating sites between the west and east coasts.

In response to an increased interest in the electronic materials field, the newly formed TMS Electronic Device Materials Committee provided programming in this area at the Annual and Fall Meetings.

BREAKDOWN OF ATTENDANCE

465 Full Conference Registrants
48 One-Day Registrants
88 Students
601 TOTAL

BREAKDOWN OF PROGRAMMING

15 Number of Sessions
120 Number of Papers

1984 TMS-AIME FALL MEETING FOR PHYSICAL METALLURGY

The TMS-AIME Fall Meeting was held in Detroit, Michigan, September 16-20, 1984, over the same dates as the 1984 American Society for Metals Metals Congress and Heat Treatment Show. A joint registration fee was negotiated between the Societies enabling registrants to attend both TMS and ASM technical sessions. TMS registrants were also invited to attend the Heat Treatment Show sponsored by ASM.

The attendance for 1984 was 1,170 which is slightly higher than 1983's figure of 1,068. This increase was due, in part, to joint registrants from both Societies and the attraction of the Heat Treatment Exhibit. Although there was a rise in attendance this past year, the number of Technical Sessions dropped considerably in comparison to 1983; 1984 Technical Sessions numbered 534 while 1983 listed 615. The reason for this was due to fewer joint TMS/ASM and ASM/MSD Sessions.

BREAKDOWN OF ATTENDANCE

CATEGORY	82 ST. LOUIS	83 PHILADELPHIA	84 DETROIT
Members	222	455	382
ASM Members	254	80	73
AIME/ASM Members	342	101	45
Nonmembers	87	51	44
Nonmember Authors	115	90	49
Student Members	196	274	59
Student Nonmenbers	29	17	14
Jt. Conf. Registrants			404
TOTAL	1,245	1,068	1,170
Surplus (Loss)	($9,000)	$14,725	$20,497

BREAKDOWN OF TECHNICAL PROGRAMMING

COMMITTEE SPONSOR	82 ST. LOUIS	83 PHILADELPHIA	84 DETROIT
MS & AM			
Sessions/Papers/% of Total	22/126/25%	13/88/15%	25/136/32%
E & PM			
Sessions/Papers/% of Total	- - -	- - -	- - -
Jt. TMS/ISS			
Sessions/Papers/% of Total	- - -	- - -	- - -
Jt. TMS/SME			
Sessions/Papers/% of Total	- - -	- - -	- - -
Jt. TMS/ASM			
Sessions/Papers/% of Total	28/189/32%	25/142/31%	15/95/19%
Jt. TMS/Other			
Sessions/Papers/% of Total	- - -	- - -	- - -
ASM/MSD			
Sessions/Papers/% of Total	4/17/5%	13/78/15%	4/20/5%
TOTAL COMMITTEE			
Sessions/Papers/% of Total	54/332/62%	51/308/61%	44/251/56%
GENERAL ABSTRACT SESSIONS			
MS & AM			
Sessions/Papers/% of Total	33/278/38%	33/307/39%	34/283/44%
E & PM			
Sessions/Papers/% of Total	- - -	- - -	- - -
TOTAL GENERAL ABSTRACTS			
Sessions/Papers/% of Total	33/278/38%	33/307/39%	34/283/44%
OVERALL TOTAL	87/610	84/615	87/534
AVERAGE SESSION ATTENDANCE	35	36	37

NOTE:

1. Sessions/Papers/% of Total = Number of Sessions/Number of Papers/% of Total Sessions
2. MS & AM = Materials Science and Application of Metals
3. ASM/MSD = American Society for Metals: Materials Science Division
4. E & PM = Extractive and Process Metallurgy

1984 EXTRACTIVE AND PROCESS METALLURGY FALL MEETING

This was the second meeting in extractive and process metallurgy. TMS-AIME sponsored the International Symposium on Slags and Fluxes held at Lake Tahoe, Nevada and Proceedings were available at the conference. Each extractive fall meeting will address a different topic. The interest in programming with specific "theme" topics has prompted TMS-AIME to sponsor two extractive and process metallurgy meetings in 1985, one focusing on Recycle and Secondary Metals and the other on Complex Sulfides.

The International Symposium on Slags and Fluxes registration was forecasted at 250 with an actual attendance of 144. However, all attendees felt that the Symposium was of high quality and included considerable participation from foreign countries.

BREAKDOWN OF ATTENDANCE

CATEGORY	83 SAN FRANCISCO	84 LAKE TAHOE
Members	274	96
Nonmembers	47	37
Students	9	10
Student Nonmembers	-	1
Complimentary	5	
	335	144
Surplus (Loss)	6,138	(1,828)

BREAKDOWN OF PROGRAMMING

Number of Sessions 13
Number of Papers 69

MEMBERSHIP ACTIVITIES

I. Membership Department

In 1984, this department included two full-time staff members and two part-time employees. The part-time employees served in various administrative capacities as needed and assisted the full-time staff members throughout much of the year. The Membership Department is currently responsible for the administration of each of the following areas:

- Membership Development
- Local Sections
- Student Affairs

II. Membership Development

A. Membership Recruitment - New member recruitment figures for 1984 set a record for the total number of new members recruited for a fiscal year. The Admissions Committee approved a total of 1,569 applications for Member, Associate and Junior membership in TMS-AIME. This total, when combined with the 979 student applications received for the same period, produced a grand total of 2,548 new members for TMS-AIME this year.

In 1984, particular attention was placed on the recruitment of Automatic Junior Members (graduating seniors and graduate students). The extra attention helped produce a record-breaking 808 Automatic Junior Members. This total represents a 156% increase over last year's record-breaking total of 518.

This year's outstanding success in recruiting Automatic Junior Members is a result of recent strides made in recruiting students to membership in TMS-AIME. The Automatic Junior Membership promotion truly highlighted 1984's recruiting efforts, and it would appear that TMS-AIME can expect much of the same success with this program in the future.

Exhibit 1:

1984 New Member Recruitment Statistics

1984 NEW MEMBERS

Technical Interest

Extractive & Process Metallurgy	325
Metal Science & Application of Metals	184
Economics	14
Materials Development	102
Basic Sciences	60
Materials Fabrication	76
	761
AJM's	808
TOTAL	1,569

MEMBERSHIP GRADE

New Member

Member	546
Associate	39
Junior	57
	642
	+119 Reinstatements
	761

Reinstatements

Member	105
Associate	2
Junior	12
	119

Joint TMS-AIME/ASM Students Recruited 979

Exhibit 2:

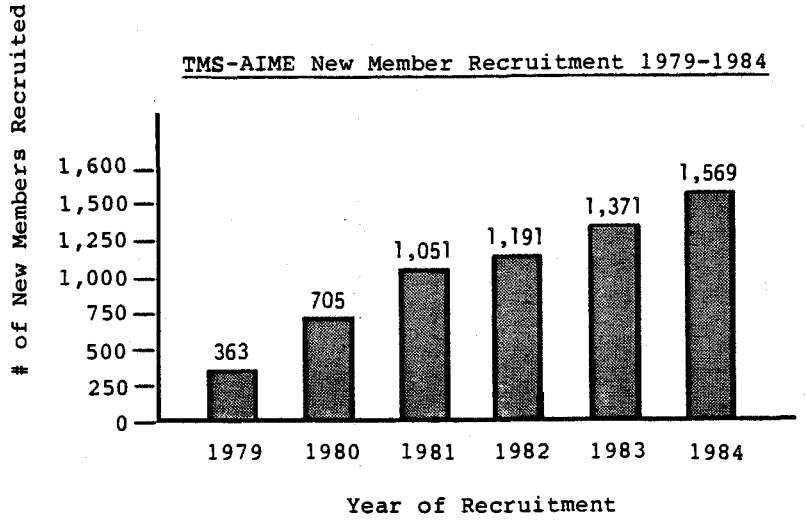


Exhibit 3:

TMS-AIME MEMBERSHIP STATISTICS 1979 - 1984

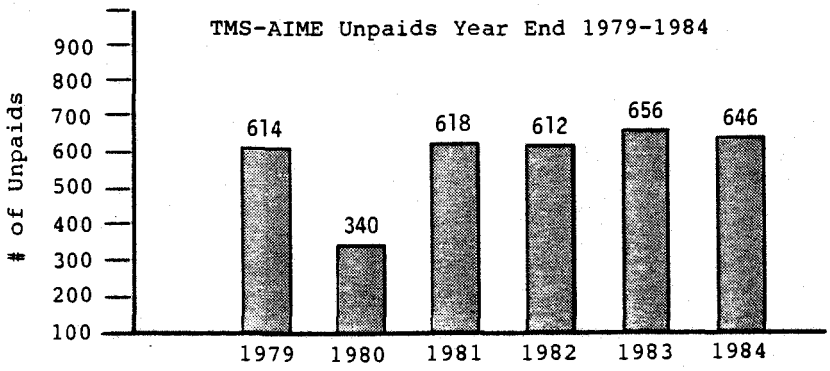
	1979	1980	1981	1982	1983	1984
E&PM	2,038	2,176	2,428	2,794	2,904	2,682
MS&AM	2,978	3,224	3,564	3,933	4,260	5,452
Education	55	51	49	49	41	16
Economics	48	60	71	92	114	51
Unclassified	616	582	552	401	528	457
Total Members	5,735	6,093	6,664	7,269	7,847	8,658
No. of Members Gained (Lost)	(74)	358	571	605	578	811
Percent Change	(.47)	7.15	7.56	9.39	9.88	6.00
Student	2,326	2,544	2,626	2,893	3,290	3,151
GRAND TOTAL	8,061	8,637	9,290	10,162	11,137	11,809

B. Membership Retention - With domestic and worldwide economic conditions continuing to plague the membership rolls of metals and materials engineering societies, TMS-AIME is very pleased to report a drop in the total number of year-end unpaids from 656 last year to 646 in 1984. This year's membership retention program included a redesigned dues invoice, two additional dues billings, a more efficient address update system, and a telemarketing program

directed at contacting delinquent domestic members. The telemarketing program was extremely successful in encouraging some 40 members to retain their memberships.

Membership retention is essential to the long term viability of TMS-AIME. Hopefully, this drop in unpaids will initiate a continued downward trend.

Exhibit 4:



III. Membership Services

A. Membership Involvement Survey - During the summer months of 1984, TMS-AIME conducted a membership survey to determine ways the Society could encourage greater member involvement and participation. From the over 11,000 members TMS presently counts on its roster, a group of almost 5,000 were polled. This total represents two main groups: the first being all TMS-AIME members with 5 years or less affiliation, and the second is every seventh member of the general membership. Of the 5,000 surveys mailed, almost 500 members responded (approximately 10%) - supplying some much needed information with respect to member interests, as well as the desire for TMS-AIME to continue playing an even greater role in the metallurgical community.

The survey solicited input through a ten question format covering issues on technical involvement, as well as participation in the administrative affairs of the Society. The survey was to determine:

- The most important technical areas
- The preferred organizational interest areas
- Importance of specific activities which TMS currently undertakes
- How to increase member involvement
- Why members choose not to participate
- The level of employer support received by the members (both financial and otherwise)

As was previously mentioned, a great deal of significant data was gleaned from the responses. By the same token, some new trends occurring throughout the ranks of the younger TMS members were revealed for the first time.

An open meeting of the membership and leadership of TMS-AIME will be held at the 114th AIME Annual Meeting in New York City. The purpose of this open meeting will be to review the baseline information generated from the Membership Involvement Survey, and to give TMS-AIME members-at-large the opportunity to discuss how TMS-AIME can better encourage more member involvement.

B. Corporate Sponsor Program - In December, TMS-AIME initiated a Corporate Sponsor Program. Participation in this program is open to any corporation, institution or other organization engaged in research, education, or the commercial application of metallurgical and materials science technology. Of the two sponsorship categories, Sustaining Corporate Sponsors are being asked to contribute a minimum of $2,000 annually, and Corporate Sponsors $500 annually. Final statistics on the outcome of the Corporate Sponsor Program will not be available until December of 1985. However, we are pleased to report that early returns indicate that there is both a genuine need and interest for this exciting new program.

C. TMS News - A membership newsletter was initiated in 1984. TMS News was published six times during the year as an insert for JOURNAL OF METALS. It features important society information and the latest on industry developments. TMS-AIME members can look forward to receiving a copy of TMS News in each issue of JOURNAL OF METALS published in 1985.

D. Membership Identification Cards - TMS-AIME members paying dues in 1984 received handsomely designed plastic membership identification cards. Previously, TMS-AIME membership cards were made out of medium-weight paper stock. The cards, which were sent as a self-mailer, thanked TMS-AIME members for their continued support. They also listed their membership benefits. The new membership identification cards feature each member's name, identification number, primary technical interest area, member grade, years of membership, and expiration date.

E. TMS-AIME Calendar - In 1984, as in the three previous years, TMS-AIME again provided its members with an activities calendar. The TMS-AIME calendar is sent to every member free of charge. It lists such important information as staff responsibilities and telephone 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.

F. Membership Directory - To continue to improve communication among Society members, TMS-AIME again published a Membership Directory. The Membership Directory lists each member (in alphabetical order), member grade, year of election, current position, address and telephone number. The directory also lists each member by geographical location. Due to the resourcefulness of this publication, TMS-AIME will continue printing an annual membership directory.

G. TMS-AIME Rolladex Cards - To further improve communication between TMS-AIME members and Society Headquarters, TMS-AIME distributed rolladex cards to its membership. The cards listed important departmental telephone numbers which can be used as hotline numbers when members need information regarding TMS-AIME meetings and publications. Even though the cost of printing and distributing the rolladex cards was relatively inexpensive, this service was well received by the TMS-AIME membership.

H. Membership Certificate - TMS-AIME once again provided members the opportunity to purchase membership certificates featuring their name and year of membership election in TMS-AIME. The certificate is hand inscribed in traditional Gothic lettering, accented with a gold-embossed TMS insignia. 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, 1984, membership certificate orders were as follows:

66 - Certificates only
206 - Certificates mounted
272 - TOTAL

Twenty-nine complimentary certificates were forwarded to new TMS-AIME members as part of our Non-Member Registrant campaign following the 113th AIME Annual Meeting in Los Angeles.

I. TMS-AIME Titles - A titles brochure containing a comprehensive list of all TMS-AIME publications, as in the past, was published to promote the sale of TMS-AIME publications to both members and non-members. TMS-AIME members have the opportunity to purchase Society publications at a reduced rate -- often 30 - 40% off the list price. The 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.

IV. Local Sections

A. Background - TMS-AIME's Local Section program received a considerable amount of attention and support from the Membership Department staff during fiscal year 1984. The reason for the increased support of section activity was due largely to the information received via the Membership Involvement Survey.

B. New Sections - TMS-AIME is pleased to report that in 1984, three additional sections were chartered . . . the New Jersey Section of TMS-AIME, the Pittsburgh, or Three Rivers Section of TMS-AIME, and the Denver Section of TMS-AIME. Each section received $100 in start-up monies from TMS-AIME, and one mailing free of charge to its section members. The Denver Section is the first extractive metallurgy section to be chartered by TMS-AIME.

C. Meeting Announcement Service - A new service which was initiated late last year by TMS-AIME for its Local Sections is the printing and mailing of section meeting announcements. A number of sections have already taken advantage of this service, which provides 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 reduced cost, compared to the costs of having it performed at the local level.

D. Current Status - TMS-AIME currently maintains and services 14 Local Sections. TMS-AIME Local Sections are as follows:

- Boston Section
- Central Indiana Section
- Chicago Section
- Cleveland Section
- Connecticut Section
- Denver Section
- Detroit Section
- Hudson-Mohawk Section
- New Jersey Section
- Northern California Section
- Ohio Valley Section
- Southern California Section
- Three Rivers Section (Pgh.)
- Virginia Section

V. Student Affairs

A. Student Member Recruitment - Since students are the prospective members 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 healthy rate. Student member recruitment figures for fiscal year 1984 show that a total of 979 Joint TMS-AIME/ASM student members were recruited. In addition, a total of 119 foreign students were recruited for the same period for student membership in TMS-AIME.

B. Student Contest Winners - This year, four 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/materials science. 1984 recipients will be awarded a $250 cash prize plus $250 in travel expense monies to attend the 114th AIME Annual Meeting in New York. The winners of the 1984 Student Paper Contest are:

Undergraduate - Physical/Mechanical Metallurgy

Tresa Mader Pollock (PURDUE UNIVERSITY)
"Formability & Shear Failure of An Austenite-Ferrite Stainless Steel"

Undergraduate - Extractive & Process Metallurgy

Lisa Burke (OHIO STATE UNIVERSITY)
"The Effect of Sulphur Content on the Type of Calcium Aluminates Found in Molten Steel"

Graduate - Physical/Mechanical Metallurgy

Ramesh Divakar (OHIO STATE UNIVERSITY)
"Fracture Toughness Studies in Partially Stabilized Zirconia"

Graduate - Extractive & Process Metallurgy

Rajen Chanchani (UNIVERSITY OF FLORIDA)
"Selective Flotation of Dolomite from Apatite After Two Stage Conditioning with Sodium Oleate as the Collector"

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 receives a cash award of $250 and a certificate. Honorable mention awardees receive $100 honorariums and certificates. The winners and honorable mention awardees for the 1984 Outstanding Student Chapter Contest are:

CONTEST WINNER: University of Florida
Faculty Co-Sponsors: Raymond A. Rummel, Associate Professor
Richard G. Connell, Jr., Asst. Professor

FIRST HONORABLE MENTION: Ohio State University
Faculty Sponsor: William A. Clark, Assistant Professor

SECOND HONORABLE MENTION: University of Michigan
Faculty Sponsor: J. Wayne Jones, Assistant Professor

THIRD HONORABLE MENTION: University of Pittsburgh
Faculty Sponsor: Henry Andrejasik, Associate Professor

FOURTH HONORABLE MENTION: University of Arizona
Faculty Sponsor: S. Raghaven, Professor

C. New Student Chapter - TMS-AIME chartered one new student chapter in 1984, Trinity College in Dublin, Ireland. In addition, TMS-AIME was able to reactivate the following student chapters:

Illinois Institute of Technology
Lafayette College
Lehigh University
University of Michigan
Stevens Institute of Technology
Syracuse University

D. Current Status - TMS-AIME currently maintains some 44 student chapters in 25 states and in three foreign countries. The following is a list of these TMS-AIME student chapters:

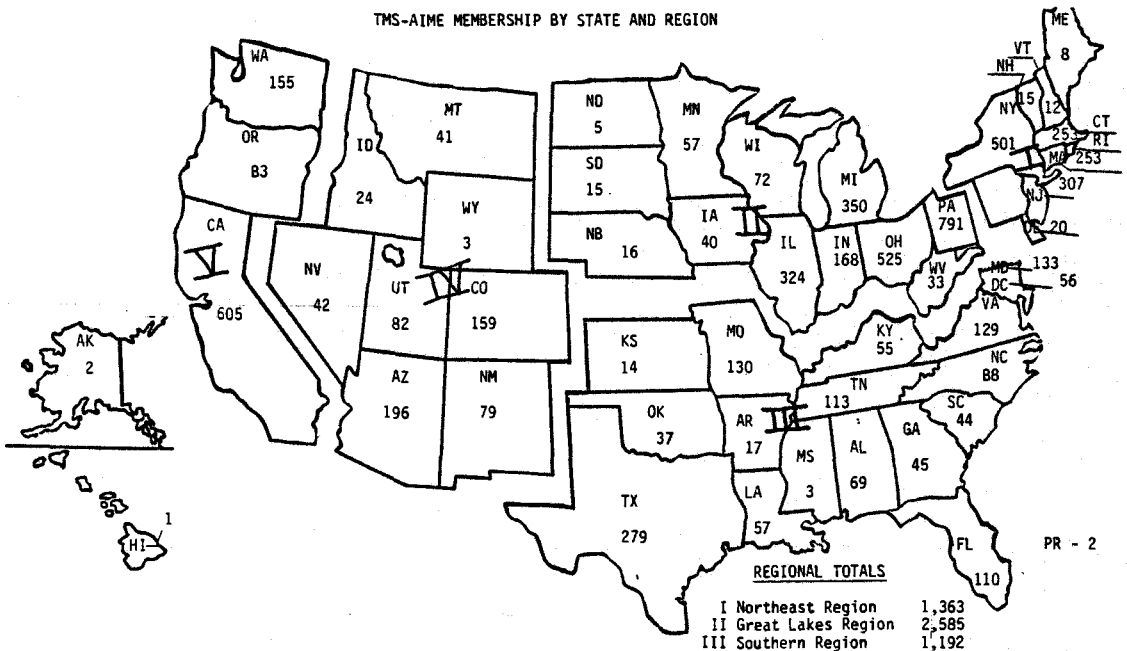
Univ. of Alabama
Univ. of Arizona
Auburn University
Univ. of Cal.-Davis
Carnegie-Mellon Univ.
Case Western Reserve
Colorado School of Mines
Columbia Univ.-Henry Krumb School of Mines
Drexel University
University of Dublin
University of Florida
Georgia Inst. of Tech.
Univ. of Illinois at Urbana
Illinois Inst. of Tech.
Johns Hopkins Univ.
Lafayette College
Lehigh Univ.
Louisiana State Univ.
MIT
Michigan State Univ.
Michigan Tech. Univ.
University of Michigan
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
University of Pennsylvania
Purdue University
Rensselaer Polytechnic Inst.
Univ. Industrial De Santander
Stevens Inst. of Tech.
Syracuse University
Univ. of Texas at El Paso
Univ. of Washington
Washington State Univ.
Wayne State Univ.
Univ. of Wisconsin-Madison
Univ. of Wisconsin-Milwaukee

E. Career Booklets - In October, the staff at TMS-AIME published a new Career booklet entitled, "Planning a Career in Metallurgical Engineering, Metallurgy and Materials." The new Career booklet presents an overview of professional opportunities in metallurgy and related disciplines and provides guidelines on educational paths and career choices for those considering entering the field in the late 1980's and beyond. Some 4,000 copies of the Career booklet were distributed to universities, colleges, career centers and students in 1984.

F. Travel Reimbursements - Each year, TMS-AIME makes available to each of its student chapters $350 to cover part of the expenses incurred when traveling to either of the TMS-AIME Fall Meetings or the AIME Annual Meeting. In 1984, TMS-AIME distributed a total of $3,500 in student travel monies. The following schools received 1984 travel reimbursements from TMS-AIME:

1. Colorado School of Mines
2. University of Florida
3. University of Michigan
4. New Mexico Institute of Mining & Technology
5. Northwestern University
6. Ohio State University
7. Purdue University
8. Rensselaer Polytechnic Institute
9. Washington State University
10. University of Wisconsin-Madison

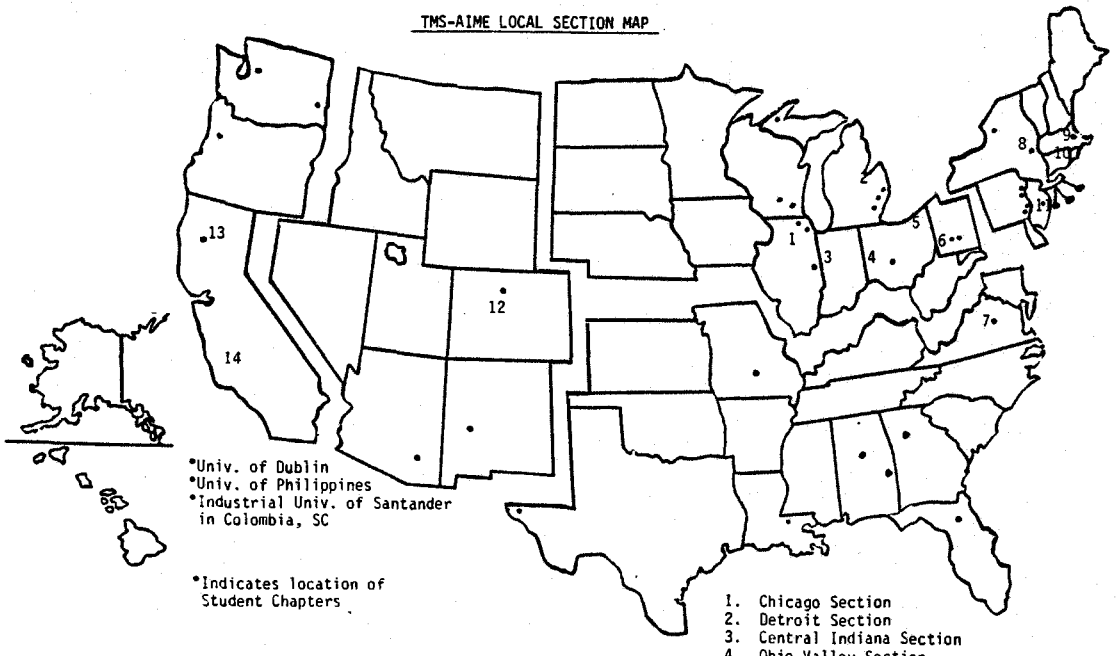
TMS-AIME MEMBERSHIP BY STATE AND REGION



REGIONAL TOTALS

I Northeast Region	1,363
II Great Lakes Region	2,585
III Southern Region	1,192
IV Intermountain Reg.	626
V Pacific Region	843
	6,609

TMS-AIME LOCAL SECTION MAP



*Univ. of Dublin
*Univ. of Philippines
*Industrial Univ. of Santander in Colombia, SC

*Indicates location of Student Chapters

1. Chicago Section
2. Detroit Section
3. Central Indiana Section
4. Ohio Valley Section
5. Cleveland Section
6. Three Rivers Section
7. Virginia Section
8. Hudson-Mohawk Section
9. Boston Section
10. Connecticut Section
11. New Jersey Section
12. Denver Section
13. Northern California Section
14. Southern California Section

TMS-AIME MEMBERSHIP OUTSIDE U.S. BY LOCATION

YEAR END FISCAL YEAR 1984

EUROPE

Ireland	22
England	110
W. Germany	90
France	88
Switzerland	48
Sweden	46
Norway	45
Belgium	45
Finland	30
Italy	32
Netherlands	18
Greece	14
Spain	15
Austria	14
Denmark	8
All others	21
	646

SOUTH AMERICA

Brazil	35
Chile	30
Venezuela	16
Peru	23
Colombia	12
All others	18
	134

AFRICA

South Africa	52
Nigeria	27
Zambia	23
All others	19
	121

ASIA

Iran	11
Japan	170
Korea	40
India	51
Philippines	27
Turkey	24
China	29
Israel	12
Egypt	12
All others	53
	429

NORTH AMERICA

Canada	535
Mexico	49
All others	6
	590

AUSTRALIA & NEW ZEALAND

Australia	122
New Zealand	7
	129

TOTAL FOREIGN MEMBERSHIP	-	2,049
TOTAL U.S. MEMBERSHIP	-	6,609
GRAND TOTAL MEMBERSHIP		8,658

TMS-AIME MEMBERSHIP BY GRADE CLASSIFICATION

JANUARY 1, 1985

Member	5,087	Retired Member	26
Associate Member	643	Life Member	5
Junior Member	1,379	Rocky Mountain	2
TMS Student Member	154	Legion of Honor	35
Honorary Member	11	AJM's	808
Senior Member	508	TOTAL	8,658

PROFESSIONAL ACTIVITIES

ABET

The Accreditation Coordination Committee of ABET reviewed proposed revisions to the criteria for accreditation program in engineering which was prepared by the Engineering Accreditaiton Commission (EAC) and submitted to the Participating Bodies for comment. One of the main issues discussed at the recent ABET Board Meeting was whether at least one engineering design course should be a mandatory curricular requirement for all fields of engineering. The EAC proposed such a requirement, but the ACC, at the urging of a Participating Body, recommended that such a course be mandatory only if prescribed in individual program criteria. The Board voted heavily in favor of the original EAC proposal for a mandatory design course for all engineering fields.

There was significant activity on the Technology Accreditation Commission (TAC) during 1984 which involved making substantial changes in the Criteria of Accrediting Programs in Engineering Technology. The minimum total semester hours for both associate and baccalaureate degrees were increased from 60 to 64, and from 120 to 124 hours respectively. In addition, minimum credit hour requirements for mathematics, and oral and written communications skills were established for both the engineering technology associate and baccalaureate degree programs.

An ongoing objective of ABET is to launch a program to certify continuing education programs and continuing efforts are being made to obtain the needed funds.

EDUATION AND PROFESSIONAL AFFAIRS

The TMS Education Subcommittee of the Education and Professional Affairs Committee sponsored two sessions on Computer Usage in Materials Education held at the Fall Meeting in Detroit. Proceedings, entitled Computer Usage in Materials Education, will be available from TMS by June 1985. The Education subcommittee is also considering developing programming on engineering design in materials education for future TMS meetings.

The Professional Registration Subcommittee of the E&PA Committee has developed a pool of questions available for the 1985 professional registration exam. Example questions are published in Journal of Metals each month with the answer appearing the following month. Members of the Society are urged to submit questions to the Editor of JOM for consideration by this Committee. A set of guidelines for preparation of examinations questions is being developed. A study guide for those preparing to take the professional registration examination is also under consideration as is a refresher course which could be offered annually at the TMS Fall Meeting for examinees.

In its continuing attempt to strengthen liaison with sister societies in the field, the E&PA Committee has reviewed and discussed working relationships with ISS, SME, ASM and ASEE. A more formal relationship with the DEPTH Committee will also be explored.

HONORS AND AWARDS

The TMS-AIME Board of Directors has elected the following members to the grade of Fellow for 1985:

James C.I. Li
Oleg D. Sherby

The following awards will be presented at the 114th AIME Annual Meeting by The Metallurgical Society of AIME to recognize the 1985 recipients:

ROBERT LANSING HARDY GOLD MEDAL

James J. Komadina 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

R.O Ritchie and S. Suresh are corecipients of the Champion H. Mathewson Gold Medal for their exceptional contributions to the understanding of fatigue and fatigue crack growth.

EXTRACTIVE METALLURGY SCIENCE AWARD

L.E. Eary and L.M. Cathles are the recipients of this award for their paper entitled "A Kinetic Model of $UO_2$2 Dissolution in Acid, H_2O_2Solutions That Includes Uranium Peroxide Hydrate Precipitation" published in Metallurgical Transactions B, September 1983.

EXTRACTIVE METALLURGY TECHNOLODY AWARD

V.P. Keran of the Mount Isa Mines Limited in Australia was selected for this award based on his paper "Current Commercial Sulphide Smelter Operations" published in the Proceedings of the TMS Conference, Advances in Sulfide Smelting.

EXTRACTIVE METALLURGY LECTURER

Leslie Verney of Union Miniere, Brussels, Belgium, was selected as the Extractive Metallurgy Lecturer for 1985 and the title of his lecture was "Developments in Copper Extractive Metallurgy."

WILLIAM HUME-ROTHERY AWARD

Richard E. Watson is the recipient of this award for 1985 in recognition of his outstanding scholarly contributions to the science of alloys.

ACTA METALLURGICA GOLD MEDAL

John Christian of Oxford University, London, is the 1984 recipient of this international award recognizing outstanding contributors to materials science.

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

Arden L. Bement, Jr., was chosen by this joint-committee as the 1985 Lecturer.

INSTITUTE OF METALS LECTURER AND R.F. MEHL AWARD

Peter Haasen, Professor at the University of Gottingen, West Germany, is the 1985 recipient of this award and the topic of his lecture was "The Early Stages of the Decomposition of Alloys."

ACKNOWLEDGEMENT

Appreciation is extended to all members, Officers and Directors of The Metallurgical Society of AIME. A special thanks to President Verink.

Thanks also to the staff who have performed most admirably. The TMS staff as of January 1, 1985, by position, is:

TITLE	NAME	YEARS OF SERVICE
Executive Director	Alexander R. Scott	14
Administrative Assistant	Gayle Geddes	3
Director, Business Services	Peter DeLuca	11
Manager, Administrative Services	John Bloomer	1
Manager, Member Services	Mark O'Connor	3
Administrative Assistant	Joanne Melder	5
* Clerical Assistant	Jayne Quinn	-
Manager, Meeting Services	Alan Reed	1
Assoc. Meetings Manager and Technical Program Coordinator	Barbara Kamperman	2
Administrative Assistant	Marlene Karl	-
Book Order Processing	Judy Connolly	1
Computer Operations Manager	AnnaMarie Ness	3
Data Entry Assistant	Marge Miller	-
Mail Processing	Nate Hostetter	1
Print Production Manager	Robert Makowski	4
Graphic Designer	Michael Tarquinio	1
Artist/Editorial Assistant	Sally Perkins	1
Book Production	Patricia Kwiatek	6
Copy Editor	James Robinson	-
Editor, Journal of Metals	Kevin Marsden	1
Manager, Book Services	Elizabeth Luzar	2
Administrative/Production Asst.	Marianne Schnarrenberger	1
Manager, Circulation and Advertising	Linda Morgan	7
Administrative Assistant	Mary Jane Alsing	5

Respectfully submitted,

Alexander R. Scott

Alexander R. Scott
Executive Director

* Temporary Position

IRON AND STEEL SOCIETY OF AIME

REPORT

OF THE

EXECUTIVE DIRECTOR OF THE IRON AND STEEL SOCIETY OF AIME

FOR 1984

In spite of the continued shrinking of the iron and steel industry in North America, the Iron and Steel Society (ISS) recorded a 3 percent increase in membership in 1984. The ISS census at year's end recorded 6,320 members, about 200 short of the record membership of 6,520 set in 1982. From a financial standpoint, 1984 was a record breaking year with revenues of $1,221,781. The Society enjoyed a surplus of $70,673 for the fiscal year increasing the reserve operating fund to $421,500. At year end 1984, AIME assets under custodial assignment to ISS totaled $1,159,593, an increase of 13 percent over 1983. The Award Fund was at $110,257.

The Society celebrated its Tenth Anniversary year by initiating a membership drive which was very instrumental in bringing over 900 new members into the organization. Conference registration was up significantly over 1983. Registration at the Spring Conferences of the Ironmaking, Steelmaking and Process Technology Divisions was up 30 percent. Attendance at the Electric Furnace Conference in December increased by over 200, a 20 percent gain over the previous year. Total attendance at all Society conferences increased from 2,628 in 1983 to 3,295 in 1984.

For the second consecutive year, new records were set in number of conference exhibits. The number of exhibitors at the two ISS annual conferences was up 30 percent over 1983.

In November the new Society Advanced Technology Committee held its first conference in Baltimore on Horizontal Casting. One hundred twenty-two people attended the conference to hear papers on this innovative approach to continuous casting. The Advanced Technology Committee plans two such conferences for 1985. In addition to these conferences, the Iron and Steel Society will jointly sponsor the Fourth International Symposium on Agglomeration with the Canadian Institute of Mining and Metallurgy (CIM) in Toronto this coming June. In August the Iron and Steel Society will join with the Iron and Steel division of The Metallurgical Society of CIM to sponsor a symposium on Statistical Process Control, to be held in Vancouver, British Columbia. These conferences are all in addition to the five annual conferences sponsored by the five operating divisions of the Society.

Volumes II and III of the reference text series on Continuous Casting were published early in 1984. The revised text on *Electric Furnace Steelmaking* went to the printer in November and is expected to be published in February. Work is progressing on the text *Plasma Technology in Metallurgical Processing*. The Society will also publish the Proceedings of the Vacuum Metallurgy Conference which the Process Technology Division of ISS co-sponsored with the Vacuum Metallurgy Division of the American Vacuum Society. The Proceedings are scheduled for publication in April. Volume IV of the Continuous Casting series is also scheduled for publication in 1984.

Finally in December of 1984, the Iron and Steel Society became a separately incorporated not-for-profit company in the state of Pennsylvania. The Society will continue its allegiance to AIME and participate in the activities of AIME.

HONORS AND AWARDS

James B. Austin Award
The James B. Austin Award will be presented to Ralph T. Brower, 1984 President of the Iron and Steel Society. The past president award was named after Mr. Austin to honor him for his contributions of time, effort and ability towards the formation of the Iron and Steel Society.

Distinguished Member
Five members of the Society were elected to the grade of Distinguished Member in 1984. A Distinguished Member of the Iron and Steel Society is a member 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.

Ethem T. Turkdogan
"For his significant contribution of research in the field of the Physical Chemistry of Ironmaking and Steelmaking Processes."

John R. Stubbles
"For his contribution to the Society as Chairman of the Continuing Education Committee and his technical contribution to the education of the people in the steel industry."

Francis D. Nelson
"For over 30 years of leadership in AIME. His contributions of service to our professions have been made at all levels of the organization. The local sections, the divisions, the Society, and the Institute."

Frank W. Luerssen
"For his many years of valuable support to the Society and his technical contributions to the profession."

Tasuku Fuwa
"For his numerous contributions to the phsyical chemistry of iron and steelmaking and his dedication and excellence as a teacher."

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. Frank Luerssen is the 1985 recipient - "For his leadership in the modernization of steelmaking through new technology and his strong commitment to the continued development of the iron and steel industry."

Robert W. Hunt Silver Metal Award
The award is given for the best original paper on iron and steel. J.D. Young and D.J. Harris were the 1984 recipients for their paper: "Water Modeling - A Viable Production Tool."

John Chipman Award
The award was established in 1971 by the Process Technology Division of the Iron and Steel Society, 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 1984 the award was bestowed upon J.J. Poveromo and J.W. Hlinka for their paper: "Development and Application of Bethlehem Steel's Blast Furnace Charging Model."

Charles H. Herty, 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. K. Sasaki, H. Nakashima, M. Nose, Y. Takasaki, and H. Okumura were selected in 1984 for this award for their paper: "A Newly Developed Hot Metal Treatment Has Changed the Idea of Mass Production of Pure Steel."

Josef S. Kapitan Ironmaking Conference Award
The 1984 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 for the best paper presented at the annual Ironmaking Conference and published in the proceedings.

Joseph Becker Award
This award is given for distinguished achievement in coal carbonization and in 1984 the award was presented to Edward J. Helm.

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 1984 the award was presented to Windsor J. Davies for his paper: "Roll Etching of Cold Mill Workrolls."

Mechanical Working and Steel Processing Meritorious Award
This award is "runner-up" to the Michael Tenenbaum Award. Runners-up in the Tubular Products Division for 1984 were J.L. Tranchant, P. Boussard, R. Szezesny, C. Chretien, and A. Gueussier for their paper: "The Rotary Continuous Casting of Rounds at St. Saulve, France. Practical Experience and Quality Results." Runner-up in the Flat Rolled Products Division was H. Abrams for his paper: "Accelerated Spray Cooling to a Reduced Intermediate Temperature for Controlled Rolling." Runners-up in the Bar, Rod and Semi-Finished Products Division were W.J. Jarae, J.T. Corrigan, and W.R. Emery for their paper: "Improved Steel Surface Quality by Bottom Pouring." The runners-up in the Process Technology Division were J.R. Cook, T.R. Dishun, and D.F. Ellerbrock for their paper: "A Systematic Study of the Factors Controlling Ingot to Strip Yield, Energy, and Quality."

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 the university's Department of Metallurgy and Materials Science. The award, a $3,150 scholarship, was presented in 1984 to Charles J. Kraisinger.

Charles W. Briggs Award
This award is conferred for the best paper presented at the annual Electric Furnace Conference and published in the proceedings. The 1984 award was given to Stavros Argyropoulos for his paper: "Dissolution Characteristics of Ferroalloys in Liquid Steel."

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 1984 winner was Masaaki Higuchi.

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 1984 recipient was John H. Scheel.

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 1984 award are A.W. Cramb and M. Byrne for their paper: "Tundish Slag Entrainment at Bethlehem's Burns Harbor Slab Caster."

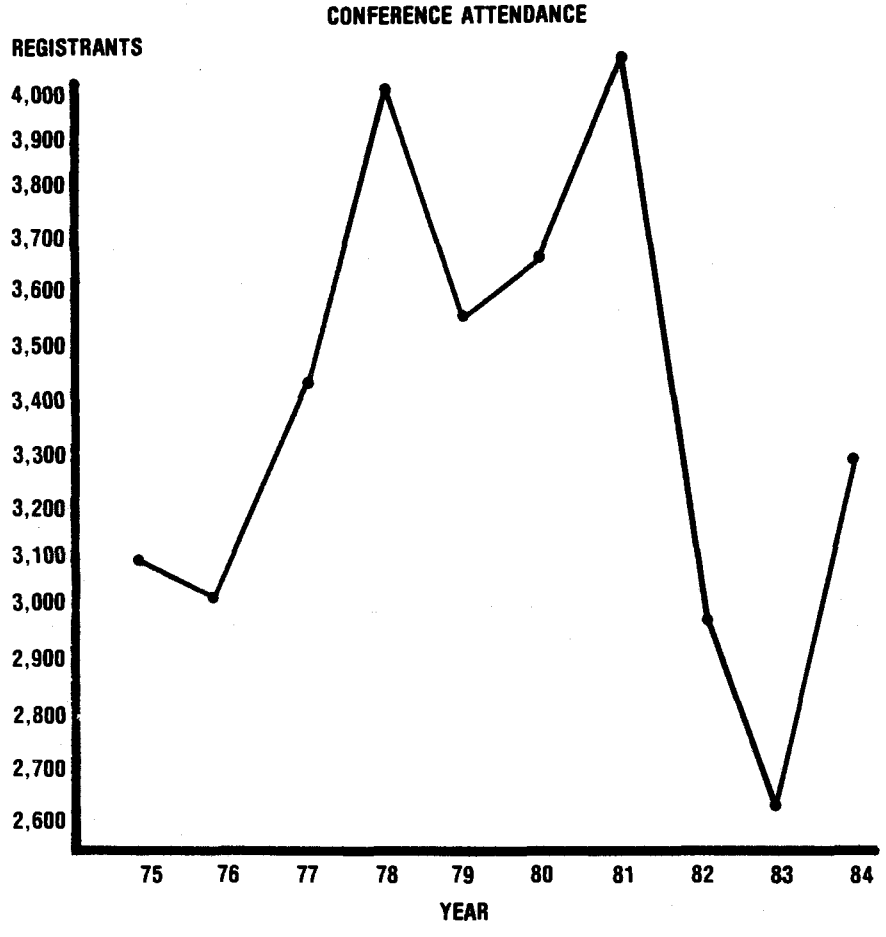
Steelmaking Conference Award
This award is the runner-up to the Frank B. McKune Award. It was presented in 1984 to J. Hasunuma, A. Ueda, M. Kodama, M. Ohnishi, Y. Habu, and K. Suzuki for their paper: "Continuous Casting of Highly Clean Steel Slab."

Howe Memorial Lecture
The Howe Memorial Lecture was established in 1923 by the Iron and Steel Division. The lecturer is selected for his outstanding contributions to the science and practice of iron and steel metallurgy or metallography. The 1984 Howe Memorial Lecturer was Frank W. Luerssen. The topic of his lecture was: "The Manufacture of Free-Machining Carbon Steels."

MEETINGS DEPARTMENT

Technical Conferences/Advanced Technology Symposium
The Iron and Steel Society, through its divisions, sponsored or co-sponsored six technical conferences and one advanced technology symposium during 1984. These attracted 3,295 registrants.

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



Conference/Symposium	Attendance	Sessions	Papers Presented
113th AIME Annual Meeting Los Angeles, CA Biltmore February 26-March 1, 1984	62	11	67
67th Steelmaking Conference	956	9	44
43rd Ironmaking Conference	479	12	59
4th Process Technology Conference Chicago, IL Hyatt Regency April 1-4, 1984		4	23

26th Mechanical Working and Steel Processing Conference Chicago, IL McCormick Center Hotel October 17-19, 1984	270	9	35
1st Advanced Technology Symposium Topic: Horizontal Continuous Casting Baltimore, MD Baltimore Hilton Inn November 13-14, 1984	122	3	14
42nd Electric Furnace Conference Toronto, Canada Royal York December 4-7, 1984	1406	12	48
TOTALS:	**3295**	**60**	**290**

Schedule of Iron and Steel Society Conferences for 1985 and 1986

1985		
AIME Annual Meeting	February 24-28	Sheraton Center New York, NY
44th Ironmaking, 68th Steelmaking, 5th PTD	April 14-17	The Westin Hotel Renaissance Center Detroit, MI
4th International Symposium on Agglomeration	June 2-5	Royal York Hotel Toronto, Canada
27th Mechanical Working and Steel Processing	October 27-29	Stouffer's Inn on the Square Cleveland, OH
43rd Electric Furnace	December 10-13	Atlanta Hilton Atlanta, GA
1986		
AIME Annual Meeting	March 2-6	New Orleans Marriott New Orleans, LA
Fifth International Iron and Steel Congress featuring: 69th Steelmaking Conference 45th Ironmaking Conference 6th PTD Conference	April 6-9	Sheraton Washington Washington, DC
Mechanical Working and Steel Processing	October 26-28	Marriott Inn-Greentree Pittsburgh, PA
Electric Furnace	December 9-12	Loew's Anatole Dallas, TX

Technical Information Exchange
The Technical Information Exchange is an exhibit that is held at the Iron and Steel Society Conferences and Advanced Technology Symposiums each year. Its purpose is to provide an opportunity for supplier companies of the iron and steel industry to display their products and services.

Conference/Symposium	Number of Exhibitors
67th Steelmaking Conference and 43rd Ironmaking Conference	44
26th Mechanical Working and Steel Processing Conference	5
Advanced Technology Symposium - Horizontal Continuous Casting	7
42nd Electric Furnace Conference	94

CONTINUING EDUCATION

In 1984 the Iron and Steel Society held a total of seven short courses - four at national conferences, two in conjunction with local section meetings and one at an advanced technology symposium. A total of 269 people attended.

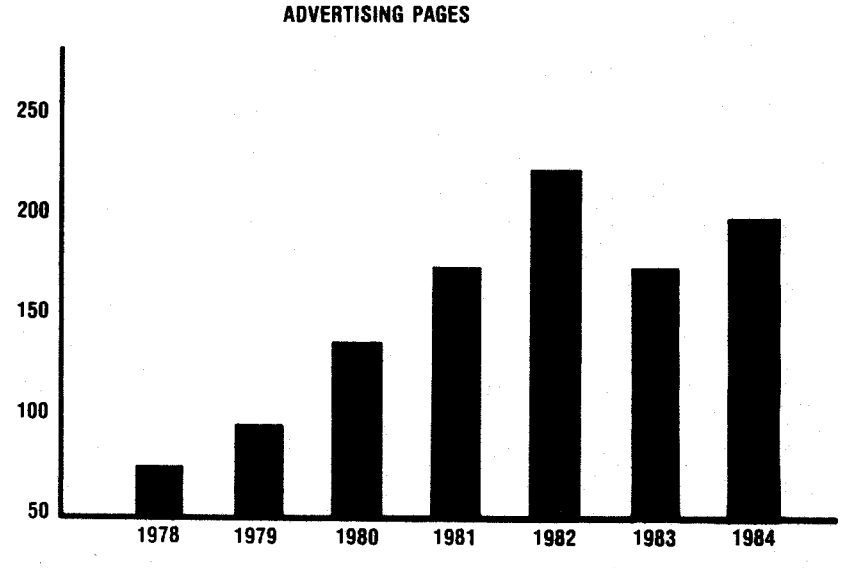
Topic	Date	Attendance
Ladle Metallurgy/Ladle Refractories	February 7-8	65
Blast Furnace Control	April 1	28
Bottom Pouring	April 1	29
Electromagnetic Stirring	April 4	27
Ladle Arc Furnace Metallurgy	October 6	33
Electromagnetic Stirring	November 12	32
Tundish Metallurgy	December 3-4	55
TOTAL ATTENDANCE		**269**

PUBLICATIONS DEPARTMENT

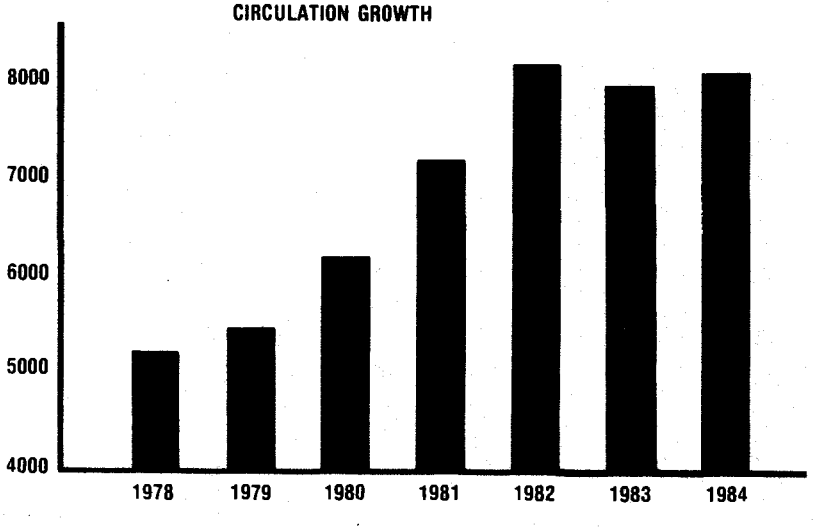
Over the past few years the number of conference proceedings and technical reference books that the Society produces has grown steadily. In order to meet this growing publishing activity the Society's Board of Directors approved the reorganization and expansion of the Publications Department in 1984.

This expansion resulted in the hiring of two additional people, the purchasing of new equipment and the upgrading of the Department's typesetting equipment. These changes helped to reduce costs and increase the productivity of the department.

Iron & Steelmaker
With the steel industry finally recovering from its depression levels, the number of advertising pages in *Iron & Steelmaker* increased by 18 percent.



In addition, a membership drive held by the Society helped to reverse 1983's circulation decline for *Iron & Steelmaker.*



The increase in advertising pages also allowed the Society to increase the total number of pages published in the magazine. Thus, more technical articles were published in *Iron & Steelmaker* during 1984 than in 1983. The following table lists, by subject, the number of technical articles printed in *Iron & Steelmaker* during 1984.

Category	Number of Articles
Blast Furnace	9
Coke	1
Continuous Casting	6
Direct Reduction	1
Electric Furnace	11
Ferroalloys	1
History	1
Metallurgy	6
Oxygen Steelmaking	6
Refractories	3
Rolling - Mechanical Working	6
Steelmaking	6
Technology & Economics	9
Total	**66**

ISS-AIME Newsletter
Four issues of *ISS-AIME Newsletter* were published in 1984. The size of the newsletter was expanded in 1984 in order to cover the increase in Society activity.

Conference Proceedings
Five conference proceedings were published during 1984:

Electric Furnace Proceedings, Volume 41
313 pages, 47 papers

Process Technology Proceedings, Volume 4
193 pages, 25 papers

Ironmaking Proceedings, Volume 43
510 pages, 54 papers

Steelmaking Proceedings, Volume 67
369 pages, 38 papers

Mechanical Working and Steel Proceedings, Volume 21
621 pages, 33 papers

Specialized Texts
The following specialized texts were published during 1984:

Continuous Casting, Heat Flow, Solidification and Crack Formation, Volume II
238 pages

Continuous Casting, The Application of Electromagnetic Stirring (EMS) in the Continuous Casting of Steel, Volume III
129 pages

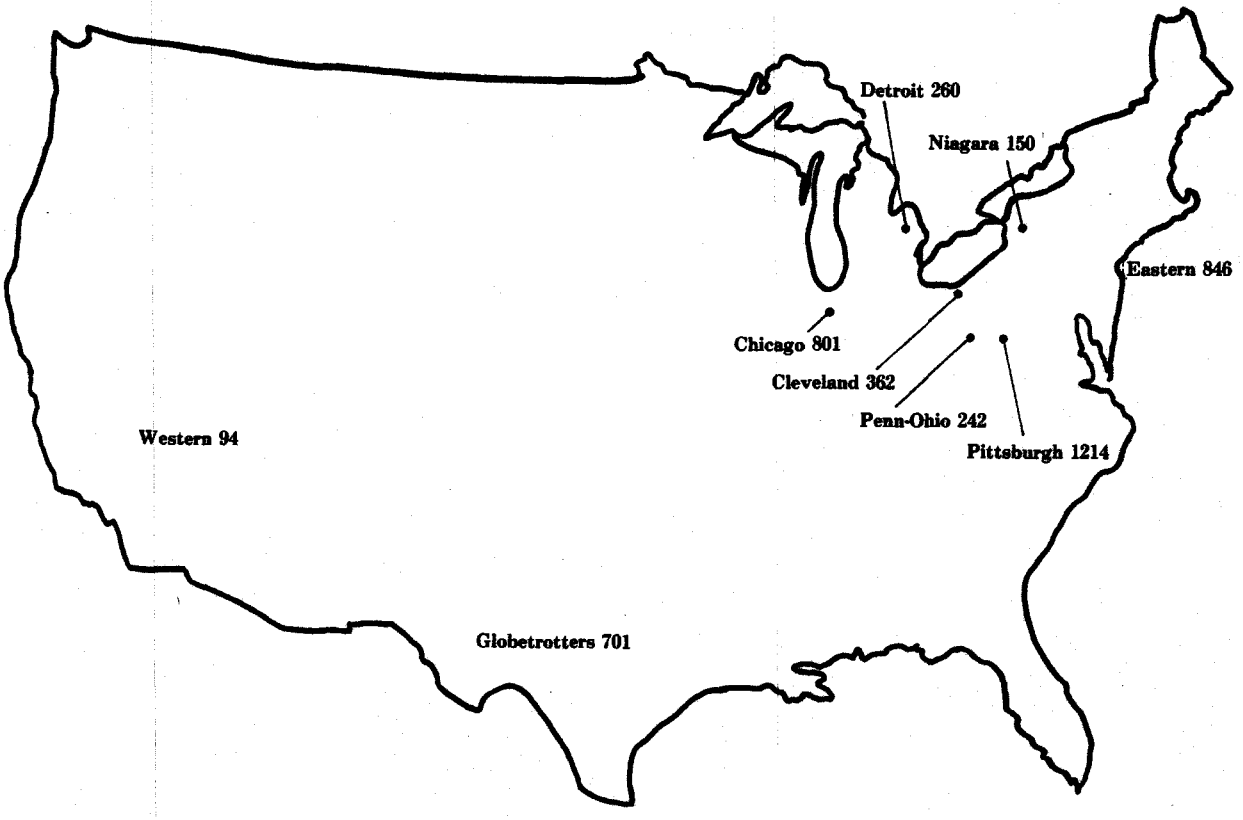
The Original Steelmakers
47 pages

Tonnage Maximization of Electric Arc Furnace Steel Production
20 pages

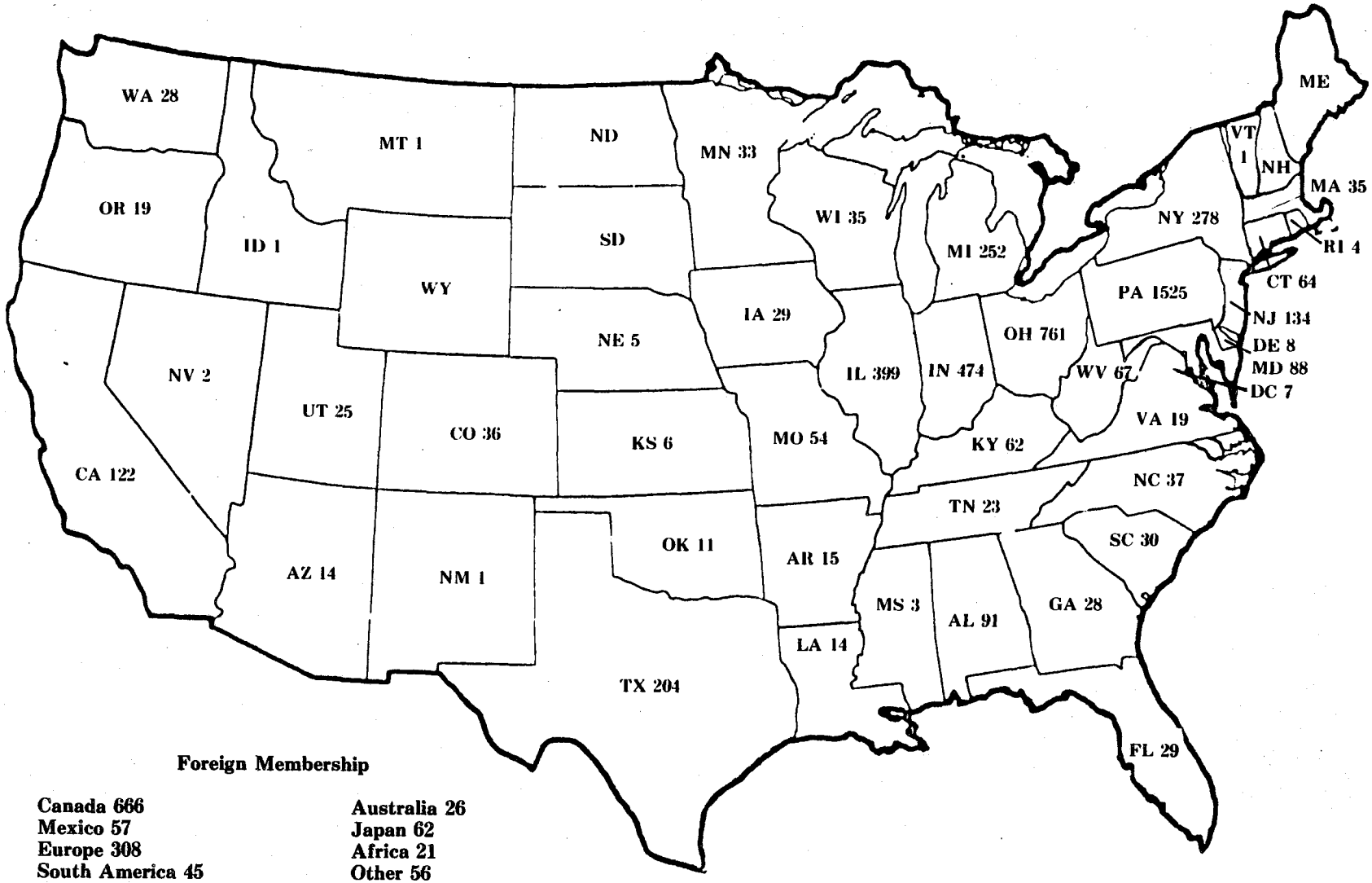
ISS-AIME LOCAL SECTIONS

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	801
2. Cleveland Iron and Steel Section of AIME	362
3. Detroit Iron and Steel Section of AIME	260
4. Eastern Iron and Steel Section of AIME	846
5. Globetrotters Iron and Steel Section of AIME	701
6. Niagara Section of AIME	150
7. Penn-Ohio Section of AIME	242
8. Pittsburgh Iron and Steel Section of AIME	1214
9. Western Iron and Steel Section of AIME	94



MEMBERSHIP DEPARTMENT

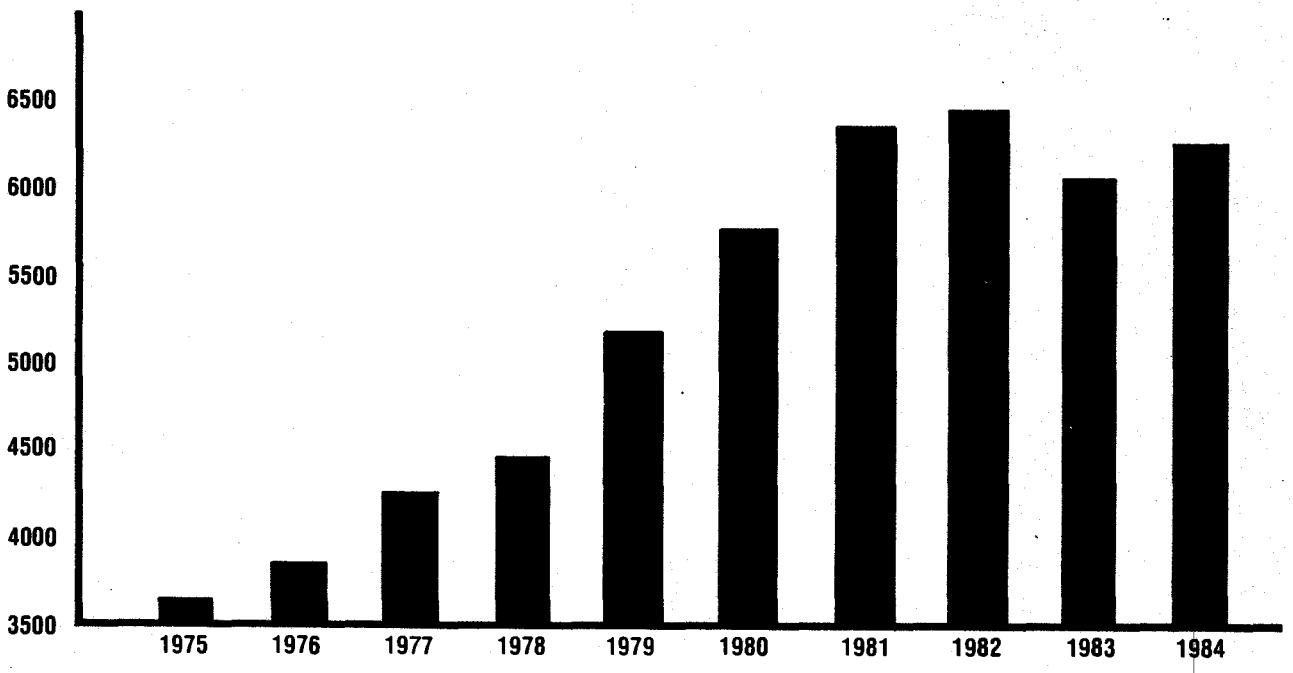


Foreign Membership

Canada 666	Australia 26
Mexico 57	Japan 62
Europe 308	Africa 21
South America 45	Other 56

Corporate Membership*

Year	Number
75	3636 ** (596) Joint
76	3885
77	4239
78	4470
79	5150
80	5772
81	6355
82	6428
83	6035
84	6204



* 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

Ralph T. Brower	President
Alex McLean	President-Elect
Howard N. Hubbard, Jr.	Past President
George W. Knepshield	Treasurer

IRON AND STEEL SOCIETY OF AIME HEADQUARTERS STAFF

Lawrence G. Kuhn	Executive Director and Publisher
Thomas McAloon	Manager - Publications
Elizabeth M. McGrath	Manager - Membership Services
Altha Shoup	Administrative Assistant
Peg Simanaitis	Marketing & Advertising Manager
David Staniszewski	Business Manager
Vi Wasielewski	Administrative Assistant
Diana L. Baier	Graphics/Production
Robert Burger	Graphics/Production
Lelia Fisher	Clerk
Martha Novak	Accts. Receivable/Publications
Leo Priore	Graphics/Production Magazine
Melinda A. Sample	Typesetter
Faith Schomberger	Membership Assistant
Helen Slack	Special Projects

Respectfully submitted,

Lawrence G. Kuhn
Executive Director

REPORT

OF THE

EXECUTIVE DIRECTOR, SOCIETY OF PETROLEUM ENGINEERS OF AIME

OVERVIEW

For the Society of Petroleum Engineers, 1984 was a year of challenges. Like the petroleum and natural gas industries with which most of its members are associated, SPE moved to adapt to the constantly changing conditions the energy industry faces worldwide. The Society became a separately incorporated organization, and plans were made for a new operating structure for the international society. There were major expansions in the meetings and continuing education programs, and in programs like the microcomputer users' group. Reduced revenues from publications, book orders, and meetings resulted in the first operating deficit in more than a decade. The year witnessed continuing expansion of the worldwide network of local sections and administrative regions with four new sections and three new regions established. A highlight of the year's activities was a move of SPE Headquarters to a permanent home in space constructed by the SPE Foundation.

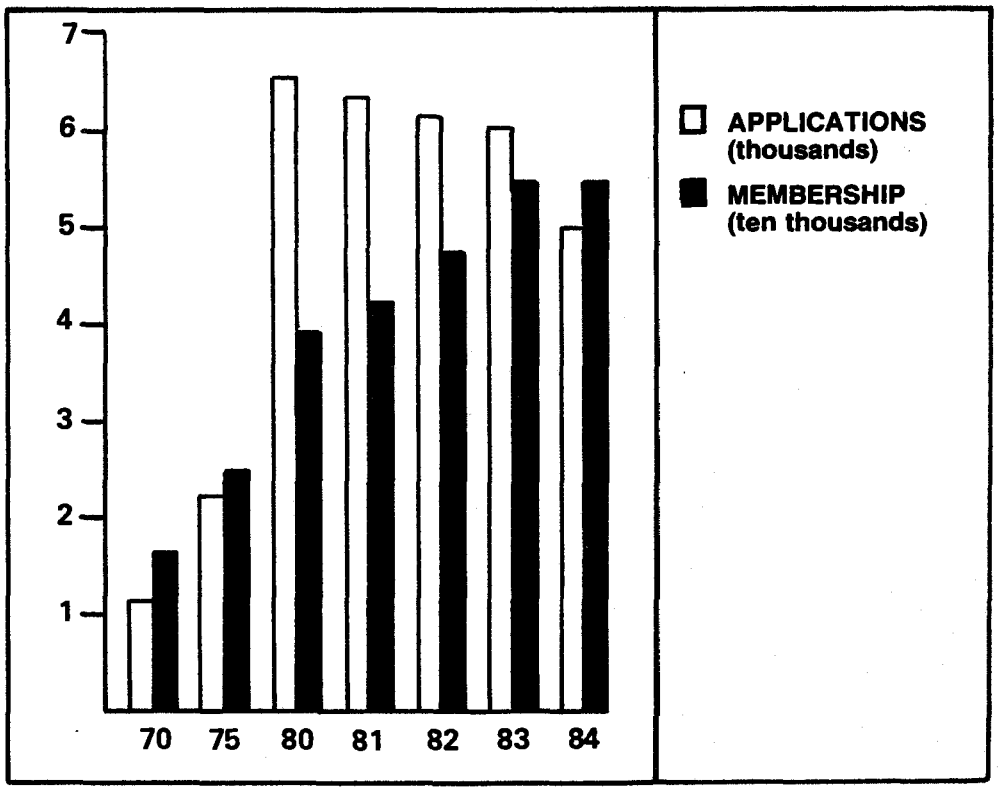
MEMBERSHIP

Paced by growth in some recently established sections, SPE added 4,414 new members from July 1, 1983, to July 1, 1984. With 93% retention of continuing members, membership grew from 52,969 at year-end 1983 to 54,809 at year-end 1984 -- a 3.5% increase. The increase in membership was the smallest in a decade -- a further indication of industry conditions.

The major increases in membership were in the areas outside the U.S. Five of the SPE sections that won division awards in the membership development program were outside the U.S.:Thailand (Bangkok), 20%; Malaysia (Kuala Lumpur), 24%; Nigeria (Lagos), 47%; Aberdeen Petroleum, 22%; and London Petroleum, 13%. The Trans-Pecos (Odessa-Monahans, TX) and Northern West Virginia (Clarksburg-Morgantown, WVa) also won their respective divisions in the membership development program that is based on a combination of new member additions and retention of current members.

Four SPE members were recognized by the Society for outstanding accomplishments in membership development at the Society's Annual Technical Conference and Exhibition in Houston. These members received life membership in SPE in recognition of their efforts to obtain more than 100 new members for the Society. Joe E. Wirsching of HNG Oil Co., Saiid El Derini of Tam Oilfield Services, Stephen Scott of Murphy H. Baxter, Saul Vela of Exxon Production Research Co. and Carroll Montgomery of Marathon Oil U.K. Ltd. each received the 100-Member Award.

SPE also recognized 10 members who completed more than 50 years' continuous membership. New Legion of Honor members are Arnold Dahl, R.O. Garrett, William Horner, Woodrow Leonard, Henry Lyle, Frank Miller, Victor Oppenheim, Stephen Phelan, George Pirtle, and W.E.D. Stokes Jr.



MEMBERSHIP BY CLASSIFICATION

Classification	1984	1983	% Increase
Member	24,449	23,492	4.1
Associate Member	9,341	8,700	7.4
Junior	16,220	15,707	3.3
Associate Junior	1,242	1,375	(9.7)
Student	3,557	3,695	(3.7)
TOTAL	54,809	52,969	3.5

MEMBER PROGRAMS AND SERVICES

A free resume data bank, Professional Engineering Employment Registry (PEER), was established for SPE members. The service, designed and controlled by SPE in cooperation with more than 20 other participating professional engineering and scientific societies, is for SPE members seeking new career opportunities and for companies looking for new employees.

The SPE Microcomputer Users Group, established in 1982, continued its phenomenal growth during 1984. The worldwide group now has more than 2,500 members in 27 local section study groups. Several sections started their own electronic-based section bulletin boards. The popular quarterly SPE Microcomputer News will be published bimonthly beginning in 1985.

Distinguished Lecturers made 241 presentations to sections during 1984. Distinguished Lecturers for 1984-85 are Henry J. Ramey Jr., Stanford U.; Tom G. Calhoun II, Calhoun Engineering Inc.; Joe D. Clegg, Shell Offshore Inc.; Lucio D'Andrea, U.S. DOE; David K. Davies, Davies & Assocs. Inc.; George G. Huntoon, Amoco Production Co.; Philip C. Crouse, Southwest PetroCorp.; James D. Henry, ARCO Exploration Co.; Robert L. Dalton, Exxon Production Research Co.; and Vernon A. "Bud" Isaacs Jr., Petro-Lewis Corp.

The SPE Speakers Bureau provides a list of speakers for SPE local section and student chapter meetings. In 1984, 59 speakers were listed, and topics covered all areas of petroleum engineering.

Three local sections contributed to the TIC Facts series, a popular feature in Journal of Petroleum Technology (JPT). This program, developed by the Technical Information Committee, communicates factual information about the petroleum industry to members and the public. 1984 topics included: U.S. Crude Oil

and Gasoline Price Trends (Jan.), Thermal Recovery Processes (Feb.), Comparative Federal Tax Burden, Oil Companies vs. Non-Oil Companies (March), U.K. Offshore Exploration Drilling Success (April), Estimated World Crude Oil Reserves (May), U.K. Oil and Gas Production Compared with Total Primary Fuel Consumption (June), United States Imports of Crude by Source (July), Consumption of Natural Gas in the United States (Aug.), Facts on Venezuelan Production (Sept.), Trends in World Oil Production (Oct.), Offshore Profile of the Continental United States (Nov.), and World Offshore Oil Production (Dec.).

COMMITTEE ACTIVITIES

Twenty-three administrative and editorial, 14 awards, and 14 technical committees were active in conducting Society affairs in 1984. In addition, seven ad hoc committees were formed to carry out specific tasks:

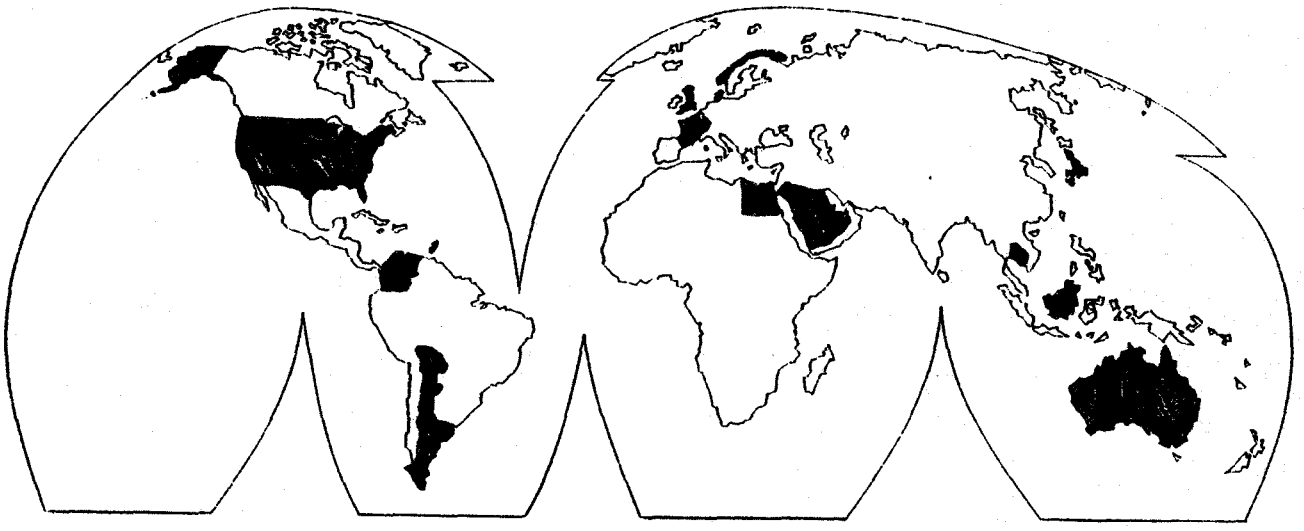
Operating Policies and Procedures
Policy for Chairmen of SPE Committees
Management Committee for SPE Service Corporation
Distinguished Lecturer Committee
Internationalization
Publications
Editorial Policy

The Engineering Registration Committee continued its work with the National Council of Engineering Examiners (NCEE) in preparing and grading the Principles and Practice Examination in Petroleum Engineering. In 1984, the committee graded 2,384 problems. In addition, several members made presentations to the California Board of Registration for Professional Engineers to oppose a recommendation to drop petroleum engineering as an approved engineering discipline in that state. As a result of that effort, the California legislature has received a recommendation to continue petroleum engineering as a recognized engineering discipline in the state.

LOCAL SECTIONS

Four new local sections and three regions were established. New sections in France (Paris), Denmark (Copenhagen), Peru (Lima), and the U.K. (Great Yarmouth) brought the total number of sections to 87. There are plans for three new sections in Australia. New regions formed for Central/South America, Middle East/Africa, and Asia Pacific illustrated SPE's commitment to become a worldwide society.

SPE WORLDWIDE NETWORK



Aberdeen Petroleum
Alaska Petroleum
Amarillo Petroleum
Anadarko Basin
Applachian Petroleum
Argentine Petroleum
Australian
Balcones
Bartlesville
Big Horn Basin Petroleum
Billings Petroleum
Bolivian
California Coastal
Caracas Petroleum
Chicago Petroleum
Coastal Bend
Copenhagen
Dallas
Delta
Denver Petroleum and Colorado Nebraska Subsection
East Kentucky

East Texas
Egyptian
Evangeline
Fort Worth
Four Corners Petroleum
France
Golden Gate
Great Bend
Great Yarmouth
Gulf Coast
Hobbs Petroleum
Illinois Basin Petroleum
Ivory Coast
Japan
Kalimantan
Lagos Nigeria
Lima
London Petroleum
Los Angeles Basin
Lou-Ark
Malaysian
Michigan
Mid-Continent
Midwest Gas Storage
Mississippi
National Capital
Netherlands
New York Petroleum
North Texas-Southwest Oklahoma
Northern Michigan
Northern Oklahoma
Northern Plains
Northern West Virginia
Ohio Petroleum
Oklahoma City
Panhandle
Pensacola-Mobile
Permian Basin
Philippine
Pittsburgh Petroleum
Qatar
Roswell
Salt Lake Petroleum
San Joaquin Valley
Santa Maria
Saudi Arabia
Singapore
Snyder
South Louisiana
South Plains
Southwest Texas
Spindletop
Stavanger Petroleum
Thailand
Trans-Pecos
Trinidad and Tobago
Uintah Basin
United Arab Emirates
Victoria Area
West Central Texas
Western Australian
Western Venezuela Petroleum
Western Wyoming Rock Springs
Wichita Petroleum
Williston Basin
Wyoming Petroleum & Wind River Basin Subsection

STUDENT AFFAIRS

Student members at Delft U. (Netherlands) and Northwestern Michigan College (Traverse City, MI) organized the 49th and 50th student chapters. Student chapters now include:

U. of Alabama
U. of Alaska
Bee County College
U. of Cairo
U. of California
California Polytechnic University
U. of Southern California
Colorado Northwestern Community College
Colorado School of Mines
U. of Delft
Heriot-Watt U.
Hocking Technical College
U. of Ibadan
Imperial College
U. of Kansas
Kilgore College
Lincoln Trail College
U. of Southwestern Louisiana
Louisiana State U.
Louisiana Tech U.
U. of Technology, Malaysia
Marietta College
Michigan Tech U.
Midland Junior College
Mississippi State U.
U. of Missouri-Rolla
Montana Tech U.
Muskingum Area Technical College
New Mexico Inst. of Mining and Technology
Nicholls State U.
Northwest Michigan College
Oklahoma State U.
U. of Oklahoma
Pennsylvania State U.
Petroleum Training Inst.
U. of Pittsburgh
Robert Gordon's Inst. of Technology
Rogaland Regional College
U. of Santander
Stanford U.
Tanana Community College
U. of Texas

Texas A&I U.
Texas A&M U.
Texas Tech U.
Tulane U.
U. of Tulsa
U. of West Indies
West Virginia U.
U. of Wyoming

Some 500 students attended the General Student Session, "Achieving Success in Petroleum Engineering," and 200 attended the Student Officers' Training Workshop at the SPE Annual Technical Conference and Exhibition in Houston. The Outstanding Student Chapter Award went to the University of Texas at Austin for demonstrating the highest level of programming, membership development, and other key activities.

Paper contests in the Eastern, Gulf Coast, Rocky Mountain/Mid-Continent, Western, and European regions involved some 70 students from more than 20 colleges and universities. Winners in undergraduate and graduate categories were recognized.

SPE continued its work through AIME as a participating body of the Accreditation Board for Engineering and Technology (ABET). Ad hoc visitors serving as inspectors for petroleum engineering and technology programs through ABET visited seven schools. Proposed petroleum engineering program criteria changes made by SPE in 1983 were approved in 1984 and will become effective for the 1985 school year.

SUPPORT FOR EDUCATION

Undergraduate scholarship funds generated by the SPE Local Section General Scholarship Support Program totaled $246,630 for 1984-85, 9% more than in 1983-84. Sixty-seven local sections committed $167,880 and SPE committed $78,750 in matching funds. SPE and local sections have contributed more than $1 million during the past seven years to support undergraduate scholarships in petroleum engineering and related fields.

The Society funded 11 graduate Fellowships of at least $5,000 each during 1984 through SPE region and section awards.

The Gus E. Archie Memorial Scholarship, named for the Shell Oil Co. well logging pioneer, was awarded in 1984 for the first time. Recipient of $12,000 over four years is Peter Wisney, a freshman at Colorado School of Mines.

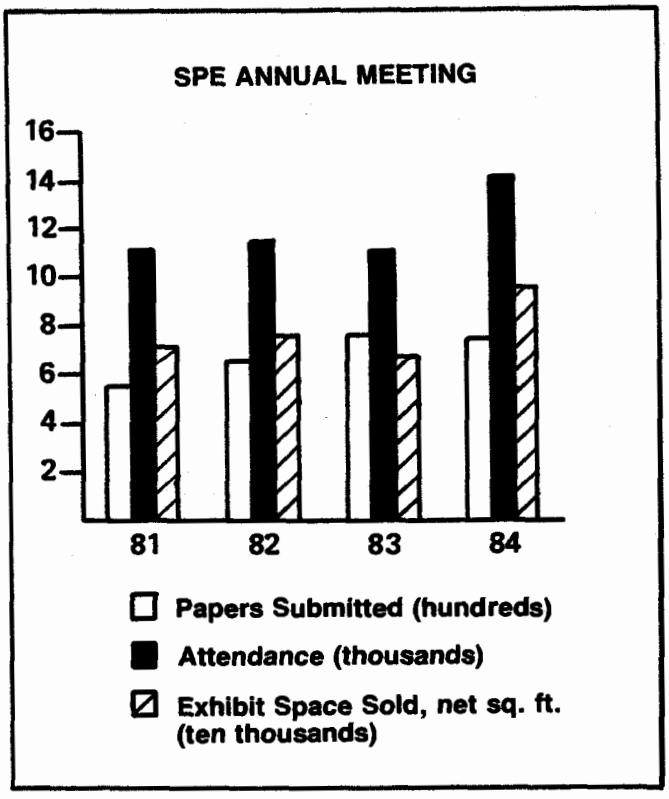
The PESA Scholarship Program, administered by SPE in cooperation with the Petroleum Equipment Suppliers Assoc., awarded $4,000 in scholarship funds to outstanding petroleum engineering students. Susan J. Simmons, Louisiana State U., received $1,400. Ronald E. Oligney, U. of Alaska-Fairbanks, received $1,400. Janice S. Young, Texas Tech U., received $1,200.

The Society affirmed its support for engineering education with three awards for excellence in teaching, research, and student support. Recipients of the 1984 SPE Distinguished Achievement Awards for Petroleum Engineering Faculty were Robert L. Whiting, Texas A&M U.; Ronald D. Evans, U. of Oklahoma; and George V. Chilingar, U. of Southern California.

MEETINGS

Record attendance at the 59th Annual Technical Conference and Exhibition in Houston was seen as one sign that the industry is beginning a recovery cycle. Total attendance at 14 regional and topical meetings held in 1984 exceeded 38,000.

The 16th Offshore Technology Conference, May 7-9 in Houston, had 2,773 registrants. Technical sessions featuring 177 papers and innovative topical luncheons concerning frontier drilling and production and the regulatory structure governing offshore safety were featured. OTC will return to the technical conference and exhibition format beginning in 1985.



Record registration, the largest ever technical exhibition, and standing-room-only attendance at sessions highlighted the 59th Annual Technical Conference and Exhibition. From Sept. 16 to 19, 14,133 registrants chose from among 249 technical papers and the exhibition involving 425 exhibits in 98,000 square feet of Houston's Astrohall. The keynote session on "Energy Outlook 1984: Shortage/Surplus" emphasized problem solving in field operations and produced optimistic projections of changing times for the industry.

The Offshore South East Asia Conference and Exhibition in Singapore Feb. 21-24 offered forecasts of regional economic activity and featured papers on drilling and production activities in the region. More than 12,000 engineers, scientists, and managers attended.

Some 650 people registered for the European Petroleum Conference in London October 22-24 where discussion centered on offshore technology developments in the North Sea. Keynote speaker was the Rt. Hon. Peter Walker, M.P., the U.K.'s secretary of state for energy. A round-table discussion on North Sea Prospects to Year 2000 featured industry experts.

1984 SPE MEETINGS

Meeting	Location	Registrants	Papers
Formation Damage Control Symposium	Bakersfield	386	29
Southeast Asia Show	Singapore	12,659	84
Permian Basin Oil and Gas Recovery Conference	Midland	735	22
Deep Drilling and Production Symposium	Amarillo	903	18
California Regional Meeting	Long Beach	2,348	56
Enhanced Oil Recovery Symposium	Tulsa	2,016	81
Offshore Technology Conference	Houston	2,773	177
Unconventional Gas Recovery Symposium	Pittsburgh	280	51
Rocky Mountain Regional	Casper	588	35
Forum Series	Jackson Hole	342	N/A
SPE 59th Annual Technical Conference and Exhibition	Houston	14,133	249
European Petroleum Conference	London	674	48
Eastern Regional Meeting	Charleston	677	27
Production Technology	Hobbs	137	19

PUBLICATIONS

During 1984 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 Society's three periodicals.

JPT, SPE's principal journal and monthly communication with members, presented 141 technical papers in 1984, complementing its coverage of Society events, programs, and issues of interest to its readers.

Circulation reached 16,250 for the bimonthly Society of Petroleum Engineers Journal, which published 74 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 2,200 pages of technical papers from these journals will appear in the 1984 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 1984. Finally, SPE distributed its 1984 membership directory to all members as the 13th issue of JPT. The 464-page Annual Review and Membership Directory issue included Professional Trends, Technology Review, SPE Annual Review, and 10th Annual Salary Survey features together with listings of SPE members.

The Monograph Committee finished work on its ninth volume, Well Logging I - Rock Properties, Borehole Environment, Mud and Temperature Logging, and supervised revision of the Cementing monograph. The SPE Board approved two additional monograph projects: Production Logging and Application of Tracers for Reservoir Characterization. The Textbook Committee completed its work on the second SPE textbook -- Applied Drilling Engineering. The first of a two-volume set on recovery methods, Waterflooding, also neared completion. SPE's revision of Petroleum Production Handbook is in production. The Society published a revised and consolidated standard of SPE Letter and Computer Symbols for Economics, Well Logging and Formation Evaluation, Natural Gas Engineering, and Petroleum Reservoir Engineering in December.

The Society added some 1,000 titles to the SPE Microfiche Collection (which includes more than 13,000 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.

CONTINUING EDUCATION

SPE sponsored more than 70 short courses for some 1,500 participants in 1984 -- more than four times the number in any previous year. The 12 courses at the Annual Meeting drew record attendance of 470.

The Continuing Education Committee plans to introduce four new short courses: Production Facility Design, Production Well Logging, Technical Communications for Engineers, and Applied Drilling Concepts. Other courses, including Oilfield Metallurgy and Corrosion Control Technology for Engineers, and Reserve Estimation Techniques, were being developed as programs for 1985.

New editions of videotapes for Fundamentals of Reservoir Engineering and Drilling Fluids were completed. Production began on three other programs for early 1985 release: Production Optimization Using Nodal Analysis, Economic Evaluation of Oil and Gas Investments, and Enhanced Oil Recovery Fundamentals. The committee also selected three additional videotape programs for production in 1985.

AWARDS

The Society's Honors and Awards program recognizes outstanding contributions by SPE members to petroleum engineering technology and to the profession of petroleum engineering. In 1984, the Society made the initial presentation of five new awards, the first additions to the Society's Awards program since 1966. The awards covered both technical and professional categories and are designed to complement existing awards.

The major SPE awards and 1984 recipients were:

Anthony F. Lucas Gold Medal	Joseph E. Warren, consultant
John Franklin Carll Award	Aziz S. Odeh, Mobil R&D Corp.
DeGolyer Distinguished Service Medal	E.C. Babson, Babson and Sheppard
Lester C. Uren Award	Keith H. Coats, Scientific Software/Intercomp

SPE Distinguished Service Award	Arlen Edgar, consultant Lyman L. Handy, U. of Southern California
Cedric K. Ferguson Medal	Steven G. Shryock, Chevron U.S.A. Inc.

Three of the new awards were established to recognize technical achievements in one of the major technical areas of petroleum engineering: drilling engineering, production engineering, and reservoir engineering. The 1984 recipients were:

Drilling Engineering Award	Keith K. Millheim, Amoco Production Co.
Production Engineering Award	Fred W. Gipson, Conoco Inc.
Reservoir Engineering Award	Henry J. Welge, retired consultant

Two new award categories were created in the professional area -- one for public service and the other to recognize outstanding professional commitments by SPE members under age 33. The Young Member Outstanding Service Award is a counterpart in the professional area to the Cedric K. Ferguson Medal in the technical category.

SPE Public Service Award	Dean A.McGee, Kerr-McGee Corp.
Young Member Outstanding Service Award	Philip C. Crouse, Southwest PetroCorp. Claudia N. Roberts, Conquest Exploration

Receiving SPE Distinguished Member certificates were Thomas C. Clopton, Scarth Oil & Gas Co.; L. Wally Holm, Union Science & Technology Div., Union Oil Co.; James R. Paul; Wilbur H. Somerton and Lyman L. Handy, U. of California College of Engineering; Henry J. Welge, retired consultant; and Robert P. Murray, Cities Service Oil & Gas Corp.

Receiving Regional Service Awards for exceptional contributions in eight SPE regions were: Region I, Jon E. Crawford, R.E. Frasch Co.; Wilbur H. Somerton, U. of California; and Norman B. Clark Jr., Union Oil Co. of California; Region III, Gifford G. McClaflin, Conoco Inc.; Region IV, Edward D. McCabe, Halliburton Services Co.; Region V, Eugene F. Motter, Cities Service Co.; Region VI, W. Carey Hardy, Sun E&P Co.; Floyd A. Pace, Amoco Production Co.; and Arthur K. "Deacon" Brown, Hughes Drilling Fluids; Region VII, James F. Lamb, NL Atlas Bradford; Charles E.

Jacobs Sr., KTX Management; Region VIII, Ray E. Storms, Oilfield Consultants Inc.; Region IX, Leo A. Schrider, Belden & Blake Corp.; H.C. "Slip" Slider, Ohio State U.

FINANCE

The Society's 1984 income from operations was $7,287,900 with expenses of $7,647,300. Overall SPE income was $8,269,800.

SPE HEADQUARTERS

More than 500 members and guests joined officers and directors of the Society and of the SPE Foundation at dedication ceremonies for the new SPE Headquarters facility on Aug. 15. The new 50,000 square foot building in Richardson, a suburb of Dallas, provides the first permanent home for SPE operations. SPE headquarters were established in Dallas in the mid-1940's. Since then, the Society had operated from leased space. The sparkling new Headquarters building, which SPE has leased for 20 years from the Foundation, represents the first phase of a multimillion dollar endowment program for the Foundation. Endowment income will permit the Foundation in future years to support ongoing programs of SPE and to fund new programs in the technical information dissemination area.

OFFICERS AND DIRECTORS

SPE officers and staff members strengthened communication efforts by visiting 55 local sections. Ten regional directors and four at-large directors represented Society-level committees and local sections on the SPE Board of Directors.

1984 SPE Officers and Directors

1984 President, James R. Jorden, Shell Oil Co.
1985 President, Kenneth W. Robbins, Otis Engineering Corp.
1983 President, T. Don Stacy, Amoco Production Co.
Treasurer, R. Lyn Arscott, Gulf Oil E&P Co.
Region I, Bill F. Burke, Cities Service Oil & Gas Corp.
Region II, Ken J. Stracke, Northwest Pipeline Corp.
Region III, S. Tommie Seitz, Diamond Shamrock Corp.
Region IV, Sam S. Mabry Jr., Cities Service Oil & Gas Corp.

Region V, Stephen G. Scott, Murphy H. Baxter
Region VI, Frank J. Schuh, ARCO Oil and Gas Co.
Region VII, Mark J. Costello, Gulf Oil E&P Co.
Region VIII, B. David Meltzer, Chevron U.S.A. Inc.
Region IX, John L. Moore, Mellon Bank N.A.
Region X, Brian A. Lavers, Shell U.K. E&P, and
George Innes, QGPC
At-Large, Chapman Cronquist, Cronquist Assocs.
At-Large, K. Terry Koonce, Exxon Co. U.S.A.
At-Large, Roland F. Krueger, Union Oil Co. of California
At-Large, W. Douglas Van Gonten, Texas A&M U.

SPE Staff Management

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

Respectfully submitted,

Dan K. Adamson
Executive Director

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 10/1/83 to 10/1/84 WAAIME programs continued to progress, especially the Scholarship Loan Fund. Membership figures however, again showed the effects of the unfavorable economic conditions in our industry. Our total number of members decreased by 222 to 2,141. At the end of the year our Sections numbered thirty seven, including Members-at-Large as a Section.

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 Sections to obtain a technical education in Mining, Metallurgical and Petroleum Engineering, or related earth science fields beneficial to the mineral industries. In 1983-84 funds advanced to students came to the sum of $101,450.00. 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 $33,000.00 and contributions from the Sections totaled $11,500.00. 35 loan recipients completed repayment, 30 graduated during the year. At the May 1984 National Board SLF Meeting 50 new loans were approved; they amounted to $106,000.00 for the school year 1984-85. Of the 50 new recipients (31 men and 19 women) 42 are undergraduates and 8 are graduate students. The major fields of study represented are Mining Engineering (10) Petroleum (8) Geology and Geological Engineering (17) Geophysical Engineering (2) Metallurgy and related fields (13). Since 1920, the WAAIME scholarship loans have amounted to $1,700,395.00.

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 Section members and is 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. Christenson. Another program recently acquired is "Mining and the Environment" from ASARCO.

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 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 five 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 and 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 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 as in the past, and we thank them all for their attention and assistance.

Sybil Kesten

Mrs. S. Norman Kesten
President, WAAIME

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

The American Institute of Mining, Metallurgical, and Petroleum Engineers is dedicated to advancing the knowledge of engineering in the fields of minerals, metals, materials and manufacturing and energy resources, and to undertaking programs addressing significant needs including education.