

THE INSTITUTE OF MARINE ENGINEERS

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PATRON: HER MAJESTY THE QUEEN

TRANSACTIONS



Volume 82, 1970



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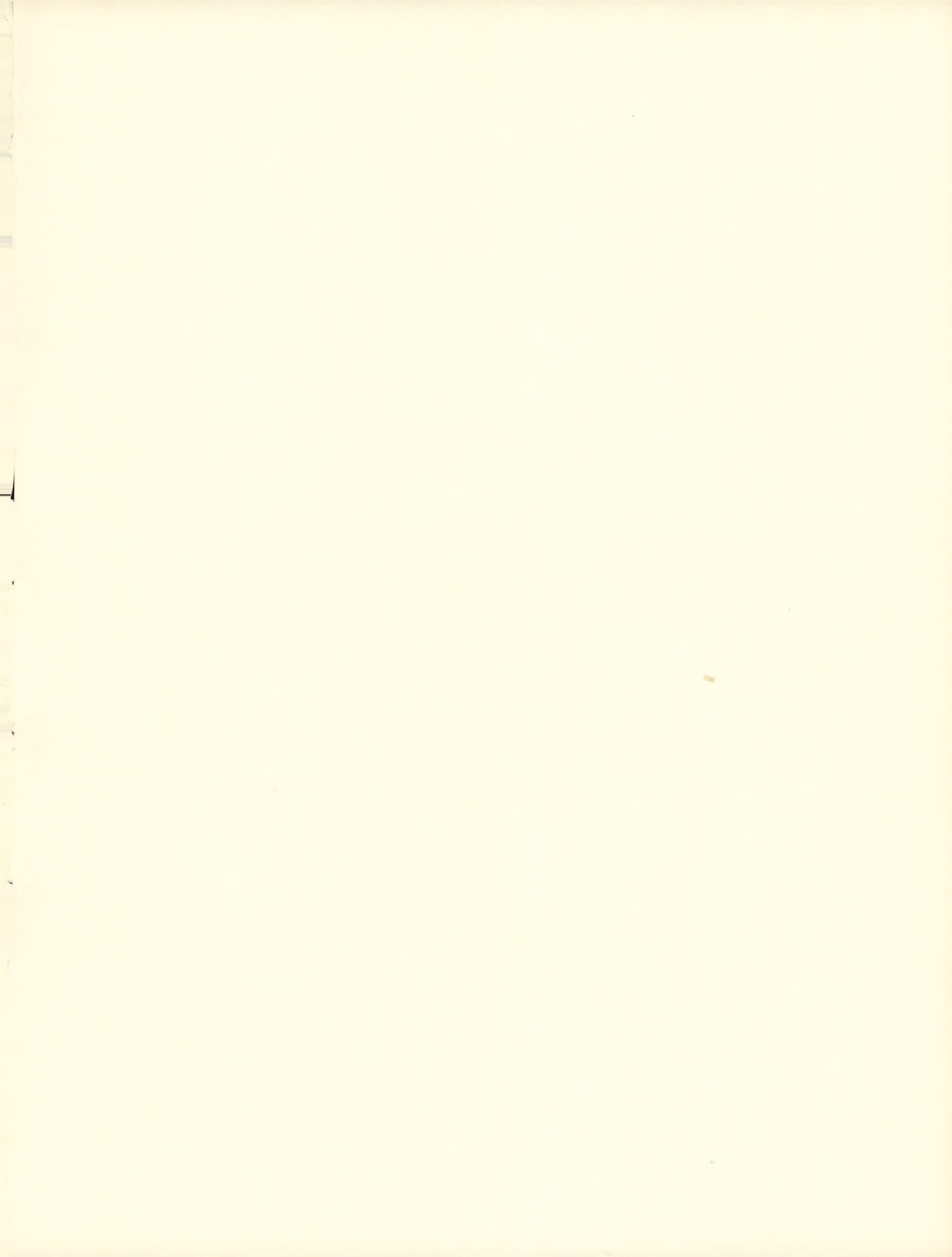
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Annual Report of the Council for 1969

1969 has seen many important events taking place, but before referring to these, sincere regret must be recorded that Mr. R. Munton, B.Sc., was unable to go forward for election as President because of illness. It is a pleasure to be able to report that Mr. Munton is now fully restored in health. The Council was very fortunate in that Mr. F. B. Bolton, M.C., agreed to continue as President for the year 1969/70 and took a particularly active part in Imas '69.

BRANCH AND OVERSEAS ACTIVITIES

a) Divisions

Australia and New Zealand

The Australia and New Zealand Division was inaugurated at a meeting of the representatives from the Australian and New Zealand Branches on 14th November 1969, with a Divisional Committee being set up consisting of one representative from each branch in Australia and New Zealand with the Vice-President for Australia and New Zealand, Captain R. G. Parker, O.B.E., R.A.N. as Chairman.

The Division is examining the tasks of immediate urgency that are before it at the present time, one of which is the obtaining of a suitable candidate for the post of Secretary. It has been agreed that for the time being, Clunies Ross House in Melbourne will become the headquarters of the Institute's activities.

The immediate tasks facing the Divisional Committee and the Secretary are:

- 1) to co-ordinate the activities of the Branches;
- 2) to service the Australia/New Zealand Divisional Committee and Sub-Committees;
- 3) to examine proposals to expand the membership and improve the services to members;
- 4) to prepare a report on education facilities and educational requirements for marine engineers;
- 5) to arrange for the collation of material for the overseas edition of the *Marine Engineers Journal*

India

The Indian Division has been re-organized so that:

- i) all branches should have an opportunity to take part in the Divisional Council's activity;
- ii) important tasks are carried out with urgency.

Agreement to continue the Division Office in Bombay has required greater representation on the Divisional Council from Bombay because of the large distances involved between Bombay and other cities. The Institute with its limited funds is not able to meet expenditure on travelling, nor are members able to spend an excessive amount of time travelling.

The new Council responsible for the Division will be on the following lines:

The Vice-President for India,
The Chairmen of all Branches in India, or
The Local Vice-Presidents (as long as the present incumbents continue to hold these posts),

together with, in the first instance, the following:

Mr. K. Parthasarathy, Chief Surveyor, Government of India,
Mr. T. M. Sanghavi, B.E., at present Honorary Secretary, of the Indian Division,

together with:

Mr. R. C. Mohan, Deputy Chief Surveyor, Director General of Ships,
Mr. S. A. Samson, Senior Superintendent Engineering, Esso Co. Ltd.

It is expected that ability to participate by Branches in the organization of the Division will stimulate a higher degree of activity. This will be complemented by a greater degree of effectiveness from the Divisional Office when it obtains new permanent staff, now being sought.

The Divisional Council's immediate tasks include the need:

- a) to progress the Education Report on the training of marine engineers referred to later;
- b) to consider procedures for the election to the Council after a 12-month interim period;
- c) to generate new matters of policy;
- d) to generate full activity of Branches
- e) to report fully to London on activities of Division and Branches;
- f) to ensure effective running of the Division Office;
- g) to seek greater recruitment to membership of the Institute.
- h) to seek collaboration with:
 - i) Government;
 - ii) Institute of Engineers (India) and other appropriate bodies.

b) Branches

All Branches have maintained and in many cases increased the activities for members within their area. Details of the activities are contained in the Branch reports shown on pages A14-A18. The Council place great importance on regular consultation with Branches and a paper covering 'The Future Organization of Branches' is being considered by the United Kingdom Branch Committees. The Council will consider steps to be taken to implement proposals arising from this report and will subsequently consider similar steps for overseas Branches and Divisions.

The Transvaal Branch was formally inaugurated on 9th April 1969, Mr. D. E. Willis being the Honorary Secretary.

c) Visits

During October and November, the Chairman of Council and the Director and Secretary, consequent upon their attendance at the Commonwealth Engineering Conference held in Delhi from 2nd-7th November 1969, visited the Institute Branches in West Pakistan, India and Ceylon. A full report of this visit appeared in the February 1970 issue of *Marine Engineers Journal*. The highlights of the journey were the meetings with the members in the various centres in addition to Delhi as follows: Karachi, Calcutta, Vishakhapatnam, Madras, Cochin, Bombay, Colombo.

The opportunity was taken to have discussions with the members on many topics including registration of engineers in India, expansion of Institute activities, growth of membership, the re-arrangement of the Division referred to earlier in the report.

Whilst in Delhi, the opportunity was taken to have discussions with Dr. Triguna Sen, Minister of Petroleum and Chemicals, Mr. K. Raghyramiah, Minister of Shipping and Transport, Dr. Nagendra Singh, Private Secretary to the President of India, Dr. B. D. Nag Chaudhuri, member of the Planning Commission, on the subject of Education and Training of marine engineers in India, and their place in the development of the nation. From these discussions, it was agreed that the Indian Division should produce a report on the Education and Training of marine engineers in India.

The President, Mr. F. B. Bolton, represented the Institute at the Autumn meeting of the Schiffbautechnische Gesellschaft in Hamburg.

Annual Report of the Council for 1969

CONFERENCES

1) *The International Marine And Shipping Conference 1969.*
Organized by the Institute this was a conspicuous success.

Expressed in simple facts:	
Number of participants	1410
Countries represented	27
Journals and other organizations represented	44
Number of journals displayed in Library	
U.K.	22
Overseas	85
	107
Number of papers presented	79
Number of pages of advertising obtained (Revenue £8000):	
In advance copies	216
In Proceedings	240
Average attendance at Plenary Papers meetings	135
Average attendance at Specialist Session Meetings	64
Highest total attendance at any one time Monday, 16th June, 11.30-12.30 hrs. Specialist Sessions—four halls	321
Number of technical visits	22
Number of social functions	11
Number of tours	19

Students from the U.K. branches attended the Conference at the invitation of Council.

A report of the Conference appeared in the August issue of *Marine Engineers Journal*, and the publishing of the papers together with the discussions is now in hand.

2) *Domestic Conference (8th-9th June 1969)*

The Domestic Conference which preceded Imas '69 was an occasion when representatives from every Branch of the Institute with the exception of Hong Kong (illness) and the Irish Republic (inability) gathered to discuss matters of considerable importance for the future development of the Institute. A full report of the Conference is being considered by the Council including comments on professional standards, membership, students, education, branch and learned society activities, and in particular the following points:

That more effort should be made to gain recognition of:

- C.Eng., especially overseas;
- the acceptance of the Extra First-Class Certificate (following C.E.I.'s example);

although there was no common thread or understanding on registration between various countries.

In discussing the impact of the new By-Laws on membership, it was suggested that the value of the new Associate grade should be emphasized and that greater authority could be given to local membership committees.

A technical enquiry service for seagoing members was suggested.

Many suggestions were made to encourage Student members to join the Institute and to retain their membership.

It was requested that the provision of refresher courses, compiling of a brochure listing courses, grants, and scholarships, statistical information on educational standards overseas, mathematics classes for seagoing engineers, allowing accumulated certificate leave for concentrated study for Board of Trade examinations, should all be investigated.

The amount of money and number of awards devoted to training should be increased.

Many suggestions were made about Branch activities and their effectiveness including requests for more frequent visits overseas of Institute's officers, availability of slides and papers, the provision of a technical question and answer

service, the development of the divisional structure, sponsored lecture tours and the provision of a news sheet for seagoing members.

Proposals about Branch representation on Council are to be re-assessed in any further revising of the By-Laws.

On the learned society function of the Institute, recommendations about the form, contents and distribution of publications have been acted upon and the suggestions that regular local conferences be held, has been referred back to the Branches themselves.

The general conclusions reached were:

- 1) the Divisions should prepare a statement for Council as to the way they thought their Division should be organized, the completion of discussions between London and the Divisions probably taking two years;
- 2) all representatives were emphatic in rejecting the idea that national groups of members would ultimately be incorporated locally as separate bodies and affiliated to the Institute; they wished to remain an integral part of the Institute;
- 3) Council Minutes could assist considerably in communications between the Council and Branches, this applied particularly to overseas Vice-Presidents and facilities might be offered for classified versions of Council Minutes to be sent to overseas Branches;
- 4) the position should be reviewed after six months to ascertain progress.

3) *The Commonwealth Engineering Conference (2nd-7th November 1969)*

The Conference, referred to above, was attended by the Chairman, and Director and Secretary.

4) *J.B.C.S.A. Conference*

The Institute has accepted the invitation to organize a Conference on behalf of the Joint British Committee for Stress Analysis, probably to be entitled "The Recording and Interpretation of Engineering Measurements" to take place in April 1972.

5) *LECO 70 (4th-7th May 1970)*

The London Engineering Congress organized by the Council of Engineering Institutions is being supported by the Institute to the extent of two papers entitled "Operation, Maintenance and Manning Problems in Large Tankers" by Commander E. H. W. Platt, M.B.E., R.N., and "New Developments in Marine Propulsion" by Mr. B. Hildrew, M.Sc. (Mr. A. L. Harrison of the Royal Institution of Naval Architects represents both institutions on the Organizing Committee, and Mr. A. E. Franklin (Assistant Secretary Technical) is on the Papers Committee).

PUBLICATIONS

After much consideration, the Council has agreed a recommendation that the Overseas Supplements for India and Canada should cease and in their place, an airmail edition of *Marine Engineers Journal* should be posted to all overseas members (outside Europe) monthly. The expected additional cost of this service will be about £2500 per annum, but Council feels that it is the responsibility of the Institute to provide an up-to-date link with the members all over the world. The TRANSACTIONS are taking three months to arrive in some parts of the world, by which time, some of the contents, the *Marine Engineers Journal* in particular, are no longer topical. The *Student Transactions*, which were issued every two months, have been replaced with monthly editions of *Marine Engineers Journal*.

SPECIALIST SECTIONS

No specialist meetings were held during the year because of the coverage of these subjects at Imas '69. A new specialist section on Vibration is being formed and proposals are afoot to form one on Business Management.

The Sections now are: Marine Electrical Engineering, Education, Materials, Ocean Engineering.

Annual Report of the Council for 1969

COLLABORATION WITH OTHER INSTITUTIONS

The Institute has joined with the Institution of Mechanical Engineers, the Royal Aeronautical Society and the Institution of Production Engineers to collaborate on a number of learned society functions. At the present moment discussions are taking place on the following subjects: Hovercraft, Automatic Control, Tribology, Manufacture and Management, Environmental Science and Technology, Underwater Engineering. The Institute has taken on the responsibility for Underwater Engineering.

BY-LAWS

The proposed new By-Laws as approved by the members at the Annual General Meeting on 29th April 1969, were submitted to the Privy Council for approval and as announced in the November issue of the TRANSACTIONS, it has not been possible to implement them on the date proposed, namely, 1st December 1969, because the Privy Council has received some objections to certain of the new By-Laws dealing with the proposed membership structure. The Privy Council has referred these objections to the Institute for observations. The existing By-Laws therefore will continue to operate until further notice.

FUTURE DEVELOPMENT

The Council continues to examine ways and means by which

the substantial capital value of the Memorial Building can be used to the best advantage, there being a number of possibilities which could influence the quality of the service rendered to the members and which could extend the authority and usefulness of the Institute.

COUNCIL OF ENGINEERING INSTITUTIONS

A report on the activities of C.E.I. is appended on page A19.

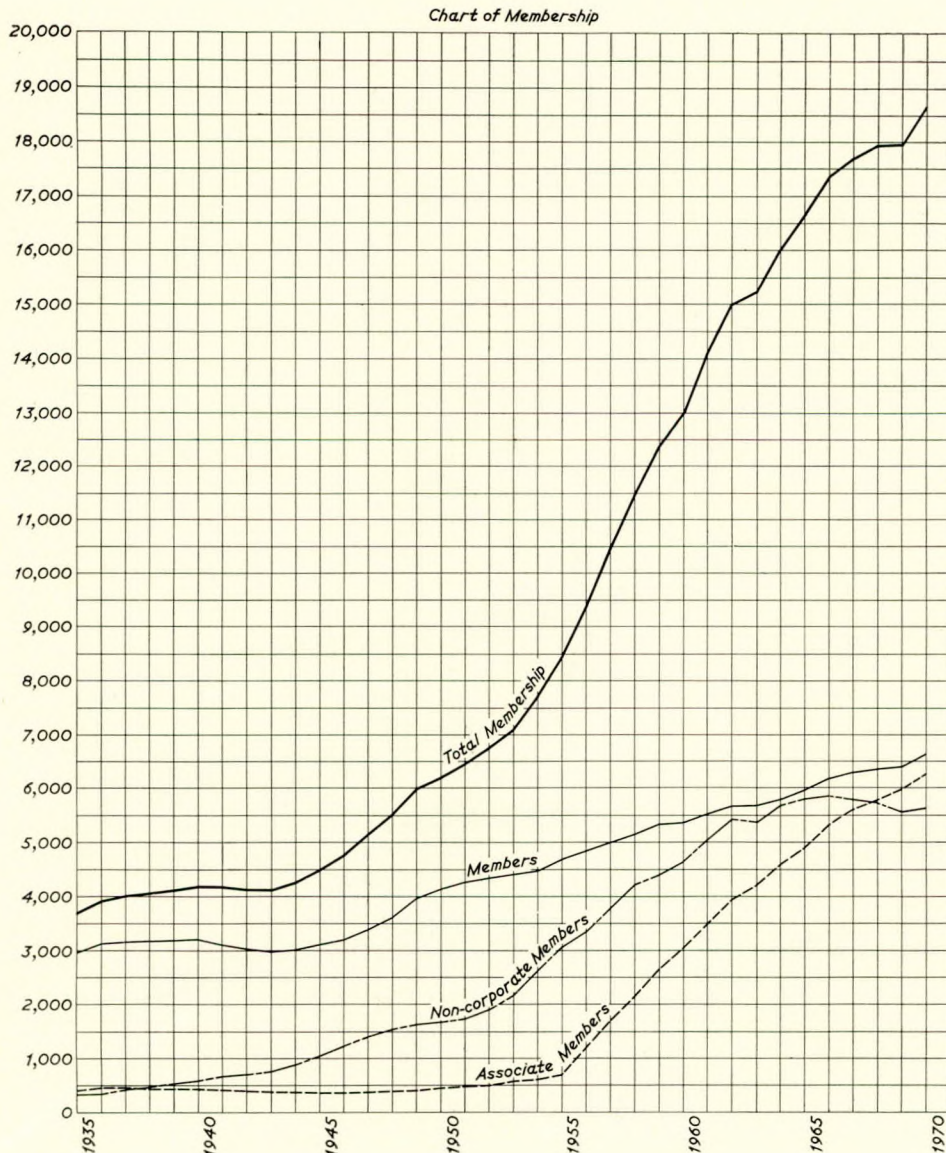
STAFF

Mrs. B. M. Baker, perhaps better known as Mrs. B. M. Sullivan, who had been on the Institute staff since February 1950, retired in October 1969 after nearly 20 years service. A presentation from the members of a silver rose bowl and a cheque was made to Mrs. Baker by the President on the occasion of the Presidential Address.

Mr. S. Smith's appointment as Office Manager, announced in the 1968 Annual Report, was ceased upon his resignation. The opportunity was taken to re-arrange the duties of this post, and a new post of Finance Officer has been created, to which Mr. L. K. Morelli has been appointed.

MEMBERSHIP

The changes in the membership are shown in the accompanying table and chart. There is this year an additional column



Annual Report of the Council for 1969

which shows the corrected membership figure. The existing table has been built up over many years and only since the recent computerization of the membership records has it been feasible to have an accurate count of members of each grade. The corrected total will be the total carried forward for next year.

The number of elections, 1394, is 158 higher than in the preceding year. The number of transfers has remained about the

same, 394, compared with 364 last year. The number of those who have died or resigned, 249, compares with 319 last year, while the number deleted, due to Council's continuing policy of applying more rigidly By-Law 38 concerning the non-payment of subscriptions, has nevertheless fallen appreciably from 889 last year to 629 this year. The present membership is therefore now 18 559.

MEMBERSHIP TABLE

GRADE	Total 31st Dec. 1968	Transfer		Elected	Died	Resigned	Lapsed	Total 31st Dec. 1969	Increase or Decrease during 1969	Corrected totals 1st Jan. 1970
		To	From							
Past Presidents*	16							16		16
Honorary Members†	5							5		5
Members	6385	127		230	77	54	70	6541	+156	6634
Associate Members	5968	169	112	352	13	17	107	6240	+272	6269
Companions	21				2	1		18	- 3	16
Associates	1583	12	46	153	10	13	57	1622	+ 39	1588
Graduates	1086	65	129	120		13	54	1075	- 11	1101
Students	1733	21	65	334	2	34	180	1807	+ 74	1854
Probationer Students	1144		42	205	3	10	161	1133	- 11	1076
Totals	17 941	394	394	1394	107	142	629	18 457	+516	18 559

* This figure includes 1 Honorary Member
6 Members
2 Companions

† This figure includes 2 Members

ACCOUNTS

1) General Revenue Account

The excess of expenditure over income, £9609, reflects the exceptional activity during the year combined with overall increases in the cost of the day to day requirements in the running of the Institute. The subscription income has risen by £4843 in line with the increase in membership.

Investment income has fallen by £2236 there being less funds available during the year to place on temporary investment.

Membership expenditure has increased by £5359 mainly accounted for by an increase of £2789 in the net cost of the Transactions and Publications and £2074 in Branch expenditure. There has also been an increase of £1284 in the contribution to the Council of Engineering Institutions.

Establishment expenditure has increased by £1216 due entirely to an increase in housekeeping costs.

An increase of £7107 in administrative expenditure reflects the general increase in costs particularly in salaries, stationery and postage.

Special costs arising in 1969 concerned with internal reorganization are shown at the foot of the account as a special charge against the accumulated balance brought forward.

2) Memorial Building Revenue Account

This account shows a surplus of £33 451, a reduction of £1597 on last year. A total of £37 000 has been appropriated to reserve funds leaving a balance of £15 728 to be carried forward to the accumulated fund. Expenditure on revenue

reserves including direct Imas '69 expenditure and the respective balances at the 31st December are set out in Note 3.

3) Balance Sheet

The accumulated funds and revenue reserves now stand at £179 676 compared with £208 291 at the 31st December 1968. The Institute's investment advisers, Robert Fleming and Company Limited, have kept the Institute's investments under review and a summary of the investment portfolio, together with a statement on the movements in the portfolio during the year, is shown under Note 5.

As counsel's opinion confirmed that the American securities referred to in last year's report were considered technically in breach of the rules of the Institute, these were sold and the proceeds reinvested in other American securities of equal dollar value.

4) General

It had been anticipated that revised rates of subscriptions to apply from the 1st January 1970, would be based on the new membership structure incorporated in the By-Laws approved at the last Annual General Meeting. It became apparent, however, that the approval of the Privy Council to the new By-Laws would not be received in time for the revised membership structure to operate from the 1st December 1969. Council, therefore, decided that new rates of subscription required from the 1st January 1970, to meet the increased costs would apply to the current membership grades.

Annual Report of the Council for 1969

SUMMARY OF THE YEAR'S ACTIVITIES

COUNCIL

At their meeting on the 19th May the Council elected Mr. B. Hildrew, M.Sc., as Chairman of Council and Mr. H. E. Upton, O.B.E., as Vice-Chairman of Council for the 1969-70 session.

The Council was sorry to receive during the year the resignation of Captain N. J. H. D'Arcy, R.N.

CORRESPONDING MEMBERS

During the year the Council appointed Mr. R. A. W. Mayes as Corresponding Member for Barrow, vice Mr. R. McVie, and Mr. A. Buchan, Corresponding Member for St. John, New Brunswick, vice Mr. A. E. Burmedge.

Mr. M. Adam, Corresponding Member for the Persian Gulf died during the year. No appointment has yet been made.

MEETINGS HELD IN LONDON

In addition to the 80 papers presented at Imas '69, 10 papers were presented and discussed at ordinary meetings of the Institute. There were also 6 student meetings, 2 informal lunch time meetings and in December a series of weekly lunch time film shows was started with the intention of continuing into the new year.

Other meetings were:

The Lloyd's Register of Shipping Award Lecture in March, and on the 30th October when the Institute was host to a meeting of the C.E.I. Examiners and Moderators.

INSTITUTE GRANTS FOR EDUCATIONAL PURPOSES

Sixteen Students taking the Marine Engineering Degree courses at the Universities of Newcastle and Surrey were in receipt of Marine Institute grants during 1969 and at the end of the year 16 university students and 3 undergoing courses for the Extra First Class Certificate were under consideration for Institute grants.

INSTITUTE AWARDS

Because of the large number of papers under consideration, due to Imas '69, no awards have yet been announced for the Denny Gold Medal, the Institute Silver Medal and the Herbert Ackroyd Stuart Award.

Extra First Class Engineer's Certificate Examination—Institute Award. The Institute Silver Medal for the candidate obtaining the highest marks in the Board of Trade's examinations in 1969 has been awarded, on the recommendation of the Chief Examiner of Engineers, to R. G. Low (Associate Member).

The W. W. Marriner Memorial Prize, value £5 for the best Engineering Knowledge script written by a candidate in the Board of Trade's examinations for the Second Class Engineer's Certificate of Competency, has been awarded, on the recommendation of the Chief Examiner of Engineers to C. L. Stretton.

Extra First Class Certificate Course—Institute Award: No award has been made this year.

The names of the winners of the *Frank Roberts Award, Ordinary National Diploma Course Institute Awards*, and of the Prizes for the *Study of Heat Engines* are published in the April 1970 issue of *Marine Engineers Journal*.

SCHOONER "SIR WINSTON CHURCHILL"

Mr. H. Alexander (Student) and Mr. P. S. Wickham (Student) were nominated to fill the Institute's berth for a cruise on the schooner from the 27th July to the 19th August 1969.

HONOURS

Council congratulates the following members upon whom Her Majesty Queen Elizabeth II has conferred honours during the year:

H. McNeil, C.B.E. (Companion)—Knight Bachelor.
Rear-Admiral L. E. S. H. Le Bailly, O.B.E. (Member)—C.B.
E. St. J. Tuck (Member)—C.B.E.
Eng. Cdr. M. B. Jermyn, R.N. (Member)—O.B.E.
G. C. Fletcher (Member)—O.B.E.
E. G. Soanes (Member)—B.E.M.

DEATHS

Amongst losses by death recorded during the year, Mr. T. W. Bennett, B.Sc., former Member of Council will be particularly remembered for his services to the Institute.

ANNUAL COMMEMORATION SERVICE

The Annual Service held at the Church of St. Olave's, Hart Street, London, E.C.3, on Monday, 11th November was conducted by the Reverend L. E. M. Claxton, M.A., M.C., A.R.C.M., and the Lesson was read by the President.

REMEMBRANCE DAY

Mr. J. McAfee (Vice-President) laid a wreath at the Mercantile Marine War Memorial, Tower Hill, London E.C.3, on Sunday, 9th November, and Mr. W. J. Ferguson, M.Sc., (Vice-President) represented the Institute at the Service in Westminster Abbey.

SOCIAL EVENTS HELD IN LONDON

The following social functions have been held:
Annual Dinner at Grosvenor House, Park Lane, London, W.1. on 14th March, attendance 1403.
Cocktail Party following the Presidential Address at the Memorial Building, on 30th September, attendance 124.
Annual Conversaciones at Grosvenor House, Park Lane, London, W.1. on 4th and 19th December, attendance 1009 at both functions.

B. HILDREW (*Chairman of Council*)

J. STUART ROBINSON (*Director and Secretary*)

THE INSTITUTE OF MARINE ENGINEERS

BALANCE SHEET

31st DECEMBER 1969

31.12.68				31.12.68	
£	£	£	£	£	£
428,342	Capital Fund (Note 1)	...	...	443,342	
270,000	Loan Capital (Note 2)	...	...	255,000	
Capital Reserve Fund					
11,000	The Memorial Building Redemption Fund			12,000	
<u>709,342</u>				<u>710,342</u>	
Accumulated Funds					
93,451	General Revenue Account...	...	...	81,019	
19,277	The Memorial Building Revenue Account			15,728	
<u>112,728</u>				<u>96,747</u>	
Revenue Reserve Funds (Note 3)					
Amounts set aside against future specified heads of expenditure					
95,563				82,929	
<u>208,291</u>				<u>179,676</u>	
<u>917,633</u>				<u>890,018</u>	
4,331	Social Events Account...	...	...	4,251	
Awards and Prize Funds (Note 4)					
6,502	Capital	...	...	6,720	
1,149	Income	...	...	1,338	
<u>7,651</u>				<u>8,058</u>	
<u>£929,615</u>				<u>£902,327</u>	

31.12.68				31.12.68	
£	£	£	£	£	£
Fixed Assets					
691,084	Leasehold Property (The Memorial Building)	691,084	—	691,084	
16,670	Furniture and Fittings	40,955	21,785	19,170	
<u>707,754</u>		<u>732,039</u>	<u>21,785</u>	<u>710,254</u>	
Investments (Note 5)					
173,044	Quoted Securities			163,590	
— Sinking Fund Policies (Note 6)					
Current Assets (Note 7)					
62,875				61,010	
26,040	Less: Current Liabilities (Note 8)			44,836	
<u>36,835</u>				<u>16,174</u>	
<u>917,633</u>				<u>890,018</u>	
Social Events Account					
4,331	Cash at Bank and Other Assets ...			4,251	
7,651	Awards and Prize Funds (Note 9) ...			8,058	
<u>£929,615</u>				<u>£902,327</u>	

Annual Report of the Council for 1969

REPORT OF THE AUDITORS TO THE MEMBERS OF THE INSTITUTE OF MARINE ENGINEERS

We have audited the above Balance Sheet and annexed Accounts and have obtained all the information we have required. We have verified the Investments, Bank Balances, Insurance Policies, Title Deeds and Stocks by means of certificates.

In our opinion the Balance Sheet and Accounts have been properly drawn up so as to exhibit respectively, together with the explanatory Notes, a true and fair view of the state of the Institute's affairs as at 31st December, 1969, and of the income and expenditure for the year ended on that date.

2 ARUNDEL STREET,
STRAND,
LONDON, W.C.2.
12th March, 1970

ALLFIELDS,
Chartered Accountants.

GENERAL REVENUE ACCOUNT

YEAR ENDED 31st DECEMBER 1969

Year ended
31.12.68
£ £

Year ended
31.12.68
£ £

		£	£	£
	Membership Expenditure			
16,530	Transactions and Publications (Note 11)		19,319	
500	Year Book Expenses Approp- riation (Note 3)		—	
745	Indian Division Expenses	957		
1,814	Canadian Division Expenses	1,885		
1,718	Overseas Branch Expenses	2,183		
4,062	Home Branch Expenses	5,671		
244	Specialist Section Expenses			
1,270	Travelling and Accommodation	1,353		
			12,049	
3,925	Library		3,620	
527	Lecture Expenses	588		
20	Junior Lecture Expenses	16		
			604	
5,475	Subscription to the Council of Engineering Institutions		6,759	
206	Examination Expenses and En- grossing of Certificates		87	
254	Prizes		211	
37,290			42,649	
	Establishment Expenditure			
8,050	Housekeeping and Cleaning		9,465	
1,826	Fuel and Lighting		1,808	
247	Insurance		293	
2,500	Repairs Equalisation Appropriation (Note 3)		2,500	
2,220	Depreciation of Furniture and Fittings		1,993	
14,843			16,059	
	Administrative Expenditure			
34,803	Salaries and Pensions		38,621	
4,576	Stationery and General Printing		5,793	
3,689	Postage and Telephone		4,995	
312	Maintenance of Equipment		471	
800	Audit Fee		500	
185	Professional Fees		441	
	Donations and Contributions to Other Bodies		283	
1,085	Sundries		1,777	
45,774			52,881	
957	Surplus for the Year carried down			
£98,864			£111,589	
(957)	Deficit for the Year brought down		9,609	
	Costs associated with internal re-organisation			
	Computer Costs		2,758	
—	Staff Costs		2,394	
			5,152	
330	Provision for depreciation of Book Stocks		603	
	Balance at 31st December, 1969 carried			
93,451	forward		81,019	
£92,824			£96,383	

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		£	£
	Membership Income		
2,095	Entrance Fees		2,622
84,667	Subscriptions (Note 10)		89,510
86,762			92,132
11,940	Investment Income (Note 5)		9,704
	Rent Receivable		
162	Hire of Hall and Council Room		144
	Deficit for the Year carried down		9,609
£98,864			£111,589
	Balance at 31st December, 1968 brought		
93,343	forward		93,451
103	Life Subscriptions Received		410
(622)	Surplus on Sale of Investments (Note 5)		2,522
£92,824			£96,383

Annual Report of the Council for 1969

THE INSTITUTE OF MARINE ENGINEERS

NOTES ON ACCOUNTS

31st DECEMBER 1969

1. Capital Fund		£
Balance at 31st December, 1968	... ..	428,342
Appropriation from Memorial Building Revenue Account	... ..	15,000
		£443,342
 2. Loan Capital		 £
The Church Commissioners		
Mortgage at 5½% per annum	... ..	212,500
Mortgage at 6¾% per annum	... ..	42,500
		£255,000
Secured on the Memorial Building and repayable by annual instalments of £15,000.		

3. Revenue Reserve Fund

	<i>Balance</i> 31.12.68	<i>Appropriations from</i> <i>Revenue Accounts</i>		<i>Expenditure</i> <i>during the</i> <i>Year</i>	<i>Balance</i> 31.12.69
	£	£	£	£	£
		<i>General</i>	<i>Memorial</i> <i>Building</i>		
Staff Fund	4,249	—	—	1,013	3,236
Institute Premises Repairs Equalisation Account	958	2,500	—	3,128	330
Building Premises Repairs Equalisation Account	887	—	5,000	4,881	1,006
Building Contingency Fund	10,000	—	5,000	2,567	12,433
Conference Fund	13,818	—	8,000	17,476	4,342
Year Book Expenses	1,863	—	—	—	1,863
Development Fund	17,655	—	8,000	9,702	15,953
Education Fund	46,133	—	—	2,367	43,766
	£95,563	£2,500	£26,000	£41,134	£82,929

Note: Expenditure during 1969 on Conference Fund represents the direct cost of I.M.A.S. '69 and the immediately preceding Domestic Conference.

	Capital	Income		Accounts	
	Accounts	Balances	Income	Awards	Balances
	£	31.12.68	£	£	31.12.69
General					
Akroyd Stuart Award	700	319	32	—	351
W. W. Marriner Prize	230	51	14	5	60
Denny Gold Medal (Denny, Stephen and Lord Inverforth Awards) ...	735	147	41	14	174
Extra First Class Certificate Award (Jacobs, Murdoch, Robertson and Girdwood Awards)	436	12	24	25	11
Frank Roberts Award	221	29	13	8	34
Diesel Engine Prizes (These prizes have been built up by means of a covenanted donation and accrued interest from P. Jackson, Esq., M.Sc.)	1,398	—	38	—	38
Administered as Trustees					
William Theodore Barker Award	3,000	591	179	100	670
	£6,720	£1,149	£341	£152	£1,338

5. Investments

A) At 31st December the Institute's Investment Portfolio was composed as follows:

1968		1969	
£		£	£
81,451	British Government Securities	75,811	
5,000	Cash held for investment	6,000	81,811
62,415	British Equities	56,102	
24,178	American Equities	25,677	81,779
£173,044	Book Cost		£163,590
£205,395	Market Value		£174,799

B) Movement on the Portfolio during the year may be summarised as follows:

	Purchases at Cost	Sales	
		Cost	Proceeds
	£	£	£
British Government Securities	—	5,640	5,326
British Equities	4,483	10,796	13,632
American Equities*	12,694	11,195	11,195*
	£17,177	£27,631	£30,153

* During the year three American Equity holdings were sold and the proceeds re-invested in other American Equities. Other than the surrender required under H.M. Treasury Exchange Control Regulations, the dollar proceeds were at no time remitted to the United Kingdom, and those dollars surrendered were immediately repurchased. Accordingly the Book Cost of the American Equities purchased has been included at the cost price of the original holdings plus the dollar premium paid on the re-purchase of the dollars surrendered under the Exchange Control Regulations.

C) Investment Income for the Year was derived from the following sources:

1968		1969	
£		£	£
9,263	Investment Portfolio as above	8,205	
2,684	Temporary Deposits of working cash balances	1,499	
£11,947		£9,704	

6. Sinking Fund Insurance Policies

Single Premiums to:
Assurance Company

Date of Maturity

Payment Secured

						£
Royal Exchange	1st November	2011	...	...	...	10,000
Royal Exchange	10th June,	2012	...	...	...	10,000
Canada Life	10th June,	2012	...	...	...	1,000
Atlas	10th June,	2012	...	...	...	1,000
Sun Life	10th June,	2012	...	...	...	1,000
						£23,000

(The present Surrender Value of the above policies is £5,556)

7. Current Assets

				£	1968 £
Stocks on Hand at Cost, less provisions for possible depreciation	...	...	...	18,310	19,033
Sundry Debtors and Prepayments, less provisions for doubtful debts	...	...	...	16,902	13,835
Tenants for Rent and Service Charges	...	...	...	3,879	14,430
Cash, Current Bank Accounts and Short Term Deposits	...	...	...	21,919	15,577
				£61,010	£62,875

8. Current Liabilities

				£	£	1968 £
Sundry Creditors and Accrued Charges	...	...	...		29,394	20,006
Mortgage Interest Accrued—Gross	...	...	...		5,422	5,760
Income Tax: Payable	...	...	...	9,155		3,109
Less: Recoverable	...	...	...	1,289		(4,422)
					7,866	
Unexpired Subscriptions (Note 10)	...	...	...		2,154	1,587
				£44,836		£26,040

9. Awards and Prize Funds

Investments

				£	£	£
Akroyd Stuart Award						
£915 3½% Conversion Loan at Cost	...	...	...		698	
W. W. Marriner Prize						
£261 5½% Treasury Stock 2008/12 at Cost	...	...	...		230	
Denny Gold Medal Award						
£100 3½% War Loan at Par	...	...	...	100		
£687 5½% Treasury Stock 2008/12 at Cost	...	...	...	635		
					735	
Extra First Class Certificate Award						
£200 2½% Consolidated Stock as valued in 1919	...	...	...	119		
£343 5½% Treasury Stock 2008/12 at Cost	...	...	...	317		
					436	
Frank Roberts Award						
£239 5½% Treasury Stock 2008/12 at Cost	...	...	...		221	
Diesel Engine Prizes						
£1,787 5½% Treasury Stock 2008/12 at Cost	...	...	...		1,398	
William Theodore Barker Award						
£3,247 5½% Treasury Stock 2008/12 at Cost	...	...	...		3,000	
						6,718

(Market Value at 31st December, 1969 £4,739—1968 £4,934)

Cash at Bank	...	...	...	...	...	1,340
						£8,058

	1969	1968		
	Re- ceived £	Un- expired £	Net £	Net £
Members	37,690	657	37,033	35,913
Associate Members	36,411	809	35,602	32,780
Associates	9,406	365	9,041	8,723
Graduates	4,641	208	4,433	4,147
Students	2,862	61	2,801	2,548
Probationer Students	511	54	457	422
Companions	143	—	143	134
	£91,664	£2,154	£89,510	£84,667

11. Transactions and Other Publications

	1969	1968
	£	£
Transactions		
Composition, Printing, Paper etc.	29,848	29,708
Salaries, Reporting and Abstracting	13,887	11,467
Wrapping and Postage	11,387	8,795
	<u>55,122</u>	<u>49,970</u>
<i>Less:</i> Advertising Revenue	29,269	28,577
Sales	6,397	5,119
	<u>35,666</u>	<u>33,696</u>
	19,456	16,274
(The above incorporates both the Canadian and Indian Division Supplements and Marine Engineers Journal).		
Specialist Sections		
Cost of Proceedings		768
		1,234
General Publications		
Gross Surplus on Distribution		(905)
		<u>(978)</u>
	£19,319	£16,530

12. Bases of Valuation

- A) Investments, for the purpose of ascertaining Market Value, are valued at middle market price. Dollar Securities are valued at the spot \$U.S. rate plus \$ premium, adjusted for the 25% loss of premium which would be suffered on future sales in complying with Her Majesty's Treasury's Exchange Control Regulations.
- B) Overseas Cash and Bank Balances are converted at the following standard rates of exchange:
- | Country | Rate of Exchange per £1 Sterling |
|--------------------------|----------------------------------|
| United States of America | \$2.40 |
| Canada | \$2.60 |
| India | R18 |
| Pakistan | R11.43 |
| Australia | \$2.15 |
| New Zealand | \$2.15 |
- C) To facilitate the preparation of the Accounts, overseas Bank Accounts are closed off at 30th November each year.

Annual Reports of the Branches

HOME

DEVON AND CORNWALL

Membership of the Branch now stands at a total of 357 members of all grades.

During the year Mr. J. G. Nichol, C.Eng., A.M.I.Mar.E., resigned from the Committee due to transfer abroad and the Committee, in accordance with the rules, elected Cdr. W. Farrell (a past Honorary Secretary) to fill the vacancy. He retires at the next Annual General Meeting but is eligible for re-election.

Lt. Cdr. Utton was co-opted to the Committee during the year in view of his membership of the C.E.I. Committee for Cornwall. It was considered by the Branch Committee that the Institute should be represented at the C.E.I. Committee by a member with access to the Committee's immediate decisions and policies. Lt. Cdr. Ellison and Mr. Weddle are retiring members. Mr. N. W. Jephcott is resigning for business reasons.

Six technical meetings were held during the year. The average attendance was approximately 70 at each meeting.

The Cheese and Wine Party held at Plymouth Guild Hall on Friday, 11th April, 1969, was attended by about 90 members and guests. A "find the contraband" competition was held for several items of "contraband" provided by members of the Committee and a donation was made to the Guild of Benevolence. The Annual Dinner and Dance was held in the Dartmoor Restaurant on 24th October, 1969. The Branch's guests were Chairman of Council, Mr. B. Hildrew and Mrs. Hildrew, Sq. Ldr. P. Baker and Mrs. Baker, Major G. R. Green C.I.Mar.E. and Alderman Miss E. K. Pryor. Only 92 tickets were sold and, although it is pleasing to record a far higher proportion of members attending, it must be emphasized that much greater support is necessary if this pleasant annual event is to continue. During the evening a raffle was held, the prizes being most kindly donated by local marine industries and interests.

The Committee Meetings were held in each month other than the closed season, June to August. They were active and interesting meetings, a highlight of which was the effort to bring about the formation of an officially approved C.E.I. Committee and associated activities. It is gratifying to report hopeful indications of success in this aim.

A good year but there is scope for more participation by many members in the activities of the Branch.

R. H. Sheppard (*Chairman*)

W. A. Currie (*Honorary Secretary*)

NORTH EAST COAST

The total membership of the Branch has continued to increase and now stands at 1254.

Eleven technical meetings were held at which the average attendance was 120.

The Annual Dinner and Dance was held at Gosforth Park Hotel, Newcastle upon Tyne.

The Spring and Autumn Golf Meetings were held at Foxton Hall Golf Club and Ponteland Golf Club respectively.

There were several meetings of C.E.I. Northern Committee attended by the Honorary Secretary, Mr. T. Matthews.

The Committee wish to express their appreciation of the services of the Chairman of the Golf Section, Mr. J. Loveridge. They also express appreciation of the services of the Golf

Secretary Mr. J. D. Hugill and Mr. D. Costar Treasurer. Appreciation of the services of A. B. Dean as Social Secretary are also expressed and recorded.

Thanks are also extended to Mr. A. J. S. Bennett, M.B.E., and Mr. R. J. Whyte, C.Eng., for the work they have done in arranging Junior Lectures at the South Shields Marine and Technical College which have been extremely well attended.

The Chairman and Committee also thank Mr. W. A. Jones for devoting time to meeting and entertaining Lecturers prior to the Branch's meetings and also the University of Newcastle for the use of the Lecture Theatre and Committee Room which has been arranged also by Mr. Jones.

The Branch wish to express their appreciation to Mr. A. J. S. Bennett who is retiring after serving in the capacity of Chairman for one year and to the lecturers and others who have contributed to the programme during the year.

A. J. S. Bennett (*Chairman*)

T. Matthews (*Honorary Secretary*)

NORTH WEST ENGLAND

The total membership of the Branch has continued to increase.

Seven senior meetings took place at the Conference Room of the Mersey Docks and Harbour Board, covering a range of very interesting lectures. Three technical meetings were also held at the Engineers Club, Manchester. Five junior lectures were also presented during the year.

A visit to the "Shell Thornton" Research establishment in Cheshire took place on Wednesday, 15th October, 1969. The group had a most interesting visit, during which time they were entertained to cocktails, followed by an excellent lunch.

The Annual Dinner Dance was held in the Banqueting Suite of the Adelphi Hotel on Friday, 7th November, 1969. The principle guests were Mr. Derek James Bibby, M.C., of Bibby Line, who was accompanied by Mrs. Bibby, Mr. and Mrs. J. H. Winskill, Mr. and Mrs. E. F. Steen, Mr. and Mrs. H. O'Kane, Mr. and Mrs. S. J. Kennett, Mr. and Mrs. J. Lever, Mr. and Mrs. R. J. Evans, and The Rev. and Mrs. R. A. Evans.

During the year the Branch has continued its active support of the Merseyside and North Wales Local C.E.I. Committee, and in particular the standing representatives of the Branch on the C.E.I. Committee have made considerable effort. Model rules for the formation of Junior C.E.I. Committee were circulated to local Secretaries of constituent institutions of C.E.I. Mr. Anderson, Publicity Officer, approached Radio Merseyside with proposals for co-operation with local C.E.I. Appreciation courses for schools and co-ordination of activity in Education and Training, together with local courses leading to C.E.I. membership were discussed and assessed by the local C.E.I. Committee.

The National Secretary of C.E.I. visited the local C.E.I. Committee together with members of the committee of the above Branch in the Electrical Engineering Laboratories, University of Liverpool. He discussed the development of the Standing Conference for National Qualifications and Title, and summarized the present position. It was suggested that more

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information could be published regarding new developments on Technicians.

Commander K. I. Short, O.B.E., D.S.C., R.N., has recently had to resign the post of Vice-Chairman of Merseyside and North Wales Branch of C.E.I. owing to his leaving the district. Mr. P. Jackson, Vice-Chairman of the above Branch has been proposed as this Branch's nomination for the Chairmanship of local C.E.I.

Increased growth in Branch membership and Branch activity have resulted in it being felt that the time had now come for the Branch to obtain the services of a professional part time secretary, and moves to that end are proceeding. With the establishment of such a post, development of the Branch could proceed at the rate it deserves, and a much fuller service could be given to the Members. The demand for places on visits arranged to date have greatly exceeded the places available. Clearly more visits could be operated which would result in fewer disappointments to Members. It should be realized, however, that only a continued increasingly active membership can keep the Branch moving and developing at the present rate.

Participation of younger Members on the local Committee should be encouraged to obtain the necessary broad spectrum for a balanced approach to the Branch's affairs thus ensuring the good continuity of experience for the future.

The opportunity is taken to thank Mr. H. J. Whitgreave, who, after many years of office as Honorary Treasurer has still carried out his duties as willingly and enthusiastically as ever, and Mr. P. Jackson, Vice-Chairman for representing the Branch at the "Domestic Conference" (prior Imas 1969). Warm appreciation and sincere thanks are extended to the Chairman and the Committee for their support throughout the year.

R. M. Dunshea (*Chairman*)
H. D. Makinson (*Honorary Secretary*)

NORTHERN IRELAND

The Branch membership showed an increase on 1968, the membership total being 230, as compared with 225.

Five technical meetings were held at which various papers were presented.

The Annual Golf Tournament was held on Monday, 16th September, 1969, at 1.30 p.m. at the Royal Belfast Golf Club. Members competed for the Firth Brown Cup. Following clashes in the past with Harland and Wolff golfing outing which, naturally, resulted in some conflict of loyalties within our membership (a number of our members being employed in Harland and Wolff), the Branch negotiated with Harland and Wolff on this occasion and were enabled to join them for a combined golfing outing. The Branch was granted the full co-operation of the Harland and Wolff Management Golfing Society under the Secretaryship of Mr. J. McAnoy, to whom thanks are expressed for his co-operation and advice. The joint function was extremely well supported and weather conditions were ideal. The Firth Brown Cup was won by Member, Mr. J. Rennie, who also qualified for Harland and Wolff's second prize for visitors.

D. H. Alexander (*Chairman*)
S. K. Reid (*Honorary Secretary*)

SOUTH EAST ENGLAND

The membership of the Branch has increased considerably over the previous year. The number registered as members of the Branch in all grades of the Institute is now 920 compared with 850 last year. During the year nine senior technical meetings and joint junior meetings were held.

The Branch has tried to stimulate interest by not having papers or lectures which have been read at the Mark Lane Headquarters. In fact only one such paper was used during the session when the lowest attendance was recorded. To give a wider and added interest in the senior meetings the Branch has introduced the presentation of a film of general interest wherever possible.

During the past session three joint meetings were held with

the Institute of Measurement and Control, the Institute of Petroleum and the Institute of Plant Engineers. The success of the junior meetings may well be attributed to the enthusiasm of the junior and education Committee. During the year the Branch's Secretary attended the Domestic Conference prior to the I.M.A.S. Conference, where he met members from most of the overseas Branches and reported that the experience of the other Branches would be most beneficial in helping to run the Branch's affairs.

The social functions of the Branch were very well attended. In May a combined technical and social visit was organized when members visited the Shaw Savill liner *Southern Cross* at Southampton. However, in a year of glorious weather it was unfortunate that it was the worst Saturday of the season and the party was further harassed by the coach having two punctures in the out back of Hampshire. Lunch was taken in a hotel with delightful surroundings on the outskirts of Southampton. The male members of the party spent a very informative afternoon on board the vessel whilst the ladies were able to indulge in their fantasies as they visited the state and public rooms of the vessel. Tea was taken on board the ship before returning home.

In July a very successful Cheese and Wine Party was held on board *Worcester* which was anchored in the Thames off Greenhithe.

In October the Branch held their 7th Dinner Dance, again at the Corn Exchange, Rochester which was well supported.

The evening started with an unrehearsed blackout of the city of Rochester which added to the occasion by having to take cocktails by candlelight.

H. J. Alexander (*Chairman*)
F. C. Bown (*Honorary Secretary*)

SCOTTISH BRANCH

The total membership of the Scottish Branch has continued to increase and now stands at 1710. This is an increase of 60 during 1969. Ten senior meetings were held in Glasgow at which the average attendance was 77. A student meeting was held on the 22nd October, 1969, and the attendance was 121.

A joint meeting was held with the Aberdeen Mechanical Society at Aberdeen on the 28th February, 1969. A joint meeting was held with the Glasgow section of the Institution of Production Engineers at Glasgow on the 27th February. Both these meetings were very well attended.

The fifteenth Annual Dinner was held on Friday, 21st February, 1969 at the Central Hotel, Glasgow, and the thirteenth Annual Dinner and Dance on Saturday, 13th December, 1969, at the Grosvenor Restaurant, Glasgow. Both these functions were very successful.

The Spring Golf Meeting was held on the 15th May and the Autumn Golf Meeting on the 24th September, 1969 at Airdrie Golf Club. The Beattie Silver Rose Bowl was won by Mr. E. Grieves (Member).

The programme for 1969 included 11 meetings at which various interesting papers were read.

The Committee wish to express their thanks to the Chairman, Dr. J. Rorke, to the speakers and to those who have contributed to the work of the Branch during the year.

J. Rorke (*Chairman*)
L. D. Trenchard (*Honorary Secretary*)

SOUTH WALES

The total Branch membership of all grades now stands at 431, i.e. an increase of 39 over the previous year.

Mr. S. J. French and Mr. J. W. McMaster have represented the Branch on the South Wales Committee of the Council of Engineering Institutions.

Various lectures, including six senior and three junior meetings, were held during the year. The average attendance was senior 54 and junior 68.

The third Annual Buffet Dance was held at the Stoneleigh Club, Porthcawl on Friday, 21st March, for the second year

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running. It was attended by over 100 members and guests who certainly appeared to be thoroughly enjoying the evening. The arrangements at the Stoneleigh Club were excellent and there was little doubt that the bus transport from Cardiff and Swansea was much appreciated. It has been decided by the Committee to change the venue of the Dance next year to the Seabank Hotel, Porthcawl, and arrangements have been made to hold it there on Saturday 21st March, and not the 13th as published, as this would clash with the Institute's London Dinner.

The annual Golf Tournament was held at the Glamorgan-shire Golf Club on Friday, 30th May, when 42 members and guests enjoyed the competition and hospitality. The event was blessed with perfect weather and the David Skae Cup was won by Mr. S. J. French, and the visitors Tankard by Mr. F. Castleton. It was felt that this very pleasant social occasion was not being as well supported as it had been and better support should be encouraged in the future.

The Annual Dinner was held at the Park Hotel, Cardiff on Friday, 7th November when the attendance of members and guests was 181, which, in view of the present state of our industry locally must be regarded as very good. Mr. H. E. Upton, O.B.E., Vice-Chairman of Council, attended from the Institute in London. A very good meal was followed by the usual toasts and speeches, which were very well received by all present.

Mr. Hartley will continue to serve as the local representative of the Institute Guild of Benevolence. The Branch would like to take this opportunity to thank him for his very good work.

In concluding the report tribute is paid to Mr. R. A. Simpson and Mr. S. J. French for the excellent work done during the year.

Thanks are also extended to Mr. D. Skae, Mr. J. W. McMaster and Mr. G. W. Fox for the efforts in forwarding the interest of the Branch on all occasions.

The opportunity is taken to mention the retirement of Mr. H. S. W. Jones, Senior Lecturer of Marine Engineering at the

Llandaff Technical College and to thank the student and junior members from Swansea for their support.

R. S. Andrew (*Chairman*)
W. G. Fox (*Honorary Secretary*)

SOUTHERN JOINT BRANCH R.I.N.A. AND I.M.A.R.E.

The high attendance at meetings and the interesting discussions which followed the reading of papers indicate another successful year in the technical field. It is interesting to note that two of the papers read were by our Members and it is hoped that this high proportion of original papers generated within the Branch will continue in the future. The Council wishes to thank the speakers and all others who have contributed to making each meeting a success.

Six technical lectures were held during the year.

The Council regrets that a number of applicants for tickets for the Annual Ball at the Skyways Hotel, Southampton, had to be declined. The number of tickets sold has to be restricted to ensure reasonable comfort and the tickets were issued strictly on a basis of first come, first served.

Because of unsatisfactory service at previous venues, the Annual Dinner was held this year at Kimbells Restaurant, Southsea. The usual number of about 140 attended and the Branch was pleased to have as its principal guest Vice-Admiral Raper, Director General Ships. The Branch was also glad to have among its guests representatives of the parent societies, local technical colleges and the Southern Committee of C.E.I.

Mr. W. F. Ward has done the Branch the honour of serving another year as Branch President but owing to his recent retirement from business and subsequent moving out of the area it is regretted that he cannot continue to take the active interest in the affairs of the Branch as he has done over many years in the past. The Council wish him and Mrs. Ward a long and happy retirement.

OVERSEAS DIVISIONS

Canadian

ATLANTIC

Membership of the Branch now stands at a total of 159 members of all grades, an increase of 31 over last year.

There were five technical meetings held, in addition to the Annual General Meeting and a special General Meeting held on 21st November to discuss the "Institute in Canada".

The average attendance was 47 at the three technical meetings which took place between February and October.

The visit to the Hydrofoil H.M.C. Bras D'or was held on 18th April. On 21st November a Dinner Meeting was held at the Canadian Coast Guard College, Sydney, N.S., in conjunction with a technical lecture given by Mr. G. J. Fletcher.

The social events held were the Annual Golf Meeting at the Oakfield Country Club on 20th June. Mr. John Green was the winner of the Howard Rogers Cup.

Members and their families took part in the picnic held on MacNab's Island on 2nd August.

The Annual Buffet and Dance was held at the Holiday Inn, Dartmouth, N.S., on 12th December, 90 members and guests attending.

In the month of June, the Imas and Domestic Conference took place in London, and the Branch was most ably represented by Cdr. V. F. O'Connor.

Due to retirement, the Branch Committee will lose the services of Lt. Cdr. H. C. Ashcroft and Mr. T. R. Forsythe.

Lt. Cdr. H. C. Ashcroft (*Chairman*)
B. D. Lawson (*Honorary Secretary*)

GREAT LAKES

Six technical meetings were held during which a list of paper and documentary films were presented.

The Branch's Secretary, Mr. G. W. R. Corbin attended the Imas Conference in London during June 1969.

In a few months the Branch will reach its 10th birthday as a fully constituted Branch. This important anniversary urges the Branch to obtain an even greater achievement. One area deserving a more concerted effort is to attract speakers who are prepared to present a higher calibre of technical paper than has previously been the case. A challenge this year is the organization of the Kingston Education Conference. The Branch will have to work hard to make the Conference successful and it must be recorded that Headquarters has now given official approval along with generous fiscal assistance.

The Branch's present executives are to be congratulated on the bold and successful organization of a full-day meeting

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in February 1969. The outstanding success of that meeting will surely give encouragement to the incoming officers.

In conclusion thanks are extended to both Committee Members and general membership for their support and to Mr. G. W. R. Corbin, who did a magnificent job for the Branch in London.

D. G. Champion (*Chairman*)
G. W. R. Corbin (*Honorary Secretary*)

ST. LAWRENCE

The nominal roll of the Branch now exceeds 140 members and the Branch Committee has spent a very active year endeavouring to promote members' interests and activities. Five technical meetings were held during 1969, despite difficulties in finding papers of sufficient interest and in finding, within the Branch budget, premises suitable for the meetings; in addition, two special meetings and a Dinner Dance were arranged. Attendances at the meetings, however, were not constant and, at times, left much to be desired.

Nevertheless, the Committee has persevered and has arranged, jointly with the Great Lake Branch, a week-end seminar to discuss "Facilities and Requirements for the Training of Marine Engineers", to take place in April 1970.

During the year, the Branch has participated in the various meetings and functions of C.E.I.I.C.

Mr. D. L. Findlay (Local Vice-President, Montreal)

represented the Branch at Imas '69, in London, and reported on the Conference to members at a meeting held on 20th October. This topic was again discussed on 18th November, at a meeting attended by Mr. T. M. Pallas, P.Eng. (Secretary for Canadian Affairs).

K. C. Hamilton (*Chairman*)
L. Kenny (*Honorary Secretary*)

OTTAWA

At the end of 1969 the Ottawa Branch membership stood at 82, a decrease of 1 from the previous year.

Four technical lectures were held during the year; the average attendance at technical meetings was of the order of 35.

A very successful "dine the wives" dinner was held at the Civil Service R.A. Centre on 9th May, when members and their wives enjoyed an excellent dinner and an affable air of well-lubricated congeniality pervaded the evening.

All meetings of the year were held in H.M.C.S. "Bytown" Officers' Mess, except the Annual Dinner, which considerably exceeded the mess facilities, and the meeting of 3rd December, which was precluded by previous mess commitments. The high standard of the service over the years is greatly appreciated. The 3rd December meeting was held in the R.C.A.F. Officers' Mess on Gloucester Street and the co-operation of the Mess Manager there, Mr. French, could not be bettered.

F. Harley (*Chairman*)
J. R. E. Clark (*Honorary Secretary*)

OVERSEAS BRANCHES

CHRISTCHURCH (SOUTH ISLAND)

The South Island Branch has been able to enjoy an active programme owing to the keen interest shown by all members. Membership of the Branch has slightly fluctuated during the year due to members moving to the North Island. However, three new members joined the Institute and, at present, the number stands at 64.

Meetings in the Christchurch area were held at Shell House, St. Elmo's Courts, Hereford Street, and the Branch is greatly indebted to Shell Oil, New Zealand Ltd. for the use of their premises gratis.

The major activity of the Branch during the year was that of arranging a full programme of technical meetings and social events. Nine committee meetings and six general meetings were held during the year.

Three technical meetings were held when a number of interesting papers were presented.

A visit was paid to HMS *London* by members, when a conducted tour of the machinery spaces was arranged. The visit was well attended and much appreciated by all members.

In June 1969 the Branch was represented by their Secretary at the Domestic Conference (prior Imas) held in London. A precis of the visit was circulated to all members.

In November the South Island Branch was represented by their Treasurer at the inauguration of the Australia and New Zealand Section in Sydney.

It is hoped that the interest shown by members will continue and the Branch looks forward to its development.

E. R. Musson (*Chairman*)
A. E. Miles (*Honorary Secretary*)

DUBLIN

During the year 1969 a determined effort was made to put the Branch on a regular footing.

Six Committee Meetings were held and arrangements were made to present three papers to the local members. Arrangements were also made to hold the last meeting of the year on the 10th December, 1969 when a paper was to be read by Mr. N. Ross. On the afternoon of the meeting it was learned that Mr. Ross would be unable to travel from London due to fog and it was then too late to inform members. It was therefore decided to use the meeting to discuss the activities of the Branch. Twenty members attended the meeting and a discussion took place on general Branch affairs.

Preliminary arrangements were made to hold three meetings during the first half of 1970, when a paper from a local source might be presented.

In response to a postal request to all Members only two nominations were received to fill the two vacancies arising on the Committee in 1970.

It was regretted that two of the three meetings arranged for

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1969 had to be cancelled due to the reasons previously mentioned, and to the difficulties arising from starting a Branch from scratch and turning it into an active unit. It was hoped that by the end of 1970 the Branch would be established on a very firm footing.

H. O' N. Lennox (*Chairman*)

T. A. Kierman (*Honorary Secretary*)

QUEENSLAND

Although excellent attendance was noted at each of the thirteen committee meetings held during the year, the attendances of the seven general meetings were rather disappointing.

The annual ladies night was as popular as ever, as was the Annual Dinner. This event was changed by the invitation of distinguished guests and by having a most capable and interesting guest speaker in Captain G. Hunt, D.S.O., D.S.C., R.N., (Retd.) who is now with the British High Commission in Brisbane who gave an address on "Submarines".

The membership increased by 24 per cent over the previous year to a total of 123 members.

The chairman Mr. A. J. Watkins represented the Branch at Imas '69 and the Institute's Domestic Conference and was also able to combine this event with an extensive tour of shipyards and dock facilities in the United Kingdom, the Continent and the Far East. The results of this tour were covered in two lectures given by Mr. Watkins on his return.

The Branch Secretary, Mr. J. Chapman, represented the Queensland Branch at a meeting in Sydney of the newly formed Australian and New Zealand Division. As a result of this meeting the Secretary has been appointed; he is Mr. Kerr-Paxton who was a previous secretary of the Victoria Branch.

A. J. Watkins (*Chairman*)

A. L. Redford (*Acting Honorary Secretary*. May-October)

J. Chapman (*Honorary Secretary*)

SYDNEY

The past year has been an active one for the Branch and its Committee. The Annual General Meeting, held on Wednesday, 26th February was followed by the presentation of a technical paper. Four other technical meetings were held during the year, one of which was for Student members, while another was the annual joint meeting with the Royal Institution of Naval Architects.

The Annual Dinner, held on 6th November, at the Wentworth Hotel, was again a most popular event. The guest of honour, the Hon. Ian Sinclair, M.P., Federal Minister for Shipping and Transport, was welcomed by the Vice-President for Australia, Captain R. G. Parker, O.B.E., R.A.N. (ret'd.) who also replied to the toast to the Institute. The toast to the Guests was proposed by the Chairman of the Branch, Mr. H. Gerrard, and the Hon. Devis Hughes, M.L.A., Minister for Public Works, New South Wales Parliament, ably responded. It was pleasing, too, that Mr. G. J. Tuke, B.Sc. (Member of Council) was able to attend.

Under the chairmanship of Captain Parker, a meeting was held in Sydney, during the latter part of the year, at which representatives from Australia and New Zealand discussed the formation of an Australia and New Zealand Division. Opportunity was taken of Mr. Tuke's visit to obtain the assistance and opinions of Council directly from one of its members.

The Branch Honorary Secretary, Mr. K. M. C. Murray, wrote, during 1969, to all the major shipping companies, shipyards, Government Instrumentalities and classification societies, on behalf of the Education Sub-committee. The response to date, however, has not been encouraging.

H. Gerrard (*Chairman*)

K. M. C. Murray (*Honorary Secretary*)

COUNCIL OF ENGINEERING INSTITUTIONS

The Institute's financial contribution to the Council of Engineering Institutions for the year was £6759, the last quarterly payment increasing the cost per Corporate Member to 11/-.

The total Corporate Membership of constituent institutions for 1968 and 1969 was:

	1968	1969
Corporate	159 723	166 515
Non-Corporate	115 877	118 582
	<u>275 600</u>	<u>285 097</u>

C.E.I. ADMINISTRATION

An office has been set up within C.E.I. to administer the MacRobert Award. This consists of a Gold Medal and a prize of £25 000 annually for outstanding contributions in the way of innovation in engineering or other physical technologies, and the Award Evaluation Committee under the Chairmanship of Lord Hinton of Bankside, representative of the whole field of engineering, has selected the first winners of the Award this year.

Miss R. Winslade, Assistant Secretary, was awarded the O.B.E. in June. Mr. A. M. St. L. Ramsay-Murray has replaced Mr. L. Wild as Assistant Secretary.

EXTRA FIRST-CLASS CERTIFICATE

In March, the Board of Trade Extra First-Class Certificate was accepted for exemption from Parts 1 and 2 of the C.E.I. examination, subject to external assessment. This prompted the Council of the Institute to agree for a trial period of 12 months, grants of £100 for Extra First-Class Certificate candidates.

REGISTER AND TECHNICIANS

Discussions have continued on the C.E.I. Register. Concern was expressed by the Institute in July about the proposal that all C.E.I. institutions be asked to underwrite the cost of putting the records of those nine institutions who were not already computerized on a computer. The proposals for an extended Register which would bring both technician and technologist members of the engineering community within one comprehensive organization on which discussions have been held between C.E.I., the Standing Conference for National Qualification and Title which was formed to discuss the role of the engineering technician and his need for a national title, and other organizations have broadened the whole of C.E.I.'s concept of its function. At a special meeting in September, the Board resolved that C.E.I. would initiate the formation of an organization to create and administer a system of qualification and title and to establish and maintain a composite Register covering Chartered Engineers, Technician Engineers, and Engineering Technicians, this being known as the Registration Qualification and Title Organization.

H.R.H. The Prince Philip, President of C.E.I., had supported the advantages of as close an association as possible between the technologist and the technician during discussion at an Informal Board Meeting arranged by the Institution of Chemical Engineers.

The Institute has not only continued to play a leading and consistent part in deliberations, particularly on technician

policy and registration, within C.E.I. but has maintained its membership of the Standing Conference for National Qualification and Title, being a group of 42 societies concerned with registration of and titles for technicians.

STATE REGISTRATION

It is recognized that the C.E.I. institutions although providing a natural basis for State Registration are far from being totally representative of the engineering profession, and in its membership of a Working Party discussing possible State Registration of engineers, the Institute is very much alive to the possible implications. Meetings between C.E.I. and the Ministry of Technology have continued, discussions covering not only registration, but utilization of manpower, the foundation of a National Design Council, Technocentres, technicians and representation by engineers in overseas embassies.

The second survey of professional engineers, covering 21 000 individual engineers, was completed during the year.

The Membership Committee concluded in 1969 that there was need for a complete re-appraisal of the situation on affiliate membership. Proposals outlining an "umbrella" structure, so often canvassed by the Institute, were considered, but no action has yet been taken.

After many years of deliberation, member nations of the Federation Europeenne d'Associations Nationales d'Ingenieurs have agreed on a formula for registration throughout Europe in two groups, one broadly at professional level, and one at higher technician level. It is likely that, initially, the United Kingdom will offer registration only to the first group.

PERSONAL SERVICES

In 1968 a Committee was set up jointly between the Engineers Guild Ltd. and C.E.I. to consider means of providing personal services to individual professional engineers. During 1969, further investigation has been undertaken and a report is being prepared for consideration by the Board on the subject of an organization to provide such services. The response to a questionnaire issued to constituent members indicated that this attempt to consider personal professional problems was welcomed.

PUBLIC RELATIONS

The Information and Public Relations adviser appointed by C.E.I. in 1968 has maintained a regular service of Press Releases and dealt with an increasing number of enquiries from Press and broadcasting associations. A descriptive leaflet about C.E.I., a careers brochure, promotional literature for the forthcoming London Engineering Congress and a C.E.I. display stand for careers conventions, have been produced.

EDUCATION AND TRAINING

A review is being conducted on the standard and content of C.E.I. examinations syllabuses and a new Part I has been drafted for probable adoption in 1972. The entry for and results of October 1968 examination were disappointing, but there was an improvement in May 1969. During the year, Council has agreed to a number of additional U.K. and overseas qualifications for which exemption from part or whole of the C.E.I. examinations would be afforded. However, considerable differences of opinion between constituent members have arisen on the recognition of college diplomas.

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General principles on training have been agreed as guide lines to member institutions for adoption before 1974. These cover three types of training:

- a) industrial training;
- b) sponsored training;
- c) experience in lieu of training.

The guide lines have been published as C.E.I. Education and Training Statement No. 6.

C.E.I. now has representatives on G.C.E. examining bodies of the Southern Universities Joint Board, Associated Examining Board and the University of Cambridge Local Examinations Syndicate. A route to Corporate Membership for mature candidates has been agreed by the Board.

OVERSEAS ACTIVITIES

At the sixth meeting of the Commonwealth Engineering Conference in Delhi in November, C.E.I. was admitted to the executive of the Conference. The visit of the Chairman of Council and Director and Secretary is reported elsewhere.

C.E.I. was represented at the Jubilee Celebrations of the Institution of Engineers Australia by Sir Hubert Shirley-Smith, who made a presentation from Council. Unhappily, illness had prevented Sir Leonard Drucquer from attending. In preparation for overseas visits of Council Officers, the Secretaries' Committee, under the Chairmanship of the Director and Secretary, made an

extensive analysis of institutions' overseas activities, staff and administration.

LOCAL COMMITTEES

The formation of a C.E.I. Local Committee in Scotland was sponsored by the Institute and Institute members have been active in this and many other of the C.E.I. Local Committees throughout the country. The possibility of setting up Regional Offices has been investigated by the Secretaries' Committee, but further discussion with Local Committee representatives is awaited before making any recommendations about these.

JOINT HOUSING

A joint housing project is still under consideration by C.E.I. and the Director and Secretary has been appointed to membership of the Building Committee.

CONFERENCES

Various conferences have been held during the year, some sponsored by individual institutions on C.E.I.'s behalf: these have included "Executive Development in the Engineering Industry", "The Engineers that Industry Wants", and a joint conference with Aslib.

The Graham Clark Lecture for 1969 was delivered by Sir Frederick Brundrett, K.C.B., K.B.E., his subject being "The Sea of Opportunity—What the Oceans have to offer the Engineer".

Representatives' Reports

Brighton College of Technology: Mechanical and Electrical Engineering Advisory Committee.

Representative: F. M. Marshall, B.Sc.

A meeting was held on 21st November, 1969, and discussion took place on the following subjects:

1) A proposal to appoint a liaison officer with industrial establishments in the surrounding area. This was held in suspense as it was not regarded viable at that time.

2) Difficulties of replacing obsolete machinery and equipment.

The chairman concluded the meeting by informing those present that this was the last meeting of the Advisory Committee under its present title, due to the inception of the Brighton Polytechnic which is to absorb the Colleges of Technology and Art and will take over nine CNAAs (Council for National Academic Awards) degrees. The present Advisory Committees were to be reconstituted and a new Polytechnic Council considered future arrangements and appointments at a meeting on 9th December, 1969. No previous intimation of these circumstances had been notified.

City and Guilds of London Institute: Advisory Committee on Shipbuilding, Ship Joinery, Yacht and Boat Building.

Representative: P. J. Howard, B.Sc.

The Committee has considered a suggestion by the Shipbuilding Industry Training Committee that a scheme of further education for apprentice riggers be provided. Since the number of apprentices is likely to be very small it is unlikely that the City and Guilds could provide a scheme.

Several meetings have been held in order to consider the problems brought about by changing to the metric system and a time-table has been prepared to ensure a smooth change-over for examination purposes.

Committee on Regulations for the Electrical and Electronic Equipment of Ships.

Representative: R. E. R. Crick.

The Committee continued to be actively engaged on the revision of the 1961 edition of the regulations.

East Ham Technical College: Engineering Advisory Committee.

Representative: R. M. Duggan, M.A.

Two meetings of the Committee were held during 1969, on 22nd May and 6th November. On the former date the work of the Mechanical and Production Engineering Department was discussed and on the latter date the report of the Electrical Engineering Department. In future the Committee will revert to the three meetings a year procedure.

The Committee has now been augmented by representatives of the following organizations: G.P.O. London Telecommunications Region, Institute of Work Study Practitioners, Electrical Contractors Association (Incorporated) Ltd., Road Transport Industry Training Board, Engineering Industry Training Board, Institution of Plant Engineers, and Institute of the Motor Industry.

The enrolments in both the Mechanical and Electrical Engineering departments have again fallen by a further eight per cent. Clearly 1966/67 was the peak and the College has probably reached its limiting capacity. The general policy now is to increase the proportion of advanced grade work rather than

the number of engineering students, which at present are just over 3000 in total.

There has again been a large turnover in staff during the year, recruitment is difficult and the advertisements for technician staff are not attracting enough applicants. The financial estimates for April 1969/70 have shown that, unlike many Authorities, there was no severe cutting down on expenditure. The provision for each department of the College has been estimated with regard to student numbers and the amount of practical work is involved in courses.

A number of changes have taken place in further education courses as a direct result of some Training Board proposals.

It is also anticipated that the Haslegrave "Committee on Technician Courses and Examinations" will result in a new course structure where some National Certificate and technician courses will be combined.

Grimsby College of Further Education: Engineering Advisory Committee.

Representative: R. L. Rawlings, C. Eng.

The committee have held one meeting each term with an extra session necessary in the month of May to further analyse the Capital Expenditure list estimates, consequent on the wider requirements of the Engineering Department. Particularly important features being Electronic Items associated with mechanical functions, instrumentation and control engineering, all part of a constantly expanding syllabus.

Overall results in all external certificate examinations showed a pass rate of 78 per cent, which is said to be above the comparable national figure.

There is a forward buildings extension programme to be implemented in the next two or three years which should, in part, be to the future benefit of the Engineering Department.

International Institute of Refrigeration: Standing Committee.

Representative: K. C. Hales, M.A.

The Committee met twice in 1969 and in the main discussed the administrative problems of the Institute including the method of election to the Scientific Council, liaison with other organizations and the impending retirement of the Director. It was decided to urge initiative from Great Britain towards establishing international codes of practice for handling liquefied gases. Reference was made to the meeting in London, in June 1970 on heat transfer and refrigeration machinery.

Joint British Committee for Stress Analysis.

Representative: B. Hildrew, M.Sc.

The activities of this Committee during 1969 have been primarily concerned with the preparations for the 4th International Conference on Stress Analysis which is to be held in Cambridge on 6th to 10th April. A final list of Conference papers has been established and application forms for those wishing to attend are now obtainable. This major conference occurs every four years and this is the first time it has been held in the United Kingdom.

The members of the Committee have had a discussion on the desirability of restricting the prefixes of units of stress analysis when introducing metrication into the stress analysis field. It is hoped to resolve this matter in the near future.

The Journal of Strain Analysis has continued to be published quarterly. This Journal is an interdisciplinary organ and

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accepts its supply of papers for publication from contributors in all countries. The sales of the Journal have continued to increase during the past year.

The Institute of Marine Engineers have agreed to act as the venue for a major conference in 1972, the subject being "The Recording and Interpretation of Engineering Measurements".

Joint Committee for Ordinary National Certificates and Diplomas.

Representative: Dr. J. Cowley.

During the year four meetings of the main committee were held and about twelve committee and sub-committee meetings on syllabuses for the O.N.D. course for marine cadets.

Under the existing scheme, cadets study for a "marine" O.N.D. during the first two years of their apprenticeship (Phase I) and obtain supplementary endorsements on day release during their industrial training period (Phase III).

In order to qualify for B.o.T. First Class Certificate exemptions, the depth of treatment was greater in certain subjects and some topics outside the Joint Committee guide syllabuses were included. This has presented difficulties to some students. The B.o.T. recently agreed to a reduction in Phase III workshop service from 1200 hours to 600 hours subject to the inclusion in the Phase III period of instruction in Control Engineering and Applied Electronics. This reduction in workshop hours was sufficient to make hours available for increased educational content in Phase III and the opportunity was taken to move many of the "applied" aspects of topics in the Heat and Mechanics syllabuses from Phase I into Phase III in a combined subject entitled Mechanical Technology.

In brief, this means that candidates will qualify for First Class B.o.T. exemptions by endorsements to their O.N.D. which is now at the guide syllabus level.

The above development was discussed at the first Joint Committee meeting our Institute was represented on 5th May, 1969.

For convenience in considering the remainder of this report, the following notes on the national conditions for the award of the Ordinary National Diploma are presented:

1) Diplomas are issued to candidates who pass in five of the following examinable subjects: (These must include Mathematics, Applied Mechanics and Principles of Electricity). Mathematics*, Applied Mechanics*, Applied Heat, Principles of Electricity*, Physics, Workshop Technology, Engineering Drawing. Candidates may be referred in the starred subjects.

At the meeting held on 29th June, 1969, H.M.I. Lewis proposed that the above national conditions for the award of an O.N.D. should not be applied to marine cadets in the alternative training scheme. He proposed that Marine students should be awarded an O.N.D. if they passed in Mathematics and any four other subjects. His main reason was that, for most of these cadets, the O.N.D. was a terminal qualification and they would not be continuing their studies at higher academic levels. A further reason was that these candidates had to pass in Heat and Engineering Drawing to obtain exemptions from the B.o.T. examinations.

In the subsequent discussion several members expressed doubts as to why students in one particular industry should not comply with the national conditions. They insisted that when other O.N.D. schemes came up for revision, similar conditions would be demanded.

It was further queried as to why Mathematics had been selected as the compulsory subject and Mr. Lewis said he was quite happy if the conditions were to be any five subjects. A vote was then taken to determine whether the award of O.N.D. for marines should be either: any five subjects, or mathematics plus any four subjects. The vote for "any five subjects" was carried by nine votes to eight votes.

In view of the low attendance (17 members) and the small margin, it was agreed that the subject be left open for discussion at the following meeting.

This meeting was held on 1st December, 1969 when objections to the proposals were made by members absent on the previous occasion. Amongst the points raised were:

a) the O.N.D. was a national qualification and only one

set of conditions should apply;

- b) there was little logic in the reasons for the changes proposed;
- c) if an exception were made, it would have to be recorded on the Certificate;
- d) these alternatives were being proposed to suit the B.o.T.;
- e) marine candidates could obtain an O.N.D. passing only the subjects: workshop technology, drawing, physics, heat and mathematics, i.e. failing in applied mechanics and electrical engineering—two of the compulsory subjects.

Lloyd's Register of Shipping: Technical Committee.

Representatives: J. G. Robinson and Capt. W. S. C. Jenks, O.B.E., R.N.

The following matters of particular interest were dealt with by the Committee during 1969:

1) Following the changes made to the Rules for crankshafts for oil engines in 1968 the complete Chapter on main and auxiliary engines and gearing has been revised and redrafted. Opportunity has been taken to amend and up-date the contents and the whole is now presented in a more logical arrangement.

2) Reference to wrought iron as a pipe material has been deleted from Chapter E as have the requirements relating to inspection bosses in main steam pipe lines with butt welded joints.

3) Table E.5.4. of the Rules showing minimum nominal pipe thicknesses has been amended to accord with ISO/R 134.

4) Paragraph E.311 of the Rules has been amended to ensure that in top fired boilers the oil fuel supply to the boilers can be quickly shut off at the boiler control platform in the event of leakage of oil fuel at the burner units. Also in the event of total flame failure, the oil fuel supply to the boilers will shut off automatically.

5) The responsibility for submitting calculations of the torsional vibration characteristics of shafting systems for main propulsion and essential auxiliary machinery to Lloyd's Register for approval now devolves on the Shipbuilder as main contractor in collaboration with the Enginebuilder.

6) The part of Chapter H, Section 8 of the Rules specifying minimum astern power rating for steam and gas turbines has now been deleted in order to give designers greater freedom to comply with current practice for different classes of ships, i.e. fast cargo liners and container type ships. However, to ensure some measure of control of the installed astern power and as a safeguard against turbine overheating, the present requirements relating to revolutions per minute in free route astern have been retained.

7) Based on experience obtained since the introduction of requirements for Control Engineering in November 1967, more precise rules for control schemes suitable for ships designed to operate with unattended machinery spaces have been formulated. Section 1 of Chapter L is retained, with amendments, but Sections 2, 3 and 4 have been replaced with new Sections 2 to 9. The policy adopted in these amendments is to define the problems which must be solved by the system designer and not to propose standard solutions.

8) In view of the increase in the number of failures of the attachment of armatures to shafts in oil engine driven generator sets which had been attributed to the inertia torque effects of vibration imposed on the rotor mass by the prime mover, the relevant paragraphs of the guidance notes on torsional vibration characteristics in Chapter R(E) Section 1 of the Rules have been modified. The intention is to provide a more rational and comprehensive basis for evaluating magnitudes of vibratory torque by omitting reference to "dynamically magnified portions of flanks", and by extending the range of harmonic exciting orders to be considered, not confined to a single mode. In addition reference is now made to "non-resonant" conditions in order to encourage analysis of the characteristics applicable to close-coupled systems in particular on the basis of more comprehensive forced frequency techniques, rather than the oversimplified "flank" concept. The basis of the amendment permits a more factual evaluation of the actual resultant inertia torque to which the rotor is subjected.

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Parliamentary and Scientific Committee.

Representative: R. Cook, M.Sc.

Eight meetings of the General Committee were held during the year and discussions took place on the following subjects: flood studies and flood prevention, development of the float glass process, future developments with regard to Inter City transport, developments in the field of medical engineering, current work and activities of the Department of Education and Science, the work of the Select Committee of Science and Technology, water resources with special regard to desalination, barrages, etc., problems of noise.

A number of visits were paid to scientific and industrial establishments.

Poplar Technical College: Board of Governors.

Representative: D. G. Alcock.

As in previous years it was evident that the college wished to play a major part in the education and training of future sea-going personnel. It was, however, very clear that the facilities at Poplar were well below the standard which was made available in other cities, and were by no means a credit to a capital city. The various facilities were widely dispersed into a variety of premises, strong representations have been made to the Education Authorities about the problem arising, but as yet to no avail. There would seem to be a case for the Institute to make the strongest possible representations to rectify this position. In spite of the difficulties, the college had once again achieved extremely good results in its various examinations, and undoubtedly this success was due to the ability of the staff.

Southampton College of Technology: Engineering Advisory Committee.

Representative: D. S. Aris, B.Sc.

Committee meetings were held on 6th February, 12th June and 4th December, 1969.

The principal matter which arose out of the 1969 report was that the H.N.D. Course in Mechanical Engineering (Marine), which commenced in the last academic year was strongly supported.

Engineer Cadet enrolment in the College was maintained at approximately the same level as during the 1968/69 Session. Technical ship visits from the College have increased.

United Kingdom Automation Council.

Representatives: D. Gray, B.Sc., and J. McNaught.

During the year 1969/70 The U.K.A.C. decided to use its authority to promote public discussion on a very topical and important question—the effect of taxation on investment in automation equipment.

The first lecture in the series of lectures was given in the Institute of Marine Engineers Building on 15th October 1969 by Mr. C. J. Gray, A.C.A., A.M.I.M.C., his subject being "A Financial Approach to Capital Project Appraisal, with Special Reference to Automation".

Mr. Gray outlined how two developments in recent years—discounted cash flow and the computer—have resulted in many new techniques of investment evaluation. These techniques depend for their successful application on estimates of future costs and revenue; also on the degree of probability that these will be achieved. Such evaluations can never be better than the information on which they are based. For this reason, it was considered essential, by Mr. Gray, that these new techniques of investment evaluation are understood by those whose task it is to effect project appraisal. There is a distinct danger today that the techniques may assume more importance than judgement. The project appraiser's role is to co-ordinate rather than estimate and his approach must be one of co-operation and guidance rather than imposition.

World Power Conference: British National Committee.

Representative: G. L. R. Watkins.

The Annual General Meeting was held on 8th May, 1969 with Sir Henry Jones as chairman, and presented at the meeting was the Annual Report 1968 of the World Energy Conference.

This confirmed the change of title and noted the election of Professor P. Neporozhny as president until 1971 and the election of Mr. Walker L. Cisler as chairman of the International Executive Council for the next six years. Approval was given to the new Constitution and By-Laws, and the setting up of Programme and Administrative Committees was announced. It was reported that the Seventh Plenary Meeting of the World Energy Conference 1968, which was held in Moscow 20th–24th August, was attended by about 6000 participants including 1518 from overseas and that 280 technical papers were read. Three general addresses were also given namely: "The Role of the Economic Commission for Europe" by Pierre Sevette; "The Role of the Council for Mutual Economic Aid" by M. V. Constantinescu; and "Atomic Power—The Role it Plays in Technical Progress" by Professor A. P. Alexandrov. It was stated that the meeting arranged for 1971 in Bucharest will become the Eighth Plenary Meeting and that the location selected for the Ninth Plenary Meeting in 1974 is Detroit.

At the meeting it was reported that 135 participants and 52 accompanying persons from Great Britain attended the Seventh Plenary Meeting and that Great Britain contributed 23 papers while the British National Committee provided a speaker at each of the three Round-Table Conferences as well as a chairman of the technical session on Power Systems and their Interconnection. Mr. W. Bailey reported upon the meeting of the Administrative Committee, held in Vienna 21st and 22nd February 1969, which dealt mainly with financial matters and proposals for achieving a target income of £15 000 for 1969 for the International Executive Council, and the way in which contributions should be apportioned. The Programme Committee, which met in Cannes on 18th and 19th February 1969 to deal with administrative arrangements for future technical meetings, finalized the technical programme for the Bucharest meeting and put forward proposals for raising the technical quality of the technical sessions of the Conferences. The meeting took note that the International Executive Council would meet in Ankara on 2nd and 3rd June 1969 and that Lord Nelson of Stafford, Sir Norman Elliott, Mr. W. Bailey, Mr. L. H. Leighton and Mr. W. W. Campbell would represent the British National Committee. It was further noted that the Brazilian National Committee had invited the International Executive Council to hold a meeting in Rio de Janeiro in 1970 and that application for membership had been put forward by: The Republic of the Ivory Coast, Republic of Korea, and the German Democratic Republic. On the subject of Standardization the adoption of the *Systeme International* was suggested and the German National Committee were to be asked to put forward any practical variants for approval by the Council.

The opening date of the Eighth Plenary Meeting to be held in Bucharest has been fixed provisionally for 27th June, 1971, the general theme being "Improving the Utilization of Energy, with Special Reference to Complex Uses". A final draft of the technical programme was received by the Committee and this indicated that the subject is covered by five divisions namely: the demand for energy—new developments in technical and economic patterns; new processes or progress of a general character in improving single processes for the production, transport, transformation and consumption of energy; schemes and installations for the complex use of energy for multi-output processes; new technical and economical calculation methods promoting a better utilization of energy; and economic and social impact of the improved use of energy. Lord Hinton is chairman of the papers committee for the conference. The results of the approach to National Corporations and various companies for increased financial support were noted and also the proposals with respect to Scientific, Technical and Industrial organizations. It was noted that a new edition of Technical Data on Fuel was planned for 1971.

Mr. J. Guthrie Brown presented his report upon the activities of the British Section of the International Commission on Large Dams. The 36th Executive Meeting of the Commission was held in Stavanger during June 1968 and four technical questions for discussion at the 10th Congress, to be held in Montreal in June 1970, were agreed.

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Riverside Technical College, Board of Governors.

Representative making this report: Cdr. K. I. Short, O.B.E., D.S.C., R.N.

1969 has been a successful year for the College and marine engineering courses have continued to develop.

The Marine Engineering Cadet Training Scheme enrolments reached the record figure of 113 in the Phase I—first year.

The Phase II correspondence course which has increased in number to 132 in four years is in the process of modification and improvement. Closer liaison with the shipping companies has been achieved and a monthly report sheet showing the progress of each student is sent to his company. Consideration is also being given to the modifications which will be required to meet the changes in the O.N.D. and the new City and Guilds Technicians' courses.

The Phase III year began with 84 students, of which 9 completed their course in February; the remainder will complete in July. The 1969 February enrolment was 8 and the July enrolment 66. The endorsement examination held in February and July gave a pass rate of 96 per cent. A new tutorial system has been introduced to improve student/staff relationships.

Voluntary evening revision classes were provided throughout the year for students who had failed O.N.D. or Part 'A' during Phase I. Many cadets took advantage of these classes to prepare for the B.o.T. Part 'A' examinations.

A comprehensive range of educational visits was made during the year.

A 12-week block release course was again provided for

students preparing for the Second Class B.o.T. Part 'A' examinations.

Following the very successful six-week course for the *Queen Elizabeth 2* mechanics, a further course was arranged during July and August.

A second group of electrical officers attended the T3 Block Release Course and all were successful in the examinations, enabling them to proceed to the T4 year. The first groups of officers completed their second block release course in July and all the candidates entered for the City and Guilds of London Institute examinations were awarded the Final Certificate which qualified them for the award of the M.N.T.B. Electrical Officer's Certificate.

The College again provided short courses in Electrical Marine Engineering to familiarize new entrants from other industries with ships' electrical systems and to provide refresher studies for seagoing mechanical and electrical staff.

The coastal vessel engineering courses have now completed their first full cycle and at the end of two years of study, 19 students sat the examination and 15 were successful. Eleven of the successful candidates are currently attending a third year course in Workshop Technology, Marine Maintenance (Marine and Electrical), Welding and Machine Shop Techniques. The total number of students in the course is 46.

A new department of Marine Engineering is to be set up on the 1st April 1970, to deal mainly with Phase II and Phase III training, and electrical officers and other related courses.

An Academic Board for the College has been set up with Boards of Studies for each Department as Sub-committees.