

# THE INSTITUTE OF MARINE ENGINEERS

Founded 1889 and incorporated by Royal Charter 1933

Patron: Her Majesty The Queen



## Annual Report of the Council and Financial Statements

FOR THE YEAR ENDED 30 SEPTEMBER 1989



To be presented  
to members of the Institute at  
**THE ANNUAL GENERAL MEETING,**  
to be held at the  
Institute's headquarters  
The Memorial Building,  
76 Mark Lane, London EC3R 7JN  
on Thursday, 8 March 1990

# THE EARLY DAYS

The Institute of Marine Engineers was founded in 1889 as the result of discussions which took place between a number of superintendent engineers and sea going engineers in the Royal Albert Docks during the Autumn of 1888. At that time there was no organisation in the Port of London which could provide facilities for the extension of knowledge of marine engineering. It was incorporated under the Companies Act in July 1889 and a Royal Charter was granted in 1933.

The first two homes of the Institute were in Stratford, East London. Steady growth in membership was such that by the year 1910, with a membership of over 1,200, it was considered desirable to build permanent headquarters at the Minorities on Tower Hill. This building, which was completed in 1914, gave the Institute its own purpose-built premises including lecture hall, library and committee rooms, together with office accommodation. Accordingly, relatively early in its life the Institute possessed premises with considerable facilities, many resulting from bequests made by members and supporters.

In 1945 the greatly expanded membership, and the growth in intensity and importance of its activities, were such that plans were again made to rehouse the Institute, and at the same time to commemorate those marine engineers who died during the Second World War by giving their successors in the profession a centre



*Asplan Beldam, first President*



*Royal Albert Docks circa 1900*

where they could discuss the technical and scientific developments and problems associated with the profession.

This ambitious plan materialised in 1957 in the form of the 14-storey Memorial Building in Mark Lane, EC3; the foundation stone had been laid by HRH The Duke of Edinburgh, and the opening ceremony was performed by The Earl Mountbatten of Burma.

By 1948 the Institute's membership had become so substantial (about 6,000) and so far flung that it was decided to establish local organisations in order to provide opportunities for members to hold technical and social meetings. These took the form of branches administered by their own honorary officers and committees, with funding from headquarters.

This move had an immediate effect on the rate of elections of new members, and new branches have since been formed continually. Major divisions of several branches each developed in South Africa, Canada, India, and Australia/New Zealand. The first three formed the basis of national institutions, with which the Institute retains strong links; the fourth remains an integral part of the Institute today.

Successive Royal patrons have been HM King George V, from 1918; HM King George VI, from 1937; and HM The Queen, from 1952. HRH The Duke of Edinburgh was President in 1962, and is an Honorary Fellow of the Institute.



# T O D A Y

The Institute today is an international organisation with over 16,000 members in 81 countries. There are currently 36 branches (13 in the UK and 23 overseas) 13 of which are joint branches with the Royal Institution of Naval Architects. Nearly 40% of Institute members are resident overseas.

Membership now spans the whole range of maritime engineering disciplines including marine engineering, naval architecture, offshore and subsea engineering, and structural / civil / mechanical / electrical engineering with marine applications.

Education, training and the consequent raising of professional standards remains a prime objective of the Institute.

From the inception of the Engineering Council, the Institute has fully supported its work particularly as regards improving the status of the engineering profession as a whole in the UK, a goal aimed at bringing to it the respect with which professional engineers are held in Europe and other industrialised countries.

Today, IMarE is a Nominated and Authorised body empowered by the Engineering Council to nominate members for registration as Chartered or Incorporated Engineers or as Engineering Technicians, and to accredit academic and training courses, and arrangements for assessment of responsible experience, provided by education establishments and employers in the UK and elsewhere, so that students completing them may be accepted for Engineering Council registration at an appropriate level and stage.



*IMarE Headquarters*



*Marine Information Centre*



*Editorial Office*

A full programme of technical papers with preprints and Transactions is presented at the Mark Lane headquarters; branches organise their own programme of technical meetings with help from headquarters. At least two major conferences are mounted in the UK each year; conferences are also organised overseas, both from headquarters and by the larger branches.

In addition to publishing Transactions and conference proceedings, the Institute publishes a monthly journal (Marine Engineers Review) with news and feature articles on the latest developments in marine technology, and a range of technical publications. An important service available to members is that provided by the Marine Information Centre (MIC) based on an extensive specialised library. The MIC has its own computer database of information on marine engineering which covers the library's catalogue of books, material published in Transactions, Conferences and Symposia, and the Marine Engineers Review.

The Institute makes annual awards and prizes for excellence of technical papers presented, for academic achievements and for outstanding performance in training. Supplementary grants and scholarships are also awarded annually

Other services to members include a monthly bulletin, an employment register, and social events. A Guild of Benevolence provides financial assistance to needy marine engineers and their families, and runs a residential home at Littlehampton, Sussex, in addition to providing sheltered housing.



# FOREWORD BY THE PRESIDENT

As I am sure you are all aware this has been a most unusual and particularly eventful year for both members and staff of the Institute. All indications are that the Centenary year celebrations and associated technical events have been most successful in promoting the professional status of the practising marine engineer and his associates.

Apart from the specific celebrations underlining 100 years of professional practice and association, the opportunity was taken to emphasise the close relationship which exists between the Merchant Marine and the Royal Navy by holding conferences on the former at headquarters and the latter at the Royal Naval Engineering College, Manadon. Both were immensely successful to the extent that it has been tacitly decided to promote further conferences at Manadon in the future.

The activities involved have also emphasised the unique position of this Institute in related world affairs enjoying representation in no less than 81 countries via a network of 36 branches.

It should also be recognised that this Institute sets the highest professional standards in accrediting Certificates of Competency, Diplomas and degree courses wherever marine engineering is practised or professed. All members of this Institute may therefore take pride in recognising that they are equal with the best that the engineering profession can produce.

To further ensure the continuing growth of our membership with young innovative talent, Council has agreed that all students enrolled on Institute accredited courses will be entitled to free membership with the provision of full services for the entire period of their studies. This has proved most successful in encouraging young aspiring engineers to join our ranks. Furthermore I am convinced that when they appreciate the comparative quality of the material which they receive from the Institute concerning their assumed profession they will continue through to a lifetime of active membership.

Having returned today from an all too rapid tour of our Australasian and Far East branches, following hectic visits



*Ray Thompson, President*

*"All members of this Institute may therefore take pride in recognising that they are equal with the best that the engineering profession can produce."*

A handwritten signature in blue ink that reads "R. V. Thompson". The signature is fluid and cursive.

**R V Thompson**

to more local venues, I must emphasise how impressed I was with their dedication to the promotion of ideals fundamental to our profession. The unstinting hard work which area councils, Chairmen and members give so generously year in and year out is also most evident. Our future strength and well-being depends to a great extent upon your energetic goodwill so generously given. You may rest assured that your efforts do not go unrecognised and are greatly appreciated by us all.

By the time this Annual Report is distributed much will have been said regarding the possibility of a closer relationship with members of the Royal Institution of Naval Architects. Should both Councils decide to recommend a merger then this Institute will undertake a Referendum of all its membership to ensure that any such decision will be commensurate with the wishes of a substantial majority. A resounding "Yes" vote will signify the end of two proud Institutions with long standing traditions and yet provide the basis for the development of an integrated profession. A most complex situation for all of us to consider and equally difficult decision to be determined!

There are signs that the industry is beginning to stir, enquiries for new buildings are on the increase as too are the demands for well qualified sea going personnel. The world and its people appears to be passing through a period of circumspection, values are being vigorously reassessed and barriers to closer association removed. Such trends must bode well for the future of world trade and particularly sea transportation. Therefore, I hope that you will join me in looking forward to the dawn of what could prove to be a most exciting and rewarding new century for the Institute and its membership.

Finally, I wish to record my grateful thanks to the Secretary, his staff, the two Deputy Presidents and also my colleagues and friends within the Institute membership who have made this year not only possible but also so enjoyably successful.



# REPORT OF THE COUNCIL 1989

The year was dominated by the Centenary celebrations, their planning and their aftermath. Members from all over the world converged on London in July 1989 to participate in the headquarter's programme, and many of the branches mounted special events of their own.

The aims of the Council in devising the headquarters' programme had been twofold: to underscore the Institute's reputation and standing as a professional institution and learned society; and to celebrate not only the Institute's first 100 years but also the spirit of optimism with which it is entering a second century.

The unanimous verdict is that these aims - which were reflected also in the functions organised by the branches - were achieved. The two major technical conferences reported on below and the social events - a reception in London's Guildhall in the presence of HRH The Duke of Edinburgh, a prestigious Centenary Dinner, a dinner given by the President for Council members past and present and branch officers - were an overwhelming success. At a more relaxed level were a trip on the River Thames for members and their wives, and a varied and interesting ladies' programme. The Bishop of London preached the sermon at a Thanksgiving Service that fittingly inaugurated the week, which was rounded off by a meeting of officers of all the branches and a lunch at which they were joined by the Secretariat and pensioners.

Throughout the year the Institute's other activities - technical meetings and conferences, publishing of Transactions, MER and the Bulletin, social events - continued in parallel with no reduction in intensity.

In order to mark the Centenary in a way that would bring lasting benefit to the community, an appeal was launched in October 1987 to raise funds for a new Mersey Class lifeboat for The Royal National Lifeboat Institution - a lifeboat designed for stations which launch from the shore, and with a speed of more than twice that of its predecessors. At the year-end the appeal stood at £167,000, a sum raised through the generosity of members and companies around the world. The biggest fund-raising event organised by members, a Pro-Am Golf Tournament in London in June 1989, raised



*Officers of the Institute and Clergy at the Centenary Service of Thanksgiving and Rededication held at St. Olave's Church conducted by the Bishop of London (Third from right).*



*Part of the Institute's stand at Expoship '89, held at the Barbican in London, was devoted to the Centenary Lifeboat Appeal.*



*Admiral Sir Julian Oswald GCB, ADC addressing members and guests in his Toast to the Institute at the Centenary Dinner, at Grosvenor House.*

£22,250. The branches meanwhile raised over £20,000 while donations from companies included Caterpillar and Leverton's gift of engines for the boat. Another £33,000 remained to be found to meet the target of £200,000

A new President, Professor R V Thompson, BSc, MEng, PhD, CEng, FIMarE, started his two-year term of office in March 1989; the two Deputy Presidents from that date are Rear Admiral M A Vallis, CB, FEng, FIMarE, and Mr G Geddes, CEng, FIMarE. Mr J McNaught, CEng, FIMarE was re-elected Honorary Treasurer.

Interest in membership was unabated, giving rise to a steady flow of applications for membership and for transfer to higher grades, resulting in an increase for the second year running, the total standing at 16,108 at the year-end.

The Institute took a stand at five major exhibitions in the marine and offshore sectors, primarily with a view to promoting the benefits of membership:

1988	
November:	Expoship Hong Kong
1989	
March:	Marine Indonesia '89
April:	Expoship '89, London
May:	Offshore Technology Conference, Houston
September:	Offshore Europe, Aberdeen

A large fleet of sail training ships was moored in London River in July 1989 for the Tall Ships Race, and the Institute invited an engineer from each ship to a lunchtime reception and talk by the President, Professor Thompson. Crews from countries as disparate as Russia and Portugal came to see what the Institute had to offer its members.

There were a variety of opportunities for fostering good relationships with comparable institutions in Europe. WEMT (West European Conference on Maritime Technology) made additional demands on time as the Secretary, Mr J E Sloggett, agreed to act as Secretary to a small working party set up to consider the future of the organisation and the direction its activities might take. The President of the day, Mr A F Harrold, and the Secretary attended a WEMT Council meeting and conference in



Trieste, Italy, in October 1988, and the working party met in Amsterdam in March 1989.

In March 1989 the Dutch institutions NVTS (Nederlandse Vereniging van Technici op Scheepvaartgebied) and KIVI (Koninklijk Instituut van Ingenieurs) organised a one-day seminar aboard the North Sea ferry Koningin Beatrix to mark the William and Mary TerCentenary and the Institute was represented by Rear Admiral Vallis and the Secretary.

The French institute, Association Technique Maritime et Aéronautique (ATMA), celebrated its Centenary in April 1989; the President and Secretary represented the Institute at the Centenary events.

## LEARNED SOCIETY ACTIVITIES

### *Papers and Conferences*

The 1988/89 programme of meetings and conferences included fifteen evening meetings, one afternoon seminar and four conferences at which a total of one hundred and eleven technical papers were read and discussed.

The conference season began in October 1988 with a three-day conference entitled "Maritime Communications and Control" and was followed by IMAS 89, which this year was organised in association with the Greek Joint Branch and held in Athens with the title "Applications of New Technology in Shipping". There followed two Centenary conferences, the first entitled "Marine Engineering Now and in the Future" held at headquarters during the first two days of Centenary week and the second, entitled "Past, Present and Future Engineering in the Royal Navy" held at the Royal Naval Engineering College, Manadon in September 1989. All conferences were well attended and the quality of papers presented was of a high standard. The proceedings of these conferences were subsequently published.

The Technical Papers and Conferences Committee met on five occasions, the Marine Electrical Sub-Committee twice and the Joint Offshore Group Committee on five occasions. A comprehensive programme of evening meetings, seminars and conferences was planned for the forthcoming year.

The Publications Working Group continued its work in updating existing publications and commissioning new titles.

In July 1989 the Institute hosted and organised the WEGEMT Twelfth Graduate Summer School and this year's theme was "Propulsion Systems". Lecturers and delegates from Western Europe, the Middle and Far East, Canada, North and South America attended the School over four days, which provided a modern perspective to the appreciation of problems in propulsion systems design and gave delegates an insight into future developments.

### *Information Services*

The year saw further development of the information services, the most noticeable of which were the changes made in MER, the Bulletin and the Transactions. With further extension of the desk top publishing equipment, all publications are now prepared inhouse giving the editorial staff complete control over design and layout while permitting the most up-to-date news and topics to be included.

Four supplements were included with MER during the year - a Directory of British Marine Equipment Council members and their products, a Diesel Engine directory and Offshore supplements to coincide with Offshore Technology Conference (OTC) at Houston, USA and Offshore Europe, Aberdeen in the UK.

Advertising revenue from MER further increased and reflects MER's position as the most widely read of marine journals and its value in introducing manufacturer and suppliers services and products into the market place.

A special issue of the Bulletin was prepared to mark the Institute's Centenary and full colour was used in the Bulletin for the first time. Preprints and Proceedings were prepared for each of four conferences held during 1988/9. The Centenary Handbook sent to all members was prepared entirely inhouse using the desk top equipment.

### *Marine Information Centre*

Visitors to the library and enquiries, 25% up on the previous year, demonstrated the increasing value of the computerised retrieval system introduced in 1986. The database

contains full details of all of the books held in the library, abstracts of MER and of Transactions going back to 1960, abstracts of RINA and SNAME Transactions from 1970 onwards, and details of the papers read at some 1200 conferences worldwide in recent years.

## DIVISIONS AND BRANCHES

### *Australia/New Zealand Division*

A proposal to appoint a Divisional Vice President for the Australia/New Zealand Division was approved by Council in December 1988. It was seen as a supportive role to the Divisional President, thus ensuring the Institute continued to have high level representation in Australia and New Zealand.

### *Branches*

Headquarters continued to provide the usual support services to branches, which are now all funded on a budget basis, with the exception of joint branches, which still receive a basic and per capita grant.

The annual meeting of Branch Honorary Officers was held in March 1989 at headquarters and all the UK branches were represented. Also in attendance were representatives from Cork, Dublin, Greece, Malta and The Netherlands. The meeting took a different format from previous years, being divided into two sessions, the first of which was chaired by the Secretary and dealt with purely administrative matters. The second session chaired by the President concentrated on future Institute policy in respect of RINA/IMarE merger, future development, overseas membership and education and training.

A further meeting of Branch Honorary Officers at which all branches worldwide were represented took place during Centenary week in July 1989 and took the form of an open forum. Many branches found imaginative and impressive ways of marking the Centenary, some of which were designed also to raise funds for the Lifeboat Appeal.

In April 1989 the Secretary, after attending Marine Indonesia, went on to Singapore with the Manager, Professional Affairs, where they met the branch Committee and visited

Singapore Polytechnic. They subsequently visited the Malaysia Joint Branch and also the Universiti Teknologi Malaysia.

The President and Secretary attended the IMAS 89 conference in Athens in May 1989(see below), and the President then visited the Malta Joint Branch, where he attended a Centenary lecture and Annual Dinner and Dance.

Initial moves were underway in the formation of a new joint branch in South Korea with The Royal Institution of Naval Architects; it will be the Institute's 37th branch.

A full report on branch activities appears on page 23.

## MEMBERSHIP

Regular meetings of the Membership Committee were held throughout the year to assess applications for election and transfer to the various classes of membership. Applications from 71 Associate Members for transfer to the class of Member (5% Rule) have been approved since By-Law 5 (2) was introduced early in the year. Initial problems arising from the Professional Review procedures were resolved, and interviews proceeded with few difficulties. The co-operation and assistance of branch members does much to assist the Secretariat and the Committee in keeping the extra workload within acceptable limits, and their efforts are appreciated. Over 1023 applications for election and transfer were considered by the Membership Committee and it is pleasing to note that during Centenary year membership numbers increased to a total of 16,108.

An increasing number of applications were received from members seeking registration on the Group 1 Register of the European Federation of National Engineering Associations (FEANI), and subsequent registration as European Engineers. Members wishing to use this title should apply to the Membership Officer for application forms.

The Institute continued to take an active part in the discussions on the European General Directive for the mutual recognition of Higher Diplomas, and is also responding to a proposal for a Second General Directive for the mutual recognition of Diplomas which may apply to Incorporated Engineers and Engineering Technicians.

The Institute has also been closely involved with the deliberations of the Merchant Navy Training Board (MNTB) Strategic Policy Committee (SPC) which was established to formulate a more flexible framework of qualifications and training for British seafarers.

## Employment Register

Enquiries and registrations associated with this service to members continued at a steady pace and a number of successful placements negotiated.

## Subscriptions

Council decided that subscriptions for 1989/90 would be maintained at the level set for the previous year. The structure of the subscription rate based on class, length of membership, age and country of residence will also be maintained. It was also decided that the offer of free membership to students following full-time Institute accredited/ approved courses leading to a CEng or IEng Stage 1 registration with the Engineering Council would be continued.

Full details of the IMarE subscription rates and Engineering Council fees for 1989/90 will be found on Page 22.

## EDUCATION AND TRAINING

Five meetings of the Professional Affairs and Education Committee (PAEC) were held when various papers, working group reports and Engineering Council documents were discussed and acted upon. Those considered included:-

Engineering Technicians:  
Alternative Routes to Registration.

Address to the Second Engineering Profession Forum: "The Profession After 1992".

Polytechnics and Colleges Funding Council (PCFC) Consultative Document.

Institute Policy Towards Continuing Education and Training.

Engineering Council Industry Matters Publication.

University Enterprise Training Partnership in Marine Science and Technology.

Report on the Second World Conference on "Engineering Education for Advanced Technology" - Sydney, Australia.

During the year the IMarE/RINA Joint Assessment Panel accredited:-

SCOTVEC Higher National Certificate in Multi-Disciplinary Engineering associated with the Aberdeen Technical College Shell Expro Technician Training Scheme (SETTS) for registration at Stage 1 of the Engineering Council Incorporated Engineer Register.

BTEC Diploma in Marine and Fabrication Engineering, Haking Wong Technical Institute, Hong Kong. Stage 1, Engineering Council Engineering Technician Register.

Bachelor of Engineering (Hons) in Engineering. Royal Naval Engineering College, Manadon, Plymouth. Stage 1, Engineering Council Chartered Engineer Register.

BTEC HND (Engineering) Maritime Studies. Southampton Institute of Higher Education, Warsash Campus. Accredited for Stage 1, Engineering Council Incorporated Engineer Register.

Working Groups were established to consider the accreditation of the following submissions:-

- (i) Advanced Certificate of Marine Engineering. Fremantle College, Australia.
- (ii) Associate Diploma of Engineering (Marine). Fremantle College, Australia.
- (iii) Bachelor of Applied Science (Marine Engineering) Degree. Australian Maritime College, Launceston, Tasmania.
- (iv) Department of Transport Class 1 and Class 2 Certificates of Competency (UK).
- (v) Higher National Diploma in Aeronautical, Marine and Mechanical Engineering. Hong Kong Polytechnic, Hong Kong.

The Professional Affairs and Education Committee also accredited the following courses for Stage 2 registration on the Engineering Council Incorporated Engineer Register.

- (i) Shell Expro Technicians Training Scheme. Altens Centre, Aberdeen Technical College.

(ii) BTEC HND (Engineering) Maritime Studies. Southampton Institute of Higher Education, Warsash Campus.

The Royal Navy Machinery Charge Qualification (MCQ) was accredited for registration at Stages 2 and 3 of the Engineering Council Chartered Engineer Register, and exemption was given from Stages (b) and (c) of the Professional Review.

Every encouragement continued to be given to members and non-members seeking election to Corporate membership and Chartered Engineer registration through the Mature Candidate Route. Support was also given to members suffering financial hardship whilst studying on courses accredited for registration at Stage 1 of the Engineering Chartered Engineer Register through Supplementary Grants. Such grants to the value of £26,281 were awarded during the year. Details are given on Page 9.

Scholarships to the value of £800 p.a. were awarded to students at The University of Newcastle-upon-Tyne, The University of Surrey, Liverpool Polytechnic and the Hong Kong University. The award of Lloyd's Register of Shipping Scholarship was again administered by the Institute.

## ENGINEERING COUNCIL

As a result of a re-assessment undertaken by a panel of the Engineering Council's (EC) Nominations Committee in February 1989, the Institute has been certified by the EC for inclusion in the Council's list of Nominated and Authorised Bodies for each Section and Stage of the EC Register until April 1994. The Institute may, therefore, continue to award the titles Chartered Engineer, Incorporated Engineer and Engineering Technician to those of its members who are appropriately qualified, and is authorised to accredit academic courses, industrial training programmes and arrangements for responsible experience for each category of engineer.

The Engineering Council Executive Group Committee 5 (EGC5) met on four occasions during the year. A wide range of subject matter was dealt with including the drafts of second edition of "Standards and Routes to Registration" (SARTOR) which is to reflect

developments that have taken place since it was first published in 1984, Continuing Education and Training (CET) pilot schemes and the proposed CET code of practice, alternative routes to registration as an Engineering Technician, Open University Degree profiles, Integrated Engineering Degree programmes and mutual recognition of accredited degrees.

Of particular note was EGC5 approval of the Royal Navy Machinery Charge Qualification in lieu of the Professional Review interview and report requirements of SARTOR as they were considered inherent in the R.N. formation procedures for engineers. Careful attention was also given to the proposed Affiliation Agreement between the Hong Kong Institute of Engineers (HKIE) and the Institution of Civil Engineers and the impact this would have on Institute members in Hong Kong who, in due course, wish to gain inclusion on the Hong Kong Register of Engineers without joining HKIE. At the year end it was believed that members' interests have been protected in this regard. The President and Secretary attended the Engineering Profession Forum in December 1988.

## JOINT LIAISON (IMARE/RINA MERGER)

In February 1989 Council considered the financial and administrative considerations relating to a possible merger with the Royal Institution of Naval Architects, and as a result it was agreed that progress should be made in this respect. Subsequently, a Merger Discussion Group was formed to agree broad principles of merger for further discussion by both Councils and subsequent agreement by the respective memberships. As a result meetings of the Joint Liaison Committee were suspended. Relationships with RINA also continued to develop through the work of the Joint Offshore Group and the Joint Accreditation Panel, as well as in the joint branches. In November 1988 the IMarE Council hosted a dinner for members of the RINA Council, which was well attended and much enjoyed.

## SOCIAL EVENTS

Undeniably the highlight of the social events calendar was the week of Centenary Celebrations in July 1989 detailed earlier in this report.

The customary *Conversazione* was held in December in the Ballroom, Grosvenor House at which £3,400 was raised for the Guild of Benevolence. The 86th Annual Dinner took place in the Great Room, Grosvenor House in March 1989, the principal guests being the Rt. Hon. Peter Shore MP and Mr Tom O Leith OBE.

## FINANCE

The format of the Financial Statements on pages 10 to 16 has been rearranged. One consequence of this is the deletion of the Consolidated Appropriation Account and the transfer of the pertinent sums to the Consolidated Revenue Account on page 10. Other changes have been made including a statement on institute pensions.

The Revenue Account shows that the subscription income compared with last year is down by £25,399, and owing to a rent review on the Memorial Building, the income increased by £597,268. The income from dividends and interest and sales of investments improved by £73,495 and £46,616 respectively.

On the expenditure side, an allowance of £390,000 has been made for amortisation of the Memorial Building for the first time, and an amount of £362,873 for the centenary events. The surplus for the year was £98,164.

The centenary expenses included payment of fare and hotel bills to allow officers of all branches of the Institute to attend the main events in London, including a Technical Conference, a centenary dinner and a Branch Officers' meeting. Assistance was also given where required for branches to celebrate the Centenary in their own way.

Owing to the increased rentals for the Memorial Building and the non recurrence of high centenary costs, the surplus for next year is expected to be in the region of £900,000.

## COUNCIL ADVISORY GROUPS

### *Office Bearers' Affairs*

Nominations for office holders of the Institute were approved and representatives on external organisations appointed. Two new committees were established: External Policies - as a group of the Council



Advisory Committee, and Technical Affairs - reporting to the Board of Marine Management (Holdings) Limited. Corresponding members were appointed for the first time for the Sultanate of Oman and South Africa.

### By-Laws

An Order of Council was granted by the Privy Council in August 1989, granting the Institute a Supplemental Charter and allowing alternations and amendments to the By-Laws of the Institute, approved by the membership at an Extraordinary General Meeting in November 1988. This takes account of the change of title from Technician Engineer to Incorporated Engineer.

## MEMORIAL BUILDING

The Building Maintenance Committee met on six occasions during the year to ensure the continued operation and management of the Memorial Building through the services provided by the Institute's Managing Agents.

## CITY CONFERENCE CENTRE

The Conference Centre continued to maintain its position as one of London's leading small venues, and hosted seminars for many important blue-chip companies. The computerised diary and events system is now fully operational and has led to an effective, integrated administration process with an automatic accounting up-date.

The City Conference Centre was represented for the first time at Confex 89, the industry's major trade exhibition. A specially designed stand beside the main aisle ensured a good stream of visitors and to date over ten major conferences have been booked for 1990 as a direct result of attendance at this event.

## HONOURS AND AWARDS AND PRIZES

### New Year's Honours

M Meek (Fellow) - CBE

### Birthday Honours

Rear Admiral R A Isaac (Fellow) - CB  
H A Clements (Fellow) - CBE  
Commander M G C Tanner RN (Member) - OBE

## Institute Awards and Prizes

### 1989 Silver Jubilee Medal

Awarded to Lieutenant P D Gilbert RN - the most outstanding marine engineer officer in training at the Royal Naval Engineering College, Manadon

### 1989 BiCentenary Silver Medal

Awarded biannually to the most outstanding marine engineering officer in training in the Royal Australian Navy:

Sub Lieutenant D Sands RAN  
Sub Lieutenant C D Bourke RAN

### 1988/89 Denny Gold Medal

To Dr P S Katsoulakos and Dr C P W Hornsby of Lloyd's Register for their paper entitled "Expert systems and marine applications" presented at the Institute on 18th October 1988

### 1988/89 Silver Medal

To B Lindberg, K McFadyen and R Fulton for their paper entitled "The dispersion of gases in offshore platforms" presented at the Institute on 21st February 1989

### 1988/89 Stanley Gray Award

Not awarded

### The Herbert Akroyd Stewart Award 1987/89

No paper from the 1987/89 sessions identified for this award

### The Percy Jackson Diesel Engine Award 1987/89

No paper from the 1987/89 sessions identified for this award.

### 1988 W W Marriner Extra First Class Certificate of Competency Award

P J Williams

### 1988 W W Marriner Memorial Prize, Class 2 Certificate of Competency

G Moores

### 1988 William Theodore Barker Award, Class 1 Certificate of Competency

Not awarded

### 1988 Scholarship Awards

Hong Kong University Cheuk Man Fai  
Tang Chak Tin  
Liverpool Polytechnic Miss S Raper  
University of Newcastle-upon-Tyne P Ramsden  
S H. Grant  
University of Surrey P Rana

## 1988 Book Awards

Liverpool Polytechnic M N Morgan  
University of Newcastle-upon-Tyne J M J Souster  
University of Surrey J Davis

## 1988 Marine Engineer Cadet Prizes

Southampton Institute of Higher Education, Warsash Said Al Mugheri  
Polytechnic of the Southwest R W Young  
South Merseyside College A Owen  
South Tyneside College J Gouch  
Glasgow College of Nautical Studies I Ross

Other prizes and awards are detailed in branch reports

## Supplementary Grants

### Degree Courses

Aberdeen University	1
Coventry Polytechnic	1
Cranfield Institute	1
Glasgow University	1
Heriot-Watt University	2
Liverpool Polytechnic	26
Michigan University	1
University of Newcastle upon Tyne	36
Robert Gordon Institute	1
Sheffield University	1
Strathclyde University	1
University of Surrey	1
Teeside Polytechnic	1
Ulster University	1
University College, Swansea	1

### Extra First Class Certificate of Competency

South Tyneside College	9
Glasgow College of Nautical Studies	1

### Engineering Council Part 2 Examination

Southampton Institute of Higher Education	3
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R V Thompson (President)

J E Sloggett (Secretary)

# FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 SEPTEMBER 1989

## Consolidated Revenue Account

	Notes	1989	1988
		£	£
<b>Income</b>			
Members' subscriptions, entrance fees and registration fees		<u>£553,907</u>	<u>£579,306</u>
<b>Less: costs of services provided for members</b>			
<b>Direct expenditure on employer's staff costs and supplies:</b>			
<b>Technical services:</b>			
Publications		335,790	274,908
Marine Information Centre		83,806	67,125
Sessions and Conferences		53,006	19,775
Education and Training		50,040	37,688
		<u>522,642</u>	<u>399,496</u>
Educational Grants and Prizes		37,487	36,667
Divisions and Branches		73,455	56,128
Development including Public Relations		58,906	51,962
		<u>692,490</u>	<u>544,253</u>
<b>Indirect expenditure on employer's staff costs and supplies:</b>			
Membership and maintenance of register		106,589	101,979
Council and Committees		90,727	76,992
		<u>197,316</u>	<u>178,971</u>
<b>Administration:</b>			
Employer's staff costs		238,969	182,618
Overheads including occupancy costs		456,668	533,520
		<u>695,637</u>	<u>716,138</u>
<b>Less: allocated to other income - see below</b>		<u>116,284</u>	<u>94,896</u>
		<u>579,353</u>	<u>621,242</u>
		<u>£1,469,159</u>	<u>£1,344,466</u>
<b>Excess of expenditure over income from members</b>		<u>£915,252</u>	<u>£765,160</u>
<b>Investment income:</b>			
Property		1,604,774	1,007,506
Dividends and interest	2	252,160	178,665
		<u>1,856,934</u>	<u>1,186,171</u>
<b>Books and technical papers sold to non-members</b>		23,255	32,325
<b>Adjustments arising from foreign exchange fluctuations</b>		(3,211)	(3,183)
		<u>1,876,978</u>	<u>1,215,313</u>
<b>Less: Administration costs - see above</b>		<u>116,284</u>	<u>94,896</u>
Provision for property maintenance	9	58,060	83,087
Amortisation of Memorial Building	5	390,000	-
		<u>1,312,634</u>	<u>1,037,330</u>
<b>Add: Profit on sale of investments and fixed assets</b>		<u>63,655</u>	<u>17,039</u>
		<u>1,376,289</u>	<u>1,054,369</u>
Surplus on ordinary activities	3	461,037	289,209
Extraordinary item: Centenary events		362,873	-
<b>Surplus for the year transferred to reserves</b>	<b>11</b>	<u>£98,164</u>	<u>£289,209</u>

## Consolidated Balance Sheet

	Notes	£	1989 £	£	1988 £
<b>Fixed assets</b>					
Tangible assets	5		26,141,387		26,522,988
Investments	6		2,307,849		2,041,405
			<u>28,449,236</u>		<u>28,564,393</u>
<b>Current assets</b>	7	1,137,445		642,524	
<b>Creditors: Amounts falling due within one year</b>	8	704,444		<u>460,167</u>	
<b>Net current assets</b>			<u>433,001</u>		<u>182,357</u>
<b>Total assets less current liabilities</b>			<u>28,882,237</u>		<u>28,746,750</u>
<b>Provisions for deferred liabilities</b>	9		356,107		318,784
			<u>£28,526,130</u>		<u>£28,427,966</u>
<b>Represented by:</b>					
<b>General Fund</b>	11		5,015,465		4,563,416
<b>Revaluation Reserve</b>	11		23,510,665		23,864,550
			<u>£28,526,130</u>		<u>£28,427,966</u>

## The Institute Balance Sheet

<b>Fixed assets</b>					
Tangible assets	5		25,943,325		26,310,866
Investments	6		2,307,849		2,041,405
Investment in subsidiary			30,000		30,000
			<u>28,281,174</u>		<u>28,382,271</u>
<b>Current assets</b>	7	1,094,937		696,144	
<b>Creditors: Amounts falling due within one year</b>	8	493,874		<u>335,875</u>	
<b>Net current assets</b>			<u>601,063</u>		<u>360,269</u>
<b>Total assets less current liabilities</b>			<u>28,882,237</u>		<u>28,742,540</u>
<b>Provisions for deferred liabilities</b>	9		356,107		318,784
			<u>£28,526,130</u>		<u>£28,423,756</u>
<b>Represented by:</b>					
<b>General Fund</b>	11		5,015,465		4,559,206
<b>Revaluation Reserve</b>	11		23,510,665		23,864,550
			<u>£28,526,130</u>		<u>£28,423,756</u>

R. V. Thompson (President)

J. McNaught (Honorary Treasurer)

## Report of the Auditors

To the members of The Institute of Marine Engineers

We have audited the financial statements on pages 10 to 16 in accordance with Auditing Standards.

In our opinion the financial statements give a true and fair view of the state of affairs of the Group and of the Institute at 30 September 1989 and of the Group income and expenditure and source and application of funds for the year then ended and have been properly prepared in accordance with the Companies Act 1985.

Kreston House,  
8 Gate Street,  
London WC2A 3HJ

FINNIE & CO  
Chartered Accountants  
12 December 1989

# Notes to the Financial Statements

## 1 Accounting policies

### a Basis of accounting

The financial statements are prepared under the historical cost convention as modified by the revaluation of the leasehold property.

### b Basis of consolidation

The financial statements incorporate the results of the wholly owned operating subsidiary for the year to 30 September 1989.

### c Format of financial statements

As permitted by Section 228(7) of the Companies Act, 1985 a separate Revenue Account of the Institute is not presented as part of the financial statements.

### d Amortisation and depreciation

Leasehold property is amortised so as to write off the revalued cost of the property over the remaining life of the lease. Equipment is depreciated on a straight line basis, at annual rates of 15% to 25%, to write off the cost of assets over their estimated useful lives.

### e Stocks

Book stock is stated on the basis of a base stock value of £20,000. All other stocks are stated at the lower of cost and net realisable value.

### f Foreign currency

Bank balances held abroad are translated at the rates of exchange ruling on 30 September 1989. All gains or losses arising on translation have been dealt with in the Revenue Account.

### g Subscription income

Subscription income is included in the financial statements on a receipts basis adjusted for subscriptions received in advance. No credit is taken for arrears of subscriptions.

### h Investment income

Dividends and interest are included in the financial statements on a receipts basis.

### i Pension Costs

With effect from 1989, the Institute has implemented the requirements of Statement of Standard Accounting Practice 24 in respect of pension cost reporting. Details of the pension scheme are set out in Note 14.

### j Rental and service charge income

Rental and service charge income is included in the financial statements on a receivable basis.

### k Leasing

Rentals paid under operating leases are charged to the Revenue Account on an accruals basis.

### l Taxation

The Institute is a registered charity and is not subject to taxation. Its subsidiaries are subject to Corporation Tax.

## 2 Dividends and interest

	1989	1988
	£	£
Income from fixed assets investments	140,528	145,586
Other interest receivable	111,632	33,079
	<u>£252,160</u>	<u>£178,665</u>

## 3 Surplus for the year is stated after charging

Depreciation	£85,900	£74,038
Auditor's remuneration	£20,000	£15,000
Amortisation	<u>£390,000</u>	<u>-</u>

The surplus dealt with in the financial statements of the Institute amounted to £102,374 (1988:£289,209)

## 4 Staff costs

Wages and salaries	747,619	632,130
Social security costs	55,683	47,699
Other pension costs	107,630	77,902
	<u>£910,932</u>	<u>£757,731</u>

The average number of employees during the year was made up as follows:

	Number	Number
Publications	16	15
Administration	14	14
Other direct and indirect costs	10	10
Property	<u>13</u>	<u>11</u>
	<u>53</u>	<u>50</u>

No member of the Council receives remuneration from the Institute in respect of their office.

One employee receives remuneration in the band £30,000 to £35,000. (1988: Nil)

## 5 Tangible Fixed Assets

### The Group

	Long Leasehold Property £	Equipment £	Total £
<b>Cost or Valuation</b>			
At 1 October 1988	26,300,000	545,271	26,845,271
Additions	27,477	66,822	94,299
At 30 September 1989	<u>£26,327,477</u>	<u>£612,093</u>	<u>£26,939,570</u>
<b>Accumulated depreciation:</b>			
At 1 October 1988	-	322,283	322,283
Charge for the year	390,000	85,900	475,900
At 30 September 1989	<u>£390,000</u>	<u>£408,183</u>	<u>£798,183</u>
Net book value:			
At 30 September 1989	<u>£25,937,477</u>	<u>£203,910</u>	<u>£26,141,387</u>
At 30 September 1988	<u>£26,300,000</u>	<u>£222,988</u>	<u>£26,522,988</u>

### The Institute

<b>Cost or Valuation</b>			
At 1 October 1988	26,300,000	125,160	26,425,160
Additions	27,477	-	27,477
At 30 September 1989	<u>£26,327,477</u>	<u>£125,160</u>	<u>£26,452,637</u>
<b>Accumulated depreciation:</b>			
At 1 October 1988	-	114,294	114,294
Charge for the year	390,000	5,018	395,018
At 30 September 1989	<u>390,000</u>	<u>£119,312</u>	<u>£509,312</u>
<b>Net book value:</b>			
At 30 September 1989	<u>£25,937,477</u>	<u>£5,848</u>	<u>£25,943,325</u>
At 30 September 1988	<u>£26,300,000</u>	<u>£10,866</u>	<u>£26,310,866</u>

The long leasehold property, the Memorial Building, was valued at £26,300,000 for the purpose of the 1988 accounts. The historical cost of the Memorial Building at 30 September 1989 was £2,462,927 (1988: £2,435,450) and the net book value based on this amount would have been £2,426,812 (1988: £2,435,450).

## 6 Investments

### The Group and the Institute £

<b>Cost</b>	
At 1 October 1988	2,041,405
Additions	274,996
Disposals	(805,256)
	<u>1,511,145</u>
Cash held for re-investment	796,704
	<u>£2,307,849</u>

The above investments consist of Gilt-Edged Stocks and Equities, which are listed on a recognised Stock Exchange, and unit trusts. The value of the listed investments at 30 September 1989 (using middle market prices) was £1,840,721 (1988: £2,188,038), being £329,576 (1988: £146,633) above cost.

7 Current Assets	The Group		The Institute	
	1989	1988	1989	1988
	£	£	£	£
Stocks (see below)	35,958	44,252	-	-
Debtors	390,394	268,234	277,520	149,950
Rent and service charges in arrears	281,133	13,292	281,133	13,292
Prepayments	48,916	51,918	13,350	43,687
Cash at Bank and in hand	323,976	209,562	282,601	198,566
Cash at Bank held overseas	57,068	55,266	57,068	55,266
Amount due from subsidiary company	-	-	183,265	235,383
	<u>£1,137,445</u>	<u>£642,524</u>	<u>£1,094,937</u>	<u>£696,144</u>
Stocks and work in progress (see Note 1(e), page 12)				
Stock of books and publications	20,000	20,000		
Stock of paper for journals	3,524	17,063		
Sundry consumables	12,434	7,189		
	<u>£35,958</u>	<u>£44,252</u>		

8 Creditors: amounts falling due within one year	The Group		The Institute	
	1989	1988	1989	1988
	£	£	£	£
Creditors	349,314	276,540	151,147	159,717
Rents and Service Charges in advance	200,895	122,719	200,895	122,719
Subscriptions in advance	48,332	22,295	48,332	22,295
Accruals	105,903	38,613	93,500	31,144
	<u>£704,444</u>	<u>£460,167</u>	<u>£493,874</u>	<u>£335,875</u>

9 Provisions for deferred liabilities	The Group and The Institute	
	1989	1988
	£	£
Provision for property maintenance		
At 1 October 1988	318,784	309,107
Charge to Revenue Account	58,060	83,087
	<u>376,844</u>	<u>392,194</u>
Less: Expenditure incurred during the year	20,737	73,410
At 30 September 1989	<u>£356,107</u>	<u>£318,784</u>

#### 10 a) Assets held in respect of Property Maintenance Fund

	1989	1988
	£	£
Investments at cost	377,004	377,004
Cash on deposit	290,500	190,723
Amount due from tenants	17,029	15,283
	<u>£684,533</u>	<u>£583,010</u>
<b>b) Property maintenance fund</b>		
At 1 October 1988	583,010	583,384
Amounts receivable from tenants	82,196	82,222
Dividends and interest	59,189	51,659
	<u>724,395</u>	<u>717,265</u>
Expenditure incurred during the year	39,862	134,255
	<u>684,533</u>	<u>583,010</u>

The Fund arises from the requirement for tenants to pay an annual sum towards anticipated expenditure on those parts of the leasehold property in common with the Institute.

The investments consist of Gilt-Edged Stocks, all listed on a recognised Stock Exchange and valued at cost. The value of the listed investments at 30 September 1989 (using middle market prices) was £354,076 (1988: £377,187), being £22,928 below (1988: £183 above) cost.

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## 11 Reserves

	General Fund	Revaluation Reserve
	£	£
<b>The Group</b>		
Balance at 1 October 1988	4,563,416	23,864,550
Surplus for the year	98,164	-
Release of amortisation on Revaluation Reserve	353,885	(353,885)
Balance at 30 September 1989	<u>£5,015,465</u>	<u>£23,510,665</u>
<b>The Institute</b>		
Balance at 1 October 1988	4,559,206	23,864,550
Surplus for the year	102,374	-
Release of amortisation on Revaluation Reserve	353,885	(353,885)
Balance at 30 September 1989	<u>£5,015,465</u>	<u>£23,510,665</u>

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## 12 Capital commitments

	1989	1988
	£	£
Expenditure contracted for but not provided in the Financial Statements.	-	-
Expenditure authorised but not contracted for	<u>£60,795</u>	<u>£47,400</u>

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## 13 Operating Leases

	Land & Buildings	Others
	£	£
At 30 September 1989 the group has annual commitments under operating leases which expire:		
within one year	-	1292
in the second to fifth years inclusive	-	1283
after five years	35,222	17834
	<u>£35,222</u>	<u>£20,409</u>

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## 14 Pensions

The Institute operates a non-contributory pension scheme providing benefits based on final pensionable pay. The assets of the scheme are held separately from those of the Institute being invested with insurance companies. Contributions by the Institute to the scheme are charged to the Revenue Account so as to spread the cost of pensions over employees' working lives with the Institute. The contributions are determined by a qualified actuary on the basis of triennial valuations using the projected unit method. The most recent valuation was at 1 October 1986. The assumptions, as subsequently modified, which have the most significant effect on the results of the valuation are those relating to the rate of return on investments and the rates of increase in salaries and pensions. It was assumed that the investment returns would be 9% per annum, that salary increases would average 8% per annum and that present and future pensions would increase at the rate of 3% per annum.

The pension charge for the year was £107,630 (1988: £77,902)

The most recent actuarial valuation showed that the market value of the scheme's assets was £353,000 and that the actuarial value of those assets represented 122% of the benefits that had accrued to members, after allowing for expected future increases in earnings. The contributions of the Institute are 17.1% of earnings.

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## 15 Subsidiary companies

The wholly owned subsidiary companies, which are both registered in England, are:

Marine Management (Holdings) Limited - engaged in activities largely related to the needs of the marine engineer,  
and Marine Activities Management Limited - dormant.

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## 16 Approval of Financial Statements

These Financial Statements were approved by Council on 12 December 1989.

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## 17 Awards Funds

The Institute manages as Trustee a number of Awards Funds as indicated below:

Fund	Income Accounts			Net balance 30.9.89	Capital Balances	Total Balances
	Net balance 1.10.88	Income	Expenditure			
	£	£	£	£	£	£
Herbert Ackroyd Stuart	1,763	278	-	2,041	699	2,740
W. W. Marriner	4,036	702	450	4,288	4,163	8,451
Denny Gold Medal	1,249	294	1,315	228	734	962
Frank Roberts	223	32	-	255	221	476
Percy Jackson Diesel Engine	1,767	238	-	2,005	954	2,959
William Theodore Barker	9,568	1,091	-	10,659	3,000	13,659
Stanley W. H. Gray	79,711	11,795	-	91,506	28,654	120,160
	<u>£98,317</u>	<u>£14,430</u>	<u>£1,765</u>	<u>£110,982</u>	<u>£38,425</u>	<u>£149,407</u>

The assets representing the Awards Funds comprise cash £49,312 (1988: £36,647) and quoted securities at cost £100,095 (1988: £100,095). The quoted securities, which are Gilt-Edged Stocks, have been valued at 30 September 1989 at middle market prices and on this basis their market value at that date was £7,048 above their cost (1988: £13,092 above their cost).

## Consolidated Statement of Source and Application of Funds

	Note	1989	1988
		£	£
<b>Source of Funds</b>			
Generated from operations	1	931,342	429,295
Proceeds of sales of investments		868,911	298,483
Proceeds of sales of fixed assets		-	3,774
Decrease in net working capital	2	-	39,100
		<b>1,800,253</b>	<b>770,652</b>
<b>Application of Funds</b>			
Additions to leasehold property		27,477	258,086
Purchase of investments		274,996	254,251
Purchase of equipment		66,822	88,882
Property maintenance expenditure		20,737	73,410
Centenary events costs		362,873	-
Increase in net working capital	2	134,428	-
		<b>887,333</b>	<b>674,629</b>
Increase in cash resources		<b>£912,920</b>	<b>£96,023</b>
<b>Notes:</b>			
1 Generated from operations:			
Surplus for the year on ordinary activities		461,037	289,209
Adjustment for items not involving the movement of funds:			
Provision for property maintenance		58,060	83,087
Amortisation		390,000	-
Depreciation		85,900	74,038
Profit on sale of fixed assets		(63,655)	(17,039)
		<b>931,342</b>	<b>429,295</b>
2 Increase/(Decrease) in net working capital:			
Stock		(8,294)	3,738
Debtors and Prepayments		386,999	52,584
Creditors and Accruals		(244,277)	(95,422)
		<b>134,428</b>	<b>(39,100)</b>



# TECHNICAL PAPERS AND CONFERENCES 1988/89

## TECHNICAL PAPERS

“The developments of diverless subsea production systems” by S M Adamson (Fellow), Fuel Subsea Engineering Ltd, 4 October 1988.

“Development of merchant ship propulsion machinery over the past 25 years” by A F Harrold (President) 11 October 1988.

“Expert systems and marine applications” by Dr P S Katsoulakos (Fellow) and Dr C P W Hornsby, Lloyds Register, 18 October 1988.

“The solution of machinery problems by field investigation” by F Kunz, Lloyds Register, 8 November 1988.

“The use of explosion-bonded transition joints for joining aluminium superstructures to steel” by Lt Cdr K R Trethewey and Sub Lt G T Little, RNEC Manadon, 15 November 1988.

“The evolution of lubrication for marine propulsion systems” by R F Thomas (Fellow), BP Marine International, 6 December 1988.

“Quality and reliability of flexible steel pipes” by J Mallen, P Estrier and S Amilhau, Coflexip and BV, 10 January 1989.

“Marine insurance now and in the future” by A S Nunn, Scottish Lion Insurance, 24 January 1989.

“The International Maritime Organization and national administrations” by Dr J Cowley, (Fellow), Britship (IOM) Ltd, 7 February 1989.

“Uncertainties in the estimation of fluid loading on offshore structures with special emphasis on wind forces” by S Singh, BMT, 14 February 1989.

“The dispersion of gases in offshore platforms” by B Lindburg et al, Flakt Marine Climate AB, 21 February 1989.

“Advances in condition monitoring” by S Drew, YARD, 14 March 1989.

Diving and subsea vehicles - past, present and future trends:- Seminar 4 papers presented on 28 March 1989.

a) “The history of commercial, military and sport diving” by Sir John Rawlins.

b) “Duplus - a case study in dual control submersibles” by D J Hampson, OSEL Group.



*Captain R G Hastlow of the Royal Navy Presentation Team at the Centenary Conference, Manadon.*



*The Institute booth at the Centenary Year Conference - Past, Present and Future Engineering in the Royal Navy.*



*Overseas speakers at the International Conference on Maritime Communications and Control, October 1988.*

c) “Diving at 520 m on hydrogen-helium-oxygen mixed gas from dynamically positioned diving support vehicle *Orelia*” by J H Puckett and A P Bartholomew Houlder Offshore Engineering Ltd.

d) “Control of remotely operated vehicles (ROVs) in the future” by K B London and R R Chapman RUMIC Ltd.

“Automatic draught gauge systems” by A Coyston, Dive Time Systems, 4 April 1989.

“Validation of the Type 23 propulsion plant design” by G A McDougal, YARD, 2 May 1989.

“Diesel engines in hazardous areas on offshore installations” by A Sokolov, Lloyds Register, 16 May 1989.

“Fire performance of electric cables” by F McCrudden, Lloyds Register, 24 May 1989.

## INTERNATIONAL CONFERENCES

### *Maritime Communications and Control*

*26-28 October 1988. 26 papers.*

“The MARDIS project, development of marine distributed information support - voyage planning software” by B E M Thomas and T P Whalley, Liverpool Polytechnic.

“A shipwide information distribution and collection system” by R Beams and S Jordan, The College of Maritime Studies and Marconi Software Systems Ltd.

“Computerised maintenance system” by M MacLeod, MacLeod Marine.

“Outline of shipboard administrations and communications” by O Yoshida, Y Suzuki and H Morita, Ishikawajima-Harima Heavy Industries Ltd.

“An appraisal of developments in maritime communications” by G M Mochrie, Peninsular Electronics Ltd.

“Ship/shore emergency shutdown systems” by K Downham, Shell Seatex.

“Electronic cargo control for tankers” by H G Westerlind, Saab Marine Electronics AB.

“Loading stability computer systems for passenger ro/ro vessels” by P M Bennett, R B V Read and R G Ceen, C-Tech Systems Ltd.



"Computer assisted container stowage planning" by Dr P Sen and T Bustfield, University of Newcastle upon Tyne.

"Loading control and ship management software in operation" by B Arndt, Technolog GmbH.

"Benefits of totally distributed control systems" by C T Marwood, Hawker Siddeley Dynamics Engineering Ltd.

"Environmental testing of control equipment" by R Doherty, Lloyd's Register.

"Programmable controller and its concept in marine automation" by D Huang, Qingdao Ocean Shipping Mariner College.

"Super intergrated ship operation control" by H Kanamaru and K Matsuda, Mitsubishi Heavy Industries Ltd.

"Ship of the future - automation for the ship of today by I Ahiqvist, Wartsila Diesel.

"Techniques for the condition monitoring of marine machinery" by A C C Peters, Nigerian National Shipping Line.

"A control and guidance system for ships in port approaches" by Dr R S Burns, Dr M J Dove and K M Miller, Plymouth Polytechnic.

"Vessel traffic systems - present status and future prospects" by P F C Griffiths, Navigation, Communications and Vessel Traffic Marine Systems Consultant.

"An intelligent knowledge based system for marine collision avoidance" by G K Blackwell, Dr B A Colley and Dr G T Stockel, Plymouth Poltechnic.

"A rule based system for collision avoidance" by Dr G P Smeaton, A G Bole and F P Coenen, Liverpool Polytechnic.

"Ship to shore reporting" by Captain F F Weeks, Plymouth Polytechnic.

"DEEDS: the diesel engine expert diagnosis system" by Dr P S Katsoulakos, Dr C P W Hornsby and R Zanconato, Lloyd's Register and Cambridge Consultants Ltd.

"Expert systems for condition monitoring of diesel engines" by R A Richards, Ricardo Consulting Engineers Plc.

"Application of simulation and expert systems to performance/condition monitoring of marine diesel engines" by T Ruxton, K S Hoong and L Isais, University of Newcastle upon Tyne.

"SEAFUEL - an expert system for residual fuel oil handling" by R Ives and Dr I Archibald, Shell Seatex.

"Dynamic interactions and simulation of marine diesel engine governor systems" by Dr A Fowler, University of Newcastle upon Tyne.

### **IMAS '89 - Applications of New Technology in Shipping**

*24-26 May 1989 - 29 papers.*

"The Greek maritime saga" by Captain A I Tzamtzis, Hellenic Maritime Museum.

"Low speed diesel engines" by O Grone and M Jensen, MAN B&W Diesel A/S.

"A new era in ship propulsion" by D Paro, Wartsilla Diesel.

"An engine to meet the market requirements of the 1990s" by G A Lustgarten, P Baumgartner and M C Diggelmann Sulzer Hellas SA.

"Marine auxiliary engine technology" by O Schnohr, MAN B&W Diesel A/S.

"A spectrum of future marine fuels for merchant ships" by R F Thomas, The British Petroleum Company Plc.

"Residual fuels - 'quality per dollar'" by Mrs W Pogonowska- Fabrik and P Holbrook, Caleb Brett International Limited, Lloyd's Register and Fuel Oil Bunker Analysis and Advisory Service (FOBAS).

"Slow-speed crosshead engines: the development of a cost effective cylinder lubricant" by H D Smith and K C Lim, Castrol Ltd.

"The application of 'quality evaluation vibration techniques' on newbuildings, ships in service and offshore structures" by Dr B H Thomas and H W Harper, VCI.

"Predicting the operational characteristics of a marine main propulsion engine under different propeller laws and vice-versa" by Professor D A Kouremenos and Dr J E Margaronis, National Technical University of Athens.

"Concept design and optimisation of a SWATH passenger/ car ferry" by Professor A Papanikolaou, H Nowacki, G Zaraphonitis, A Kraus and M Androulakakis, National Technical University of Athens and T U Berlin, Institut fur Schiffs-und Meerestechnik.

"A method for the preliminary design of passenger/car ferries" by M E Vafiadou and Dr P T Perras, Marine Technology and Development Company SA and National Technical University of Athens.

"Successful applications of side sponsons to car/passenger ferryboats" by Dr T A Loukakakis, C Grekoussis, A Ermogenis and J Kotsios, National Technical University of Athens, Technomarine Ship Consultants and Marine Technical Bureau.

"Aspects of modelling a transport system: the case of the Hellenic Coastal Shipping" by L Kozis, A Papadopoulos and Dr P Stolakis, Marine Technology Development Company SA.

"Developments in cargo access systems during the last decade" by B E K Gilmour, MacGregor-Navire Group.

"Slurry educator with peripheral nozzles for coal handling" by Dr K L Ng and Professor R V Thompson, Nanyang Technological Institute and The University of Newcastle upon Tyne.

"Application of self-tuning techniques to ship autopilot design - a survey" by Q Song, Dr M J Grimble and Dr M R Katebi, Industrial Control Unit and Industrial Systems and Control, Strathclyde University.

"The wake equalising duct" by Professor H Schneekluth, Schneekluth Hydrodynamik.

"In water surveys undertaken in low/ poor underwater visibility conditions" by T P Carter, D N Moore and E Hopkins, Seahorse Industries.

"Ship management and finance" by Professor C Th Grammenos, City University Business School.

"Practical considerations in computerising shipping companies" by P S Katsoulis, Honorary Secretary, Greek Joint Branch of IMarE and RINA.

“Economic models and artificial intelligence techniques for innovation analysis in shipping” by Dr P S Katsoulakos and Y Katsoulacos, Lloyd’s Register and Liverpool University.

“Ship service performance analysis - present capabilities and future trends” by J S Carlton and H D Parsons, Lloyd’s Register.

“Training and manning of ships with multi-national crews from the East in the nineties” by Captain M Z Alam, National Maritime Board, Singapore.

“Information technology” by Dr T A Loukakis, National Technical University of Athens.

“Advanced ship performance information systems” by Dr P S Katsoulakos, Dr C P W Hornsby and R Rowe, Lloyd’s Register.

“A decision support expert system for ship sales/purchase” by Dr N P Kyrtatos, J Tsolkas and G Molin, National Technical University of Athens and Drytank SA.

“The global maritime distress and safety system and maritime satellite communications” by Captain J L Fear, International Maritime Satellite Organization.

“A real time ship steering simulator of a rotated bridge type” by Professor Lu Xiang-run, Wu Ying-guo and Zhang Shu-hui, Dalian Maritime University.

“Hydrodynamic computer programs as tools for economical evaluations” by M Huther and K N Guyen, Research and Development Centre, Bureau Veritas.

**Centenary Year Conference - Marine Engineering Now and in the Future**

**17-18 July 1989 - 11 papers.**

“Developments in marine propulsion systems” by C Archer, Chief Engineer Surveyor, Lloyd’s Register.

“Marine propulsion systems - research for efficiency” by Professor Dr-Ing O Geisler, Technical University of Hamburg-Harburg.

“The economics of ship operation” by Sir Kerry St Johnston, Director, P&O Steam Navigation Company.

“Education and training in IMO: a crucial tool for safer shipping and cleaner oceans” by C P Srivastava, Secretary-General, International Maritime Organization.

“Current trends in maritime communications” by A Haddrell, Technical Manager, Marconi Marine.

“Current trends in warship controls” by J Stark, Director of Corporate Development, YARD Ltd.

“Engineering in the Royal Navy - towards the automatic warship” by Vice Admiral Sir Hugh Thompson KBE, Chief Naval Engineer Officer.

“Marine and public safety” by Dr J Cowley CBE, Chairman, Britship (IOM) Ltd.

“Offshore engineering - exploration and development of production fields in the North Sea” by P Everett, Managing Director (retired), Shell UK Exploration and Production.

“Deepwater oil and gas production - opportunities, challenges and commitment” by A G Ace, Chief Operating Executive (UK), BP Exploration.

“The construction of surface warships and high technology merchant ships” by Dr R Vaughan, Chairman and Chief Executive, Swan Hunter Shipbuilders Ltd.

**Centenary Year Conference - Past Present and Future Engineering in the Royal Navy**

**6-8 September 1989 - 26 papers.**

“Factors affecting the selection of future propulsion systems for the Royal Navy” by Cdr S P C Westwood RN, J Spencer and R R Simpson, MOD (PE) and YARD Ltd.

“Marine gas turbine developments” by D A Owen, Rolls Royce plc.

“Past experience and future trends in defence application of diesel Engines” by J N Ramsden and M F Clover, Paxman Diesels Ltd.

“Reversible converter-coupling” by H A Clements, SSS Gears Ltd.

“Epicyle gearing” by D E Yates, NEI Allen Ltd - Allen Gears.

“Naval thrust bearings” by J E L Simmons and N Henderson, Michell Bearings.

“New developments in sewage treatment for naval vessels” by Lt J M Newell RN and J Keary, MOD (PE) and Caird and Rayner.

“High pressure air compressors - a reliable force” by W N Robinson, CompAir Reavell.

“Thermoelectric cooling - naval applications” by C S Brooks, Advance Programmes Group, Vickers Plc.

“Ship design post Falklands” by I M Peacock and G W Parker, MOD (PE) and Yarrow Shipbuilders Ltd.

“Materials for warship applications - past, present and future” by H A Holl, Admiralty Research Establishment.

“The roll stabilisation of warships” by Cdr J Stafford, Naval Engineering Consultant, Brown Brothers.

“The production of propellers for the Royal Navy” by A Tuffrey, Stone Manganese Marine Ltd.

“Fuel cell applications for surface ships” by V W Adams, MOD (PE).

“Royal fleet auxiliary - a changing business” by R D Mulligan, MOD (PE).

“Condition based maintenance in the Royal Navy” by Cdr W N Watson RN.

“The importance of availability, reliability and maintainability in engineering for the Royal Navy” by Cdr A T White RN and Lt Cdr G Carr RN.

“Warship platform automation” by S E Tarrant, Vosper Thornycroft (UK) Ltd.

“The impact of information technology on ship surveillance and operations” by E J Harding, A W Reed, D A Lamb and C Wigham, BMT Cortec Ltd.

“Command system engineering - past, present and future” by G McIntyre, Dowty Maritime Systems Ltd.

“Weapons and sensors” by Cdr N J F Raby RN.

“Procurement strategy” by Cdr I F Jenkins RN.

“The impact of market forces on ship upkeep strategy” by R N Shield and D S Moon, Devenport Management Ltd.

“Achievement of manpower reductions at sea” by Lt Cdr P L Hatton RN and R G Blakey, MOD (PE).

“Technician training in the Royal Navy, past, present and future” by Cdr R F Johns RN and Lt A L Pitkeathly RN, HMS Sultan.

“Training of marine engineering officers for the Royal Navy” by Cdr R F D Colby RN, RNEC Manadon.

# MEMBERSHIP STATISTICS

## Analysis of membership classes as at 30 September 1989

	United Kingdom	Overseas	Address Wanted	Total	Change
Fellows	3114	1766	196	5076	-81
Members	3445	1750	142	5337	-12
Associate Members	1745	1269	73	3087	-50
Graduate Members	49	25	2	76	+22
Associates	351	278	23	652	-26
Consociates	1106	536	93	1735	+315
Affiliates	-	145	-	145	+9
Total	9810	5769	529	16108	+177

Grand Total 16,108  
Excluding Past Presidents 2 Honorary Fellows 2 Companions 2

## Branch membership as at 30 September 1989

United Kingdom			Associate	Graduate			Total	Change
	Fellows	Members	Members	Members	Associates	Consociates		
Aberdeen Maritime Joint	84	123	57	1	7	52	324	+8
Devon & Cornwall Joint	123	170	83	6	29	36	448	+19
Kingston-upon-Hull & Humber	104	114	94	1	14	47	374	+28
North East Coast	294	318	199	6	26	193	1036	+109
Northern Ireland Joint	59	37	47	-	8	8	159	-9
North Midlands	60	90	55	-	11	25	241	+12
North West England	345	374	220	4	54	159	1156	+42
Scottish	332	400	246	7	40	132	1157	+10
South East England	393	385	145	1	34	107	1065	-4
Southern Joint	349	376	192	4	46	94	1061	+46
South Wales	105	100	60	1	13	14	293	-2
Western Joint	119	135	52	1	16	28	352	+10
West Midlands	101	115	56	2	9	38	321	0

Overseas			Associate	Graduate			Total	Change
	Fellows	Members	Members	Members	Associates	Consociates		
Eire-Cork	16	14	25	-	5	6	66	+4
Eire-Dublin	24	31	26	1	3	7	92	+9
Australia-Canberra	12	14	2	1	1	3	33	-1
Australia-Newcastle	29	22	40	-	11	11	113	+4
Australia-Queensland	63	60	39	-	26	23	211	+4
Australia-Sydney	150	102	61	-	25	39	377	-4
Australia-South	22	21	15	-	6	6	70	+1
Australia-Victoria/Tasmania	101	66	39	1	14	35	257	+10
Australia-Western	55	45	38	-	17	16	171	+8
New Zealand-Auckland	69	63	32	1	10	7	182	-2
New Zealand-South Island	30	6	16	-	6	5	63	-1
New Zealand-Wellington	43	25	20	2	2	5	97	+1
Greek Joint	51	56	29	4	2	20	162	+13
Hong Kong Joint	71	226	123	10	31	95	556	+33
Malaysia Joint	2	47	50	1	7	14	121	0
Malta Joint	13	10	9	-	-	2	34	-4
Netherlands	47	29	21	-	3	8	109	-1
Nigeria	5	13	19	-	3	5	45	-3
Pakistan	29	23	52	-	5	1	110	-8
Singapore	53	143	96	1	21	27	341	-4
Sri Lanka	8	24	80	-	13	6	131	+11
United Arab Emirates	17	14	19	-	3	1	54	+2
USA-Eastern States	90	50	33	-	2	21	197	+5

## Areas (excluding branches) with 25 or more members as at 30 September 1989

Area	Fellows	Members	Associate Members	Graduate Members	Associates	Consociates	Total	Change
Africa Central & West	11	16	30	-	8	4	69	-3
Canada	218	124	30	-	6	22	400	+1
Channel Islands	9	7	10	-	1	3	30	+2
Far East	38	28	35	-	5	7	113	-2
France	11	15	5	1	2	2	36	+2
India	122	207	121	1	9	6	465	-49
Isle of Man	18	9	6	-	5	2	40	0
Italy	19	15	1	-	-	1	36	-6
Near & Middle East	50	40	32	-	10	16	148	-11
Norway	9	24	3	-	-	1	37	-1
Portugal	20	3	11	-	1	2	37	-6
South Africa	70	36	8	-	5	3	122	-2
South America	17	9	12	-	1	3	42	-6
Spain	16	12	13	-	-	3	44	+2
USA (excluding Eastern States)	44	35	12	-	3	9	103	+15
W.Germany	19	16	10	1	-	3	49	+8
West Indies	13	6	6	-	1	3	29	+1

## Institute membership 1980 to 1989

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Corporate members	12,702	12,352	11,966	11,725	11,496	11,235	10,760	10,472	10,506	10,413
Non Corporate members	5,562	5,497	5,362	5,284	5,325	5,311	5,220	5,294	5,425	5,695
Total	18,264	17,849	17,328	17,009	16,822	16,546	15,980	15,766	15,931	16,108

Excluding Past Presidents 2 Honorary Fellows 2 Companions 2.

\*includes Overseas Affiliates

## Members who Qualified for Certificates of Forty-five Years Service

Name	Area	Name	Area
H N G Allen(Fellow)	Western Jt.	G G Hansard(Member)	North Midlands
R B Allen(Fellow)	South East England	G C Harvey(Consociate)	West Midlands
J S Barron(Fellow)	North West England	N W J Henney(Fellow)	Scottish
K J Bateson(Fellow)	Kingston-upon-Hull & Humberside	J B Hughes(Fellow)	North West England
L P Bek(Fellow)	Address Wanted	J B Holroyde(Fellow)	Address Wanted
H T Boerke(Fellow)	Address Wanted	H A Humphreys(Fellow)	South East England
W C Boyd(Fellow)	Kingston-upon-Hull & Humberside	J C Hutton(Fellow)	Scottish
W Brunton(Fellow)	Western Jt.	T Ismay(Fellow)	North East Coast
A N S Burnett(Fellow)	London Home Counties	G L Jones(Fellow)	Southern Jt.
J M Carson(Member)	London Home Counties	D A Keable(Fellow)	Southern Jt.
J A Clay(Fellow)	Devon & Cornwall	A W J Lissenden(Fellow)	South East England
D J Collins(Fellow)	Southern Jt.	F A Macfarlane(Fellow)	France
J Craig(Fellow)	Aberdeen Maritime	T W Major(Fellow)	South Wales
D A Crowley(Fellow)	Mallorca, Spain	W O McLachlan(Fellow)	North East Coast
E H Duncan(Member)	London Home Counties	A J Monk(Fellow)	Southern Jt.
O W Dumbleton(Fellow)	North East Coast	T Needham(Fellow)	Address Wanted
J D East(Fellow)	Southern Jt.	R H New(Member)	Auckland, New Zealand
A W Easton(Fellow)	Sydney, Australia	T H Noel(Fellow)	South Africa
C H Elliott-Brown(Fellow)	Hong Kong Jt.	A J Robertson(Fellow)	South East England
A A Emery(Fellow)	North East Coast	D G Rorison(Fellow)	Address Wanted
W F J D Ewart(Fellow)	Scottish	D G Satow(Fellow)	Western Jt.
G D Fairley(Member)	Devon & Cornwall	A R Shaw(Fellow)	Kingston-upon-Hull & Humberside
P J Fallon(Fellow)	Southern Jt.	K J Shone(Fellow)	London Home Counties
N W Fleming(Fellow)	South East England	J Smith(Member)	London Home Counties
P Fondeur(Fellow)	Address Wanted	J L Snowdon(Fellow)	North West England
P R Gill(Fellow)	Scottish	A H Stobbs(Fellow)	Scottish
R R Ginn(Fellow)	Southern Jt.	R R Triggs(Fellow)	Kingston-upon-Hull & Humberside
D E Guard(Fellow)	Southern Jt.	G D Van Someren(Member)	Western Jt.
C S Hall(Fellow)	Scottish	A S D Walker(Fellow)	London Home Counties
G S Hall(Member)	Southern Jt.		

# SUBSCRIPTION RATES

## INSTITUTE SUBSCRIPTION RATES FOR 1989/90

Class	Annual Subscriptions	Annual Subscriptions *Developing Countries
Fellows	£49.00	£37.00
Members	£44.00	£32.00
Associate Members	-	-
age 30 years and over	£42.00	£31.00
age 25-29 years	£24.00	£20.00
age 23-24 years	£13.00	£13.00
Graduate Members/Associates/Consociates	-	-
age 30 years and over	£40.00	£31.00
age 25-29 years	£24.00	£20.00
age 22-24 years	£13.00	£13.00
age under 22 years	£ 7.00	£ 7.00
Retired Members	£25.00	£25.00
with 20 years membership	£ 7.00	£ 7.00
with 20 years membership but without MER	£ 4.00	£ 4.00
Affiliates	£18.19	

\*Developing Countries - Bangladesh, Burma, Egypt, Gambia, Ghana, India, Indonesia, Kenya, Lebanon, Malawi, Nigeria, Pakistan, Peoples Republic of China, Philippines, Republic of China, Sierra Leone, Sri Lanka, U.A.R., Yemen, Zambia. Members residing in India and who are currently members of both The Institute of Marine Engineers and The Institute of Marine Engineers (India) are subject to a subscription rate of £3.00.

Members who have retired from remunerative employment are eligible to apply for the reduced subscription rate of £25.00 p.a. Those members who have similarly retired and who have been on the Membership Roll for more than 20 years are entitled to a reduced rate of £7.00 p.a. or £4.00 p.a. Those

paying the higher rate are entitled to receive the full membership services available from the Institute free of charge.

Any member suffering financial hardship may apply to the Membership Committee to be considered for a reduction in the annual subscription. Members making such an application are assured that it will be treated with complete confidentiality. Students studying on full-time courses leading to an honours degree or similar qualification accredited with the Institute are also eligible to apply for a reduced subscription rate.

All members elected to the membership roll with suitable qualifications and wishing to register with the Engineering Council are required to

pay an entrance fee as listed; this payment, however, includes the annual registration for the first year. Retired members who are registered with the Engineering Council must pay 50% of the annual registration fee.

Those members belonging to two or more professional engineering institutions and registered with the Engineering Council need only pay one annual registration fee through one institution of their choice. Such members should ensure that the institution through which they wish to make payment is made aware of this, and that the other institutions are notified of the member's choice. Failure to ensure that this fee is paid can result in a member being removed from the Engineering Council Register.

## ENGINEERING COUNCIL FEES 1989/90

Class	Registration	Entrance	Annual Registration
	Category	Fee	Fee
Fellows	C.Eng.	£19.00	£9.10
Members	C.Eng.	£19.00	£9.10
Associate Members	I.Eng.(T.Eng.)	£15.50	£7.50
Associates	Eng.Tech.	£ 6.50	£3.40

# REPORTS OF THE BRANCHES 1989

## **Aberdeen Maritime Joint**

During the year a total of four technical meetings were held at the Treetops Hotel, Aberdeen. The chosen subjects were selected to cover as wide a range of marine and offshore related topics as possible. The meetings were well attended and were as follows:

3 October 1988

"Gold from the deep", a video presentation by Comex of the recovery of 98% of gold from the second world war battleship HMS "Edinburgh" in the Barents Sea.

5 December 1988

"Raising of an offshore platform" by Mr Smith of Phillips Petroleum. This interesting paper dealt with the simultaneous raising of six platforms of the Ekofisk complex a height of some six metres, due to soil subsidence.

6 February 1989

"Forth explorer" by Capt. Middleton. A very topical subject following the then recent grounding of the *Exxon Valdez* and subsequent serious oil pollution, the *Forth Explorer* being a specialised oil recovery vessel and Captain Middleton an international oil recovery consultant.

3 April 1989

"Safety of ro-ro passenger ferries" by Mr Spouge of Technica. This interesting paper dealt with the risk analysis factors in international ferry operation.

A now traditional Burns Supper was held in the Westburn Park Lounge in January 1989 attended by over one hundred members, wives and friends. The branch was most appreciative in the attendance of the President of the Institute, Mr A F Harrold and his wife to this function. The evening was a great success. The Chairman of the branch was pleased to present to Mr Harrold during the evening a cheque toward the Institute's Lifeboat Appeal.

The Annual Dinner-Dance was held in the Treetops Hotel, Aberdeen in September 1989, with over two hundred and eight members and guests attending. A marine engineers Centenary cake was beautifully decorated and set out in the main reception area for all to see and admire. This year in view of the Centenary, an enlarged top table guest list included Prof Thompson (IMarE), Mr Sloggett (IMarE), Viscount Caldecote (RINA), Mr Leigh (IESS), Mr Cooper (Scottish branch), Mr Barber (Aberdeen Mechanical Society), Mr Robertson - Lord Provost of Aberdeen and all five past Chairmen of the branch. The evening was a great success, with an ever increasing attendance year by year.

## **Devon and Cornwall Joint**

The branch enjoyed a busy year and received a good response to its lecture programme in which two of the papers were given by local presenters. Before the Annual General Meeting there had been a distinct lack of technical visits or social programme,

but by co-opting the services of a newly arrived member this changed. He has arranged an intriguing mixture of social events and technical visits for branch members to enjoy, though most are scheduled for the period following that covered in this report.

The branch was honoured by a visit from the President, Mr F. Harrold and the Secretary, Mr J. E. Sloggett, early in January 1989. The opportunity was taken to ask Mr Harrold to present a 45 year certificate to Mr A Gaunt during a most enjoyable evening. This was the first of two such certificates awarded to branch members this year, though the second to Mr J Clay, was at a much later date.

Three branch prizes were awarded to students this year, one each to RNEC Manadon, Polytechnic South West, and the College of Further Education, all in Plymouth. It is to be hoped that more students will be eligible next year.

The Annual General Meeting was again well attended, albeit with slightly fewer members than last year, and was memorable in that two student members were elected to the joint branch Committee, almost certainly as a result of the President's visit to the joint branch the previous month when he spent some time in conversation with them. This was an encouraging sign for the future and both have already made contributions to the arranging of the forthcoming programme.



*The Institute has members in 36 branches and 81 countries*

*Officers representing virtually all UK and overseas branches gather for the Centenary celebrations.*



## Lecture programme

11 October 1988

“SWATH - small waterplane area twin hull vessels” by J Mitchell.

8 November 1988

(Joint meeting with the Institution of Civil Engineers) “Marine developments” by P Lacey of Ove Arup & Partners

13 December 1988

“Review of the various methods for improving the underwater efficiency of a ship” by Dr E Glover of Newcastle University and M Osborne of Shell International Marine.

14 March 1989

“Dual purpose manning” by J Forshaw of Shipping Operations, Institute of Marine Studies, Polytechnic South West.

11 April 1989

“Composite materials for the marine environment” by Dr J Summerscales, Faculty of Mechanical Engineering, Polytechnic South West.

7 September 1989

Technical visit to the marine engineering exhibition and training facilities at the Royal Naval Engineering College, Manadon, Plymouth.

### **Kingston upon Hull and Humber Area**

The year has seen a steady support for all the activities arranged by the branch. The technical papers presented were well attended by members and visitors. At the presentation “Salvage and fire-fighting based on the salvage of the *Herald of Free Enterprise*” by Hans Walenkamp there was standing room only and the debate that followed was just as interesting as the presentation.

A party of members visited British Steel at Scunthorpe, where a guided tour and video presentation followed by a buffet were enjoyed by all. Also a coach party of members, wives and children, enjoyed a visit to Grenada TV studios at Manchester.

The 38th Annual Dinner was held at the Guildhall, Hull in November 1988, the main speaker being Mr Stuart Randall, M.P. The Annual Dinner Dance was held during March 1989 at the Willerby Manor Hotel, where the tombola managed to raise another record amount. The profit from the tombola was equally divided between the Guild of Benevolence, Sailors’ Childrens Society and the Institute’s Lifeboat Appeal.

The Invitation Golf Tournamout held during June 1989 raised in excess of £3,500 for the Lifeboat Appeal. The Hull Regatta during August 1989, was attended by the branch, a stand inside the marquee being manned by volunteers from the Committee and a steady stream of enquiries about

membership or the aims of the Institute were received.

Technical papers presented by the branch were:-

7 December 1988

“Undersea gas pipe inspection” by R Powell of B P Petroleum Development

26 January 1988

“Salvage and fire-fighting based on the salvage of the *Herald of Free Enterprise*” by H Walenkamp of Smit International.

2 March 1988

“Stand by ships in offshore search and rescue” by J Daniel of Hollobone, Hibbert and Associates.

28 September 1989

“Quality assurance and certification offshore” by P Neal of British Gas plc.

During the course of the year the Chairman laid a wreath at Hull Cenotaph in remembrance of the men of the Merchant Navy who died during the World Wars.

### **North East Coast**

The following technical meetings were held

6 October 1988 (Joint meeting)

“Marine machinery failures” by R F Munro

10 October 1988

ECRO Annual Prestige Lecture “Channel tunnel update” by E H Norrie

27 October 1988 (Joint meeting)

“Ship of the future” by K H Paetow

21 November 1988 (Joint meeting)

Charles Parsons Memorial Lecture “Energy and the environment” by Prof I Fells

24 November 1988

“The salvage of *Herald of Free Enterprise*” by G van Wijk and H J G Walenkamp

26 November 1988

Historical symposium “Marine engineering and the North East Coast”

15 December 1988

“Sequential turbocharging of the MTU 1163 engine” by P Herring

26 January 1989

“Development of merchant ship propulsion machinery over the past 25 years” by A F Harrold

23 February 1989

“The evaluation of lubricants for marine propulsion systems” by R F Thomas

16 March 1989

“Implementation of reliability, methodology to ships machinery” by Dr F Ørbeck and P Yanoutsos

27 April 1989

“Advances in condition based monitoring” by S Drew

The Annual Dinner and Dance was held in the Civic Centre, Newcastle upon Tyne in March 1989 when 346 members and guests attended. The Toast to The Institute of Marine Engineers was proposed by Mr T Harrison, President North East Coast Institution of Engineers and Shipbuilders, and the response was given by Professor R V Thompson, President The Institute of Marine Engineers. The branch Chairman proposed a toast to the guests. The Lord Mayor of Newcastle, Councillor D Webster, replied on behalf of the guests. The branch was also fortunate to have the Lord Provost of Glasgow, Mrs S Baird, and her husband attend this function. A raffle conducted on behalf of the Guild of Benevolence raised £1,000 for the fund.

### **Northern Ireland Joint**

The session commenced with the Annual Dinner held at the Culloden Hotel in October 1988 when the branch was honoured by the presence of Prof. R. Thompson who represented the Institute and Dr R A Goodman who represented RINA. The guest of honour was Mr Dick James of the Northern Ireland Fish Producers Organisation who in his speech discussed the complexity of modern fishing vessels and admonished the gathering for not including fish on the menu. There was an attendance of 136 members and friends.

The first lecture of the session was held on 22 November 1988 at the usual venue, the University of Ulster at Jordanstown, the subject being “Stainless steels as replacement materials for copper alloys in sea water handling systems” by Dr R Malpas who outlined the various attributes of copper alloys and stainless steels for use in sea water handling systems by comparison. A lively discussion followed and many points of interest were raised and expertly dealt with.

On 24 January 1989 a lecture entitled “Anatomy of a marine disaster” was given at the University by Dr E C B Corlett OBE of Burness Corlett and Partners (IOM) Limited, Naval Architects and Consulting Engineers. This was an extremely interesting lecture concerning the break up of the MV *Kurdistan* off the Canadian coast which was expertly outlined and vividly portrayed with the help of slides. A discussion afterwards showed an intense interest in this subject and Dr Corlett expertly answered a number of questions relating to the disaster.

The Annual Dinner Dance was held in the Culloden Hotel in February 1989 when the branch had the pleasure of the company of the President and Mrs Harrold as well as the Secretary, Mr J E Sloggett. A special tombola for the Centenary Lifeboat Appeal raised £700. There was an attendance of approximately 200 members and friends.



The Annual General Meeting was held in Engineering House, University Road, Belfast (ECRO Headquarters, N. Ireland Region) on 14 February 1989. The lecture on 4 April 1989 was entitled "Conversion of a ro-ro container vessel to an aviation training ship" by Dr N A J Wells and K M Walsh. This lecture was excellently presented with the aid of slides and a large scale model of *Argus* and covered the project from the purchase of "*Contender Bezant*" right through conversion of the ship until delivery in its new form as the aviation training ship *Argus* to the Royal Navy. During the discussion afterwards a large number of questions were answered very ably by the joint lecturers.

On 16 May 1989 members and friends visited the new Kilroot Power Station, recently converted to burn coal or oil instead of oil only. The visit was of great interest to everybody especially those amongst the visitors who had spent some time on steamships.

On 8 June 1989 as part of the local Centenary celebrations, a party of members and guests went on an evening cruise on board MB *Balmoral* around Belfast Lough. This was a memorable occasion and was enjoyed by all who took part. The main Centenary event in Northern Ireland took place on 21 June 1989 in the form of a lecture entitled "RMS *Titanic* - a voyage in time" by G G Connor OBE. The lecture was followed by a buffet dance and was attended by the Lord Mayor of Belfast, Professor Thompson and Mr Sloggett.

Mr Connor's lecture was most interesting in the respect that it diverted attention more to the human tragedy of this marine catastrophe and away from the technical aspects. Some very graphic slides of icebergs and ice fields gave the audience some idea of the enormity of the iceberg which caused the sinking of the *Titanic*.

The final lecture of the year was held on 26 September 1989 at the usual venue, the University of Ulster, and was given by K Harvey of the Salvage Association. The lecture was entitled "Fires in the marine environment". Mr Harvey, as a practicing surveyor, dealt with the subject of fires in merchant vessels and pointed out some interesting aspects of records kept between 1959 and 1988. The question time afterwards was of a lively nature and Mr Harvey dealt with the questions in an expert manner.

### North Midlands

Following the branch AGM on 1 October 1988 at the Waggon & Horses, Langset, S. Yorks, lunch was served and later an impromptu discussion was held amongst members and their wives about the branch activities for the Centenary.

On 8 November 1988 there was a technical/social visit to Menwith Hill, Station, Harrogate where members, wives and friends were entertained by the staff and on the conclusion of the visit the branch Chairman presented an Institute plaque to commemorate the visit.

The Centenary lecture was held at the Executive Room, Rolls Royce Pavillion, Derby on 15 March 1989 where J Ferrie, Director Rolls Royce Marine and Repair Division gave a paper entitled "History and success of Rolls Royce in the marine propulsion field", which was amply illustrated. The Institute's President Prof. R V Thompson presented to Mr Ferrie a Centenary Plate commissioned by the branch to record the support that Messrs. Rolls Royce had given to the branch over the last 25 years. There followed a buffet at which members, wives and guests rounded off a very well attended and successful evening.

On 22 April 1989 the President, Professor R V Thompson and Mrs Thompson, and Institute's Secretary, Mr J E Sloggett were guests at the Centenary Year Dinner held at the Hallam Tower Hotel, Sheffield which was well supported.

During the Centenary week a party of members and their wives travelled to Mark Lane on 18 July 1989 where they were entertained to lunch and accompanied by Mr G Wilskin and Mr R Elders. Conference delegates visited the exhibition, followed by a guided tour of the facilities available to the membership.

During the year two ECRO Prestige Lectures were held in the branch area and these were supported by the members.

### North West England

Attendance at the technical lectures again showed an increase on the previous year and the branch Committee looks forward to meeting many more members and interested friends in the future. A total of six lectures were arranged as follows:

3 October 1988  
"The salvage of the *Herald of Free Enterprise*" by J A C van Rooy of Smit Tak.

7 November 1988  
"The geared marine future" by H. Schmitt of Renke Tacke.

24 November 1988  
"The torpedo, the devil's device" by M. Stradling of MOD Portland.

6 December 1988  
The new dimension in ship construction and the future fuels are really heavy" by S. Henguist of Wärtsila.

16 January 1989  
"The significance of balancing rotating and reciprocating machinery by B. H. Thomas & H. W. Harper, VCI Ltd.

6 February 1989  
"The submarine and its environment" by R. Mason of VSEL.

6 March 1989  
"Operation corporate and lessons learned in the Falklands" by Lt Cdr. R. J. Morgan, RN., HMS *Phoenix*.

A evening visit was also arranged to Wirral C.A.E. Services Ltd.

The lecture on 24 November 1988 was organised in conjunction with the Merseyside & North Wales Branch of the IMechE and was very popular, resulting in standing room only at the Ellesmere Port Boat Museum Lecture Theatre.

The branch continued to be well represented on ERCO 5 & 7 area committees and the Professional Engineers of South Cumbria also continued to hold meetings in the Northern part of the branch area. The branch throughout the year carried out a number of Professional Review interviews.

The Committee was pleased with the support given to the Fun Run of Committee member Maurice Jones which raised £700 towards the Lifeboat and the evening trip on the *Royal Iris* was also well supported when over £1,000 was raised. The weather for the cruise was excellent.

### Scottish

During the year a total of seven branch meetings were held, six at the University of Strathclyde - one of which was a joint meeting with the Greenock Association of Engineers and Shipbuilders - and the seventh a joint meeting with and at the Institution of Engineers and Shipbuilders in Scotland.

The following papers were presented:-

4 October 1988  
"The ship of the future" by J F Birch, Lloyd's & Jones Engineers Ltd., Bootle.

1 November 1988  
"Electric propulsion" by B Sharman, Lloyd's Register, London.

15 November 1988  
"Fifty man frigate" by K Figg, Yard Ltd.

6 December 1988  
"Reliability engineering" by F Ørbeck, Technical Manager, Marine Design Consultants Ltd., Sunderland.

10 January 1989  
"Operational experience with the Caterpillar 3600 series engine" by C Legro, Caterpillar Diesels, S.A.

7 February 1989  
"Innovative engineering over the century" by T Craig, Technical Director, McTaggart Scott & Co. Ltd., Midlothian.

7 March 1989  
"A century of engineering" by I Burrows, Technical Director, Harrison's (Clyde) Ltd.

The Annual Dinner Dance was held at the Albany Hotel, Glasgow in November 1988 with 290 members and guests attending. A most enjoyable evening was had by all and it was considered a huge success. The Guild of Benevolence benefited from the tombola through the generosity of the guests.

The 35th Annual Dinner was held at the Hospitality Inn, Glasgow in February 1989 and was attended by 317 members and their guests. The main speaker and guest of honour was Sir Frederic Bolton MC, President of the British Maritime League and Past President of the Institute. Replying on behalf of the guests was Mr G Brown an ex British Lion.

The branch award winner for 1988/89 was R Watson, a student on the HND Course in Marine Engineering at Glasgow College of Nautical Studies, for a project entitled "Marine Refrigeration Systems". The award was presented to Mr Watson by the branch Chairman, and the Denholm Bronze Medal by Mr J M Brown, Denholm's Technical Director.

The Spring 1989 Golf outing was held over Cathcart Castle golf course and as always the competition for the prizes was keen. The "Anchor Trophy" was won by J Mathers and the "Shell Salver" Mr K Brown. The Autumn 1989 golf outing was held at Cladwell golf club. The "Beattie Cup" was won by B Chalmers and the "Hamworthy Rose Bowl" by K Brown. An enjoyable day was had by all competitors.

On 12 May 1989 the Scottish branch celebrated the IMarE Centenary with a cruise on the paddle steamer *Waverley* the world's last sea-going paddle steamer still propelled by her original 1700 IHP triple expansion diagonal reciprocating steam engine.

From Glasgow the *Waverley* called first at Kvaerner Govan Shipbuilders where after a film about the recently delivered *Norsea* ferry she went across river to the naval shipyard Yarrow for passengers to have the opportunity of a walk through the modern assembly shop.

From Yarrow the *Waverley* continued down the Clyde to Helensburgh where a party from the RNLI joined. A sail past the Clyde Submarine Base at Faslane with a running commentary by a RN Engineer Commander concluded the outbound leg of the journey. On the return journey as the weather improved passengers either strolled the deck or joined in a sing-song in the "Jenny Deans" lounge. A good time was had by all. Headquarters was represented by Professor R. Thompson, G Geddes and J McNaught, together with their ladies.

### South East England

The branch arranged eight senior and one junior technical meetings. Once again, the shortage of junior meetings was due to a

lack of suitable opportunity, but the Education Panel is hopeful that this situation will soon change.

The senior meetings included joint meetings with the Institute of Measurement and Control, Institution of Mechanical Engineers, the Colchester Engineering Society and the Welding Institute. Four were held at Gravesend and one each at Dover, Canterbury, Brentwood, Dartford and Colchester. The Annual General Meeting was followed by a wine tasting by The Wine Mine Club.

There were two well attended social occasions during the year, the Annual Dinner and Dance in October 1988 and the Annual Dinner in May 1989. The former was attended by 282 members and guests and the latter saw 211 seated for a most enjoyable evening. At the latter occasion a one gallon bottle of Scotch Whisky realised in excess of £800 when it was raffled in aid of the Lifeboat Appeal.

### Southern Joint

During the year the following papers were read:-

4 October 1988

"High speed sailing" by M J Barnsley

19 October 1988

"Design and operation of remotely operated submersible vehicles" by D W Hartley

2 November 1988

"Developments in piston engines" by R Herrmann

16 November 1988

"Cost effective lubrication of marine diesel engines" by J Hengeveld

1 December 1988

"Hovercraft for hydrographic surveying" by B J Russell

19 January 1989

"Stopping and reversing high power ships" by H A Clements

1 February 1989

"Improving propulsive efficiency" by Dr E J Glover

15 February 1989

"Computer applications to ship operation" by N M Pope

28 February 1989

"Modern GRP minehunter construction" by A L Dorey and B E Wrankmore

16 March 1989

"The design of large passenger cruise ships" by S M Payne

All the papers were well received.

The Institute's Centenary was celebrated by holding three social functions. In April 1989 the Centenary Dinner was held in Portsmouth and 214 members, wives and guests attended. The branch was delighted to have the President as principal guest and

grateful that, in what was obviously a busy year, the Deputy Presidents, the Secretary and Treasurer, all with their ladies, found time to attend this Dinner.

In June 1989, 100 members and guests, boarded the harbour cruise vessel *Island Scene* for a technical visit to view the facilities of Southampton Docks. Finally, in September 1989 the Annual Dinner was held, this year for the first time, in Southampton. Over 100 members and guests attended and again the branch was delighted to have a number of guests from the parent Institutions

### South Wales

The branch has had a very good year with its activities up to the usual high standard. A full lecture programme was organised and well attended by both members and guests. This commenced with a lecture on "Developments in modern medium speed diesel engines" by A J West of M.A.N. B & W. followed by three lectures of a broader interest to which members of other institutions were invited. These were "The dinorwig pumped storage scheme", "The investigation of marine casualties" by the then President A F Harrold and "The salvaging of the *Herald of Free Enterprise*". The branch also joined with the South Wales branches of the other engineering societies to sponsor the Sir Hugh Ferguson Jones memorial lecture, which concerned "Cardiff Bay development" given by Geoffrey Inkin.

The Annual Dinner proved to be very popular, the speeches were good and humorous, and a good time was had by all.

To celebrate the Centenary, and to support the project of the Mersey Class fast carriage lifeboat, various functions were held which proved to be popular. The Royal Navy Presentation team gave their presentation at the newly opened South Glamorgan County Hall, Car Book Sales and Car Treasure Hunts were organised, together with a Duck Race, where the first duck past the finish was backed by the Institute's Secretary, Jolyon Sloggett on behalf of his daughter. An exhibition entitled "South Wales and the marine engineer" was mounted at the Welsh and Industrial Maritime Museum, and the programme ended with a "Gala Evening of Music" at St. Davids Hall, Cardiff.

### Western Joint

Technical meetings during the year were held as follows:-

3 October 88

"Ship safety equipment and safety surveys" by C H A Marshall and J V Rugg, Lloyds Register Shipping.

7 October 88

"Rudder roll stabilisation" by Cdr B Sutton, Royal Naval Engineering College, Manadon.

21 November 88

"The Jesus boat from Lake Galilee - its excavation and construction" by S Wachsmann, Israel Department of Antiquities.

5 December 88

"Auxiliary sail propulsion" by J Walker, Walker Wingsail Systems Ltd.

9 January 89

"The design of lifeboats for the Royal National Lifeboat Institution" by D Hudson, RNLI.

6 February 89

"The investigation of marine casualties" by A F Harrold, President IMarE.

6 March 89

"The salvage of the ferry MV *Herald of Free Enterprise* a video presentation by the South Wales branch of IMarE.

3 April 89

"Developments in modern airships" by I Reid, Airship Industries Ltd.

The technical visit was on 21 June 1989 to the RNLI Headquarters at Poole.

The main social event was the celebration to mark the Centenary of the Institute, held on the SS Great Britain in Bristol docks on 12 May 1989. The principal guests were HRH The Duke of Kent and Prof R V Thompson, President of the IMarE. This successful occasion raised about £4200 for the IMarE Centenary Lifeboat Appeal.

### **West Midlands.**

The year was the most memorial in the history of the West Midlands branch as both the City of Birmingham and the Institute celebrated their Centenary, hence an extensive and varied programme of events.

The meeting in October 1988, which should have covered the subject the "Seven barrage" by a Mr Pope, was regretfully cancelled by the speaker. However, the Chairman rose to the occasion and gave an excellent talk on the "Titanic", which enthralled the audience with a realism which is often lacking in historical presentations. A superb presentation with which to commence the year.

The Annual Dinner was a tremendous success with over two hundred people sitting down to an excellent meal and superb after dinner speeches given by the branch Chairman and the President A F Harrold. The principal guest being the Chief Engineer of the Royal Navy, Vice Admiral Sir Hugh Thompson, while the principal after dinner speech was given by a Mr Thomas, a professional mole catcher. Mr Thomas's speech certainly gave food for thought and had numerous amusing stories about these furry little animals who have such a nasty habit of destroying one's beautiful lawn.

The Centenary year started on 25 January 1989 with a most excellent and frightening paper entitled "Soviet submarines propulsion systems" by Captain J E Moore RN (Ret'd) who was an excellent speaker. The quality of his talk was reflected in the numerous technical and searching questions posed by the extremely large audience present.

The Annual General Meeting was held on 22 February 1989, followed by a lecture given by J Birch entitled "The ship of the future" which indicated that the British shipbuilding industry was lacking in its approach to market developments.

Two very excellent works visits took place in the Spring 1989 with a visit to the Rolls Royce Heritage Museum and the Ironbridge Gorge Museum. Both visits were extremely nostalgic, well attended and were of considerable interest to the members', wives and families.

As both the Institute and the City of Birmingham were celebrating their Centenaries, the West Midlands branch took the decision to join with the City and host a gathering in Birmingham's City Hall to which an additional thirteen Lord Mayors/Mayors and their escorts had been invited, together with senior representatives of West Midlands industry involved in supplying equipment to the navies of the world.

During the festivities the branch Chairman presented to the President Prof R V Thompson a cheque to the value of £700, which had been raised by the members of the branch. Over two hundred people attended this function, which provided the opportunity to forge again the links with the City of Birmingham, where the first wrought iron plates for ship use had been made and where 'Watt', 'Boulton' and 'Murdoch' had contributed so much to the developments of the steam engine. These links were welded with the giving of a superb Royal Brierly hand cut crystal bowl from the City of Birmingham and the Crest of the Institute from the President Prof Thompson.

As befits the Centenary the year closed with an excellent presentation from the RNLI, who gave an interesting talk on the developments of the RNLI and the equipment used in the service with some fascinating photographs of actual lifesaving at work.

## **Australia/New Zealand Division**

### **Canberra**

Technical meetings held and attended by members and guests were:-

15 March 1989

"Protection, preservation and maintenance engineering" by B Watson.

10 May 1989

"Review of lubricating oil cleaning equipment and system design" by P Sheppard.

25 May 1989

"M-Frigate; the ANZAC ship proposed by AWS" by S G Nooteboom (Joint meeting with RINA).

24 August 1989

"Non asbestos wearing and bearing materials" by P Cumberlidge.

The combined Annual Dinner with RINA, hosted by the branch, was again a success. Approximately 50 people attended the function held in July 1989 and the guest speaker, Dr M M Gore, Director of the National Science and Technology Centre was particularly entertaining.

The branch is again indebted to the Forestry Department of the ANU for their co-operation in allowing the use of their lecture theatre and facilities during the year.

### **Newcastle**

During the year the following technical meetings were held:-

15 November 1988

"Towage surveys and associated work" by K van Duffelen. Combined meeting with the Company of Master Mariners.

29 November 1988

Technical visit to Rankin Park Hospital project. Combined meeting with the Australasian Corrosion Association.

17 March 1989

"Retrofit application of turbo-chargers" by M Green.

14 April 1989

"The Australian maritime industry and its future" by J Price - Member of Parliament for Waratah. Branch Centenary Dinner/ Technical meeting.

21 April 1989

"The floating hotel project" by B Cleary.

16 June 1989

"Environmental control of shipboard wastes" by P Maslen.

1 September 1989

"Marine industry training - MIDC System" by A Wright.

15 September 1989

"The ANZAC frigate project" by Commander R Cass RNZN.

Prizes were awarded to two outstanding marine engineering students at the Australian Maritime College and to one student at the Newcastle Technical College

### **Queensland**

Eight technical evenings were organised throughout the year, including one special technical evening to commemorate the

Centenary of the Institute, one joint visit with another Institute to the Queensland Museum and a technical evening about Hovercrafts, culminating in a trip out of the Bay aboard the Hovercraft "Hever Mirngo".

The highlight of the year was the special technical evening dinner to celebrate the Centenary, with Sir James Killen as guest speaker. Approximately 80 members and guests attended.

The social events held were the Annual Dinner - November, 1988 and, a River Trip on Board the Paddle Wheeler "Rookaburra Queen" accompanied by the Tradies.

### **South Australia**

The eighteenth Annual General Meeting of the branch was held on 9 November 1988 at the Australian Mineral Foundation, followed by the first technical meeting of the Centenary year of the Institute. Mr G Broadbent, Control Engineer for the Pipeline Authority of South Australia addressed the meeting on the subject "Remote control of gas and liquids pipelines". Afterwards there was a conducted tour of the statutory authority's control room, which monitors the operation of the liquid pipeline to Port Bonython and the natural gas line to Adelaide from Moomba in the Cooper Basin. A most enlightening address bearing in mind South Australia's reliance on the Cooper Basin fields to meet its energy needs.

During the year, the following technical meetings held at the Australian Mineral Foundation and visits were arranged:-

1 February 1989

Technical meeting. "Repair of damage to the Darwin gas pipeline following an earthquake in 1987" by Messrs E L Metcalfe and D Holmes, Consultants to the petroleum industry on behalf of S Dieks of the N T Gas Pty. Limited.

15 March 1989

Plant visit. Actil Ltd., Textile Manufacturers, Woodville. A most interesting and enlightening tour of the largest processing and weaving mills in Australia, which recently underwent \$30 million modernisation programme.

18 March 1989

Work's visit. The works of Eglo Engineering Pty. Limited, Osborne, Port Adelaide, where an inspection was made of the recently complete HMAS "Paluma" first of the 35 metre catamaran survey motor launches and the remaining three under construction by this firm for the Royal Australia Navy.

7 June 1989

Technical meeting "Design, construction and testing of the shiplifter at Port Adelaide" (now part of the Australian Submarine

Corporation site and currently being upgraded from 2580 tonne to 5450 tonne capacity) by P Crayton, Project Engineer of Eglo Engineering Pty. Ltd., Port Adelaide.

5 July 1989

Technical meeting. "Trevitesting" (a method of testing and checking the set pressures of safety/relief valves on site) by L Backhouse, Managing Director of Furmanite, Sydney, NSW.

6 September 1989

Work's visit. Detroit Engine & Turbine Co Ltd., Gepps Cross, where an inspection was carried out of their facilities for the commissioning and load testing, also, the overhaul of the whole range of General Motors - Detroit Diesel Engines and associated coupled machinery.

Throughout the year at the forementioned technical meetings, the branch was privileged to have most informative and capable speakers, who presented papers on the current and future trends in the marine and industrial fields, with a good response from members and guests at question times clearly demonstrating the interest generated by the speakers. All meetings were reasonably well attended.

The Annual Dinner was held in November 1988 at the Lipson House Restaurant, Port Adelaide and was very well supported with a most enjoyable evening being had by all in attendance.

To commemorate the Institute's Centenary, a Dinner was held at the Tea Tree Gully Hotel in April 1989 and those who participated had a most enjoyable evening, when a total of \$200 was raised and donated to the trust fund to help retain the Brigantine "One And All" in South Australia for the sail training of the youth of this State.

A social get-together was held in June 1989 at the Buckingham Arms Hotel, Gilberton, and was reasonably well attended with some good fellowship and exchange of ideas amongst members and their wives.

### **Sydney**

Technical and social meetings were as follows:-

26 October 1988

"Underwater inspection in lieu of drydocking survey - UWILD", by J Lawler, Principal Surveyor, ABS and W M Gray, Diving Services.

2 November 1988

"Warranty & towage surveys" by K Van Dufferlen, Senior Ship Surveyor (Retired), Lloyds Register.

22 February 1989

"Modification to FFG hull and machinery", by R Toman, Superintending Naval Architect, L McKay, Engineer and B Ward, Senior Technical Officer, Garden Island Dockyard.

22 March 1989

"Naval architecture education in Australia", by Dr P Pal, Senior Lecturer, University of New South Wales.

26 April 1989

"Pumping & piping arrangements" by R Parry, Machinery Plan Surveyor, Lloyds Register.

3 May 1989

Training for ships of the future symposium.

9 May 1989

Visit to the Flying Scotsman.

24 May 1989

"Construction of an antarctic supply ship" by D Laverick, Managing Director, Carrington Slipways..

10 June 1989

Visit to Carrington Slipways.

28 June 1989

"Condition monitoring of gas turbines" by B Petersen, Senior Engineer, Gas Turbine Controls Group, Garden Island Dockyard.

26 July 1989

"The Australian submarine project" by Captain G Rose, Submarine Programme Manager, DoD.

30 August 1989

"The inshore minehunter - lessons learned" by B Robson ADNA, DoD. Combined meeting with RINA.

27 September 1989

"Design & installation of Australia's first gravity based platform" by Dr S French, Director, Wholohan Grill & Partners.

30 October 1988

Fishing Trip.

11 November 1988

Annual Dinner.

26 March 1989

Combined Golf Day with Newcastle Branch.

3 May 1989

Symposium Dinner.

30 June 1989

Ladies Night & Retirement Dinner for Tony Smith.

The following Prizes and Awards were presented:-

W W Marriner	W G Smith for best thesis when updating Diploma of Engineering (Marine) to Bachelor Applied Science (Marine Engineering) at the Australian Maritime College.
G I D Hutcheson	J Sellars for most improved student at the Sydney Technical College.

R A Fenwick G Morison for best Part A First Class Engineers Certificate at STC.

Sydney Branch J Willy for highest pass at STC for a First Class Engineers Certificate.

His Excellency, The Honourable W G Hayden, AC opened the symposium Training for Ships of the Future and the Minister of Transport and Communications, The Honourable R Willis, gave the opening address. The consensus of both authors and registrants was that the industry must change to survive and that training was necessary to implement changes.

The Australian International Marine Trade Fair was held in May 1989 at the Sydney Convention and Exhibition Centre, Darling Harbour, at which the branch was one of the exhibitors.

Direct sales of "Workhorses in Australian Waters" continued at a better than expected rate, but bookshop sales remained very slow. An attempt at direct response advertisement met with limited success.

### **Victoria/Tasmania**

The year was a very active one for the branch being its 37th year. The programme included twelve technical meetings, ten in Melbourne and two in Tasmania, with two social events. In accordance with established practice in all meetings were considered to be joint meetings with local members of RINA.

During 1988 a members' survey was conducted to ascertain the reason for low attendance in recent years and how the membership could be better served, if that was found to be necessary. The results were analysed and, although no clearly outstanding factors were found, a number of points emerged and are being pursued.

Branch relations with the Royal Australian Navy were further strengthened during the year with two presentations of the Institute Bicentennial Silver Medal at HMAS *Cerberus*, one in March 1989 and one in July 1989. The May technical meeting was a day visit to HMAS *Cerberus* by members and their ladies, which included an inspection of the marine engineering and seamanship schools with a barbecue lunch in the Wardroom.

The branch Centenary Dinner was held at the RACV in May 1989 attended by 150 members, their ladies and guests. The principal guest was Commodore J S Dickson, AM MBE RAN, Naval Officer Commanding Victoria Area, and other official guests were: Mr and Mrs J B Thomson, Hon. Vice President, Mr and Mrs D Thyer, Immediate Past Chairman V Div of IEAust, Capt & Mrs W Gent, Branch

Master Melbourne Branch Company of Master Mariners. Mr & Mrs J J Seaton, representing the Principal of the Australian Maritime College. Commodore Dickson gave an excellent address and proposed the Toast to the Institute. The annual social with the Company of Master Mariners was again held at the Danish Club in August 1989 and was well attended.

The following technical meetings were held:

18 October 1988

"Towage and warranty surveys" by K van Duffelen, until recently Senior Ship Surveyor, LR, Rotterdam.

18 November 1988

"Brown Boveri turbochargers and retrofit applications" by M Green, Brown Boveri, Sydney.

17 February 1989

"The desirability and conceptual design of Australian mobile airfield" by R D Toman, Garden Island Dockyard, Sydney.

15 March 1989

Technical visit to Dynamic Turbo Charger Services, Airport West.

21 April 1989

"Historic ships and lighthouses in Victoria" by Commodore D Smyth RAN.

16 May 1989

"The acquisition of LNG carriers for the NW shelf project" by A H Taylor, Hobart.

May 17 1989

Australian Maritime College, Launceston, students annual meeting, "Production of ferro alloys in Australia" by G Smith, AMC.

20 May 1989

Technical visit to HMAS *Cerberus*

16 June 1989 Films "Gateway to salvage", "NW shelf reports 5 and 6", "LNG carrier"

21 July 1989

"Manning where will it end" by J J Seaton, AMC.

18 August 1989

"Power without glory or being screwed for money" by Commander A Watkins, RAN.

15 September 1989

"The acquisition of LNG carriers for the NW shelf project", A H Taylor, BHP Transport.

### **Western Australia**

Six meetings were held, five at the Flying Angel Club, Fremantle and one at HMAS *Stirling*. The papers covered a variety of topics and the meetings were reasonably well attended.

Two prizes were given by the branch for excellence in marine engineering. The recipients were: R Spence, Fremantle College of TAFE and R Zylkowski, TAFE External Studies College.

Members of the branch attended the annual seafarers service held in St Johns Church, Fremantle, J Thompson leading the congregation in the prayer for the guidance of designers, builders and engineers.

As a Centenary gift to the youth of Western Australia the branch sponsored a cadet for a ten day voyage on the Sail Training Ship *Leewuin*, a three masted brigantine. The final evening function, hosted by the branch, was a trip down the Swan river on board the SS *Decoy*, a replica of a steam paddle wheel ferry which operated on the river at the turn of the century. It was a memorable conclusion to a successful meeting and a nostalgic climax for those who had the opportunity to sail in steam.

Programme of meetings held

16 November 1988

"Planned courses for certificate of marine engineer & associate diploma engineer marine to satisfy D.O.T. requirements for marine engineer certificates and Australian Council of Tertiary Awards" by R Fairchild, Senior Lecturer Fremantle College of TAFE.

23 January 1989

"Marine coatings" by T Oestad, Manager, Drew Omeroid Marine.

15 March 1989

"State ships and the future" by D Wilson, Chief Executive, W A Coastal Shipping Commission.

17 May 1989

"Proposed integrated entry into industry & examinations for engineering certificates" by J Mallows, Principal Examiner of Engineers, Department of Transport

19 July 1989

"Aluminium alloy as a construction material for shipbuilding" by J Cooke, Manager Products Development, Comalco, Australia.

8 September 1989

Visit to HMAS *Stirling*. Inspection of the submarine escape training facility and demonstration of its use.

### **Auckland**

The branch programme for the year included the following lectures:

5 October 1988

Annual General Meeting of the branch

4 November 1988

Lecture by W Trigg, Marine Consultant on the Australian Maritime College, Launceston, Tasmania. This was a joint meeting with the Naval Architectural Group.

13 April 1989

The Division Secretary, Mr Keith Murray visited the branch and addressed members on various issues of interest to the Institute.

1 June 1989

A joint meeting with the Naval Architectural Group - were treated to an interesting evening by the Non-Destructive Testing Section of Air New Zealand. This section was developed to carry out NPT on aircraft but has now been extended to cover marine materials.

6 July 1989

The Naval Architectural Group and the branch held a further joint meeting which took the form of a panel discussion on problems in the marine use of aluminium.

4 September 1989

The branch joined the Naval Architectural Group to hear Professor Peter Joubert from the University of Melbourne present a lecture on "The strength of yacht hulls exposed to impact loading". This lecture covered various materials and had application to other maritime structures other than yachts.

### **South Island**

During the year four general technical meetings were held:

17 November 1988

Annual General Meeting at the Canterbury Inn, followed by videos on "The fitting of new engines to the MV *Iron Curtis*" and "Steam tug Lyttelton I" also "Steam tugs at Sydney and Brisbane".

1 March 1989

Technical visit to the Christchurch Press Company when members were able to follow through the procedures for the production of one of the major daily newspapers with a special focus on the printing machines.

21 March 1989

Members visited the 75 year old MV *Douglas* at Lyttelton which was touring the world as a floating book shop. This vessel was originally fitted with triple expansion steam engines and was on its second set of Fiat diesel main engines.

A special meeting was held at the Russley Hotel on 10 April 1989 to welcome Division Secretary Mr K Murray on the occasion of his visit to Christchurch. There was an excellent turnout of members at which a lively discussion on the changes in the Institute and marine engineering took place. To promote the Centenary, a selection of posters was displayed in the Christchurch Public Library window for one week during May 1989 giving the history of the Institute.

### **Wellington**

The branch sought to vary its regular technical meetings, so as to offer the widest scope of contemporary topics for members and guests. Commencing on 29 March 1989 and culminating on 27 September 1989, a programme of six meetings was conducted.

Topics completed were:

- Teenagers and their relationships
- The contemporary economic scene
- The new Lady Elizabeth Police Launch
- Life in a deregulated environment
- The ANZAC frigates
- Whispers II offshore cruiser/racer

The Annual Dinner, which this year served to acknowledge the Institute's Centenary, was held in the St George Hotel. The event was well supported, and the venue thoroughly appropriate to the occasion. Fittingly the event was held on 22 July 1989.

A definite highlight during the year was the day trip to Holly Lodge Winery in Wanganui. A luxury coach was chartered for the day and a party of 26 thoroughly enjoyed a day's outing of wining, dining and sightseeing. During the course of the day all participants took a two hour return trip on the Wanganui river on board an authentic paddle steamer. This venue proved to all the viability of such outings, particularly from the aspects of conviviality.

### **Other Branches**

#### **Cork**

During the year the following meetings were held:

11 October 1988

Members attended Moores Hotel to hear a most interesting lecture by A Kennedy on "Combined heat & power at pfizer".

8 October 1988

Mr A F Harrold, President, visited the branch to deliver his lecture, "The investigation of marine casualties". This meeting was one of the most successful and included guests from the Master Mariners Association and students from the local regional technical college. Mr Harrold also paid a courtesy call on the Lord Mayor, Mr Bernard Allen, and visited the nautical studies department of the regional technical college and met staff and students.

19 January 1989

"The effect of the Single European Act on marine transport in 1992" was the title of a lecture given by J Kenna of the Confederation of Irish Industry. This lecture was held in conjunction with the Master Mariners Association.

1 March 1989

Annual General Meeting, followed by "Chemical cleaning of plant" by M Coop and S Metcalfe.

18 June 1989

Annual Summer Outing. Members, wives and children enjoyed a very full day out including a harbour trip to Fota Island, tour of the wildlife park and barbecue.

#### **Dublin**

The following were the activities for the year:

19 October 1988

Annual General Meeting held at Shell House, Dublin..

9 November 1988

Visit from the President, A F Harrold, who read his paper entitled "The investigation of marine casualties"

8 March 1989

A paper "Wave energy" was read by Dr T Whittaker of Queens University, Belfast on a wave energy installation at Islay on the west coast of Scotland. Dr Whittaker was supported by A Bell of Kirk McClure and Morton the Belfast firm of consulting engineers, who designed and supervised the civil works on the project.

19 April 1989

Paper "VO2 effluent treatment" was read by T Maguire who holds a patent on the process.

7 April 1989

Social function to celebrate the Institute's Centenary in the Dalkey Island Hotel. A very good night was had by all.

#### **Eastern USA**

During the year, the following technical meetings were held:

5 October 1988

"The restoration of the Liberty ship *John W Brown*" by W Boylston, Vice-President, Seaworthy Systems

6 December 1988

Joint meeting with SNAME and new York Port Engineers. "Development of new large bore, medium speed, marine diesel engines" by K Yannes, Wartsila Diesel, Inc.

8 March 1989

Joint meeting with ASNE, "IHI zone technology implementation at Philadelphia Naval Shipyard" by K Baba, T Wada and S Kondo. Ishikawajima Heavy Industries Co.Ltd.; Lt.Cdr. M S. O'Hare, Philadelphia Naval Shipyard; J C Schaff, George G Sharp, Inc.

31 May 1989

Joint meeting with ASNE, "The development of composites in the Navy" by Dr V J Castelli, Head, Composites and Resins Branch, David Taylor Research Center

#### **Greek Joint**

The following activities were organised during the year:

23 January 1989

"Pumps and pumping system for conventional tankers and LPG carriers". "Submerged hydraulically driven cargo handling systems for product tankers" by Kvaerner-Eureka A/S

14 February 1989  
"Unconventional cargo handling in reefer ships" by G Carlberg

16 March 1989  
"Propulsion and power generating in the nineties" by Mr Mageri. "Advanced technology for maintenance and world-wide service" by F. Peipers

21 September 1989  
"The evolution of lubrication for marine propulsion" by R F Thomas.

### **Hong Kong Joint**

The joint branch hosted a delegation of seven delegates from the Guangdong Society of Naval Architects and Marine Engineers, who were in Hong Kong from 30 May 1989 to 9 June 1989. There was a paper presentation and an agreement between GSNAME and RINA was signed for distribution of the latter's publications in the Peoples' Republic of China. A number of visits to marine installations were arranged. A second agreement between the GSNAME and HKJB was signed to promote cooperation in the field of marine technology.

Lt Commander R A Pearson of the US Consulate General arranged a visit for joint branch members to the aircraft carrier, USS *Midway* in March 1989.

The Annual Ball was held in November 1988 with Ms Wensley, Australian Consulate General as Guest of Honour.

The following technical meetings were held

11 October 1988  
"Ultrasonics for improving the burnability of fuel oils" by F. Vota, President, Volma, Italy.

1 December 1989  
"Combined liquefied gas and chemical tankers" by Mr Anslot, Senior Principal Surveyor, Bureau Veritas.

5 January 1989  
"Nico marine gears and omega generation drives" by K H Chan, Oceangears Ltd., Hong Kong.

8 March 1989  
"Development of software and hardware for ship design and production applications" by W Horsham, British Maritime Technology and G Marshall, also of BMT.

11 May 1989  
"The significance of balancing, rotating and reciprocating machines" by B Thomas, Vibration Consultants and Instruments Co Ltd., England.

31 May 1989  
"An investigation into energy-saving fishing boat forms" by L Huailong, L Ganluo, L Jieya and T Zhengsheng, Guangdong CSNAME.

The paper was given by Professor Li in Chinese with interpretation by S W Cheung of the Marine Department, Hong Kong. It was the first time a presentation entirely in Chinese had been made to the joint branch.

28 September 1989  
"ABS (life) extension guidelines" by J Dolan, ABS.

### **Malaysia Joint**

The following technical papers and talks were presented:

24 February 1989  
"The potential application of computers in the marine industry" by G Marshal, British Ship Consultants.

24 April 1989  
"New developments in tank coatings" by J Happe, Sigma Coatings.

21 July 1989  
"Ship silencing from the acoustic and magnetic dimensions" by K M Lim, Ministry of Defence.

17 August 1989  
"Fixed and compliant offshore structures" by I Bradshaw, Sarawak Shell Bhd.

A dinner to commemorate the Institute's Centenary was held in September 1989 in one of the leading hotels in Kuala Lumpur. Members and guests, Government officials, leading figures in the maritime industry and previous guest speakers totalling 160 graced the occasion.

The branch is looking into various methods to further enhance the image of the IMarE/RINA in Malaysia. Awards to students excelling in maritime institutions is one of the steps being pursued.

### **Malta Joint**

The joint branch activities for the year were as follows:-

26 October 1988  
"Corrosion - a review of related failures" by V Galea, Director of Laga Company Ltd.

23 January 1989  
"Inert gas systems-component to satisfy IMO regulation 62 & associated guidelines" by S M Calderwood and W B Oswell, Directors, F G I Systems Ltd.

31 January 1989  
The 22nd Annual General Meeting

9 February 1989  
"Cranes & winches systems - their operation, servicing, testing and safeguards" by D Sjoelin, Service Training Engineer, Hagglunds Marine & Offshore AB.

23 February 1989  
"The forensic metallurgist in heavy engineering" by K Abela, Chairman, Metalfond Company Ltd.

21 March 1989  
"Shafting vibration and alignment" by Mr Jones, Senior Surveyor, T.I.D.

17 April 1989  
"Electrical equipment in hazardous areas" by A Rigby, ex Lloyds Register Electrical Surveyor.

8 May 1989  
"Bunkering of vessels - technical aspects" by F Sammut, Chairman, Mediterranean Oil Bunkering of Malta.

26 May 1989  
"The history of maltese shipping" by V Wickman

27 May 1989  
The Annual Dinner and Dance was held at the Phoenicia Hotel. Guest of Honour was Professor R V Thompson, President of IMarE accompanied by Mrs Thompson.

### **Netherlands**

The lecture programme for the year included the following topics:-

23 February 1989  
"Dynamic positioning" Joint meeting IMarE/NVTS.

27 April 1989  
"New materials for engine construction, closed cycle engines" by Mr. van Hoogenhuysse.

### **Nigeria**

In January 1989, a seminar on "Marine Casualties" was held at the Nigerian Institute of International Affairs, Lagos. The Chief of General Staff, Vice-Admiral Augustus Aikhomu was represented at the seminar and many eminent Nigerians presented papers on the theme.

The first major maritime casualty to hit Nigeria was on 26 February 1989 when the NNSL's MV *River Gurara* (a general cargo vessel) went down off Portugal with 21 hands including the Chief Engineer Officer and the Master. The branch, jointly with the Nigerian Association of Master Mariners, held a Remembrance/Thanksgiving service for the victims/survivors of that casualty at the Cathedral Church of Christ, Marina, Lagos on 9 July 1989. The service was well attended and the Chief of Naval Staff was represented by Rear-Admiral Atukum who read the first lesson.

### **Pakistan**

The branch was moderately active during the year. Technical meetings were held and there was a renewed interest in the Institute with young engineers contacting the branch regarding membership.

### **Singapore**

The branch held its 31st Annual General Meeting on 29 December 1988. Several technical talks were organised, some jointly with the Society of Naval Architects &

Marine Engineers Singapore (SNAMES). Among those were talks on steam energy conservation and piping analysis.

The branch met a contingent from the Australia/New Zealand Division in July 1989 who were on their way to attend the Institute's Centenary. The technical-cum-social evening was meaningful as much has been learned from the exchange of technical experiences.

Three issues of the branch Bulletin were published. The branch "Membership Directory & Handbook 1989" was also published.

The branch was represented on the Singapore Polytechnic Shipping Industry Advisory Committee and the Ngee Ann Polytechnic Shipbuilding & Offshore Engineering Advisory Committee.

Three prizes were awarded to polytechnic students for their outstanding academic performance in the marine engineering course and shipbuilding and offshore engineering course.

#### **Sri Lanka**

The year under review was of great significance being the Silver Jubilee of the branch and the Centenary of the Institute.

Technical seminars and meetings were held at regular intervals in addition to a marine exhibition held for the first time in Sri Lanka. The 25th Anniversary celebrations were held with a Gala Dinner and Dance to coincide with the Centenary and Silver Jubilee.

Activities of the branch were as follows:-

29 March 1989

Technical visit to the Ceylon Steel Corporation complex at Oruwala, Athurugiriya with National Apprenticeship Board (N.A.B.) apprentices.

9 August 1989

Technical lecture on "Cad/Cam system for steel and mechanical fabrications" by B Pruin & P Ellerick, Schiffko GmbH, West Germany.

14-16 September 1989

"Marinex '89" Seminar and Exhibition held at Hotel Lanka Oberoi. Principal guests- Hon. A R Mansoor, Minister of Trade and Shipping, S M B Dolapilla, President, Institute of Engineers, Sri Lanka, His Excellency the British High Commissioner.

Other dignitaries included - Hon I Hettiarachchi, Minister of State for Shipping, Mr L Fernando, Secretary, Ministry of Trade, Mr S M W Kirinde, Secretary, Ministry of State for Shipping, Mr C P Jayasinghe, Director of Merchant Shipping and Mr P Ellerick, M/s. Schiffco GmbH, West Germany.

During the seminar the following topics were discussed:-

"Colombo as a competitive trans-shipment post for major ship operators"

"The emerging role of the professional marine engineer ashore"

"Ships for transportation of liquified gas LNG/PLG"

"Present and future marine engineering education in Sri Lanka"

"Napier turbochargers".



# OFFICERS OF THE INSTITUTE

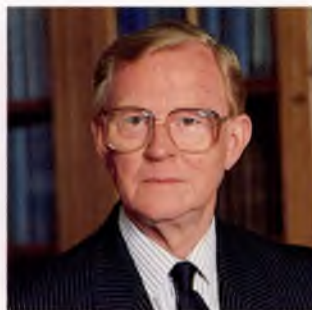
## Principal Officers



*Michael Vallis*  
Deputy President



*Gerald Geddes*  
Deputy President



*John McNaught*  
Honorary Treasurer



*Jolyon Sloggett*  
Secretary

## Past Presidents

- |           |  |           |  |
|-----------|--|-----------|--|
| * 1889    | Asplan Beldam  | * 1935    | Sir Maurice E. Denny, Bt., K.B.E., S.B., J.P.            |
| * 1890    | G. W. Manuel, R.N.R.                                   | * 1936    | Rt. Hon. Lord Craigmyle of Craigmyle                     |
| * 1891    | Peter Denny, LL.D.                                     | * 1937    | Sir Stephen J. Pigott, D.Sc., J.P.                       |
| * 1892    | Rt.Hon. Lord Kelvin, G.C.V.O., LL.D., F.R.S.           | * 1938    | Sir E. Julian Foley, C.B.                                |
| * 1893    | Sir W. H. White, K.C.B., LL.D., F.R.S.                 | * 1939-41 | Sir Percy E. Bates, Bt., G.B.E.                          |
| * 1894    | Sir Thomas Sutherland, G.C.M.G.                        | * 1942    | Rt. Hon. Lord Mottistone, P.C., C.B., C.M.G., D.S.O.     |
| * 1895    | Eng. Vice-Admiral Sir A. J. Durston, K.C.B.            | * 1943-44 | Eng. Vice-Admiral Sir George Preece, K.C.B.              |
| * 1896    | Sir Edwin Sandys Dawes, K.C.M.G.                       | * 1945    | Sir William Crawford Currie, C.B.E.                      |
| * 1897    | Sir J. Fortescue Flannery, Bt., M.P.                   | * 1946-47 | Sir Amos L. Ayre, K.B.E., D.Sc.                          |
| * 1898    | John Inglis, LL.D.                                     | * 1948    | Cdr. Sir Robert Micklem, C.B.E., R.N.                    |
| * 1899    | Rt. Hon. Lord Inchcape, G.C.M.G., K.C.S.I., K.C.I.E.   | * 1949    | Rt. Hon. Lord Rotherwick                                 |
| * 1900    | Colonel J. M. Denny                                    | * 1950    | Sir A. Murray Stephen, M.C., B.A.                        |
| * 1901    | John Corry, J.P.                                       | * 1951    | S. F. Dorey, C.B.E., D.Sc., Wh.Ex., F.R.S.               |
| * 1902    | D. J. Dunlop   | * 1952    | Rt. Hon. Lord Howard De Walden                           |
| * 1903    | Sir John Gunn, Kt.                                     | * 1953    | Sir Gilmour Jenkins, K.C.B., K.B.E., M.C.                |
| * 1904    | The Hon. Sir Charles A. Parson, O.M., K.C.B.           | * 1954-55 | H. A. Silley   |
| * 1905    | Rt. Hon. Lord Bearstead of Maidstone                   | * 1956    | Sir Donald F. Anderson                                   |
| * 1906    | Rt. Hon. Viscount Pirrie, K.P., P.C.                   | * 1957    | Sir Ronald Garrett                                       |
| * 1907    | Sir James Knott, J.P.                                  | 1958      | E. L. Denny, B.Sc.                                       |
| * 1908    | James Denny, J.P.                                      | * 1959    | Sir William Wallace, C.B.E., LL.D.                       |
| * 1909    | James Dixon (died July 1909)                           | 1960      | Rt. Hon. Viscount Simon, C.M.G.                          |
| * 1909    | James Denny, J.P. (from August 1909)                   | * 1961    | C. C. Pounder  |
| * 1910    | Sir David Gill, K.C.B., D.Sc., F.R.S.                  | 1962      | His Royal Highness, The Prince Philip, Duke of Edinburgh |
| * 1911    | His Grace the Duke of Montrose, K.T., C.B., C.V.O.     | 1963      | Sir Nicholas Cayzer, Bt.                                 |
| * 1912    | Summers Hunter, C.B.E.                                 | * 1964    | A. Logan, O.B.E.   |
| * 1913    | Sir Thomas L. Devitt, Bt.                              | * 1965    | Sir John Hunter, C.B.E., B.Sc., J.P.                     |
| * 1914-15 | Sir Archibald Denny, Bt., LL.D.                        | * 1966    | Sir Stewart MacTier, C.B.E., M.A.                        |
| * 1916    | Sir James Mills, K.C.M.G.                              | * 1967    | Vice-Admiral Sir Frank Mason, K.C.B.                     |
| * 1917    | R. H. Green  | 1968-69   | F. B. Bolton, M.C.                                       |
| * 918     | J. T. Milton, D.Sc.                                    | 1970      | M. A. Sinclair Scott, C.B.E.                             |
| * 1919-20 | Rt. Hon. Viscount Weir of Eastwood, G.C.B., P.C., D.L. | 1971      | R. Munton, C.B.E., B.Sc.                                 |
| * 1921    | Rt. Hon. Lord Maclay of Glasgow, P.C., LL.D., J.P.     | 1972      | Vice-Admiral Sir George Raper, K.C.B.                    |
| * 1922    | Eng. Vice-Admiral Sir George G. Goodwin, K.C.B., LL.D. | 1973      | Dr. S. Archer  |
| * 1923    | Rt. Hon. Earl Howe, C.B.E., P.C.                       | * 1974    | Dr. A. W. Davis  |
| * 1924    | Sir Westcott S. Abell, K.B.E., M.A.                    | 1975      | T. Kameen  |
| * 1925    | Rt. Hon. Lord Inverforth, P.C.                         | 1976      | G. Victory   |
| * 1926    | Rt. Hon. Lord Kyslant of Carmarthen, G.C.M.G.          | 1977      | G. McNee, B.Sc.  |
| * 1927    | Eng. Capt. W. Onyon, M.V.O., R.N.                      | 1978      | D. H. Alexander, O.B.E., F.C.G.I., M.Sc., Wh.Sc.         |
| * 1928    | Sir Alan G. Anderson, G.B.E.                           | 1979      | J. McAfee  |
| * 1929    | Eng. Vice-Admiral Sir Robert B. Dixon, K.C.B., D.Eng.  | 1980      | L. D. Trenchard  |
| * 1930    | Lieut. Cdr. Sir August B. T. Cayzer, Bt., R.N.         | 1981      | J. McNaught  |
| * 1931    | Sir Frederick E. Rebbeck, K.B.E., D.Sc., D.L., J.P.    | 1982      | Commander E. C. Pidgeon, R.N.                            |
| * 1932    | Cdr. Sir C. W. Craven, Bt., O.B.E., R.N.               | 1983-84   | B. Hildrew, C.B.E., M.Sc.                                |
| * 1933    | Sir S. George Higgins, C.B.E.                          | 1985-86   | Dr. J. Cowley, C.B.E.                                    |
| * 1934    | John H. Silley, O.B.E.                                 | 1987-88   | A. F. Harrold, B.Sc.                                     |

\* Deceased

### Past Chairmen of Council

- \* 1889-97 J. H. Thomson
- \* 1898 S. C. Sage
- \* 1899-00 A. Boyle
- \* 1901-06 W. C. Roberts
- \* 1907-08 W. Lawrie
- \* 1909-12 J. T. Milton, D.Sc.
- \* 1913-14 J. Hallett
- \* 1915 George Adams
- \* 1916 H. A. Ruck-Keene
- \* 1917 A. Boyle
- \* 1918 J. Shanks
- \* 1919 B. P. Fielden
- \* 1920 James M. Dewar
- \* 1921 H. A. Ruck-Keene
- \* 1922 J. Clark
- \* 1923 James Carnaghan
- \* 1924 B. P. Fielden
- \* 1925 F. M. Timpson
- \* 1926 R. S. Kennedy
- \* 1927 A. H. Mather
- \* 1928 W. E. Farenden
- \* 1929 R. T. Wilson (to 2nd September) then J. Nicol
- \* 1930-31 H. J. Vose
- \* 1932 James Carnaghan
- \* 1933 S. N. Kent
- \* 1934 J. Hamilton Gibson, O.B.E., M.Eng.
- \* 1935 T. R. Thomas, B.Sc.
- \* 1936 H. S. Humphreys
- \* 1937-38 R. Rainie, M.C.
- \* 1939 A. F. C. Timpson, M.B.E.
- \* 1940 F. W. Youldon
- \* 1941 T. A. Crompton
- \* 1942 H. J. Wheadon
- \* 1943 J. Calderwood, M.Sc.
- \* 1944 S. A. Smith, M.Sc.
- \* 1945 W. Lynn Nelson, O.B.E.
- \* 1946 J. A. Rhynas
- \* 1947 W. Sampson
- \* 1948 R. K. Craig, C.B.E.
- \* 1949 A. Logan, O.B.E.
- \* 1950 G. Ormiston, C.B.E.
- \* 1951 James Turnbull, O.B.E.
- \* 1952 R. W. Cromarty
- \* 1953 Stewart Hogg, O.B.E.
- \* 1954 J. P. Campbell
- \* 1955 W. J. Ferguson, M.Eng.
- \* 1956 T. W. Longmuir
- \* 1957 Rear-Admiral F. E. Clemitson, C.B.
- \* 1958 R. Munton, C.B.E., B.Sc.
- \* 1959 R. Cook, M.Sc.
- \* 1960 W. R. Harvey, O.B.E.
- \* 1961 B. P. Ingamells, C.B.E.
- \* 1962 Vice-Admiral Sir Frank Mason, K.C.B.
- \* 1963 Cdr. F. M. Paskins, O.B.E., R.D., R.N.R.
- \* 1964 W. Young, C.B.E.
- \* 1965 H. N. Pemberton
- \* 1966 R. R. Strachen, C.B.E.
- \* 1967 J. McAfee
- \* 1968 Captain W. S. C. Jenks, O.B.E., R.N.
- \* 1969 B. Hildrew, M.Sc.
- \* 1970 H. E. Upton, O.B.E.
- \* 1971 W. McClimont, B.Sc.
- \* 1972 R. L. Rawlings

### Past Honorary Treasurers

- \* 1889 J. W. Domoney
- \* 1890-96 Robert Leslie
- \* 1897-00 F. W. Shorey
- \* 1901-03 G. W. Kidd
- \* 1904-05 James Blake
- \* 1906-18 A. H. Mather
- \* 1919-55 A. Robertson, C.C.
- \* 1955-66 J. Calderwood, M.Sc.
- \* 1966 H. J. Wheadon
- \* 1966-72 R. Cook, M.Sc.
- \* 1973-79 J. McNaught
- \* 1980-81 G. McNee, B.Sc.

\* Deceased

### Honorary Vice-Presidents

T. W. Bunyan, OBE BSc  
Lt. Cdr. J. H. Coles, R.N.  
G. Den Bakker  
W. McLaughlin, M.B.E.  
Cdr. F. M. Paskins, R.N.  
W. H. Sampson  
J. Sloan, M.Sc.  
A. H. Stobbs  
J. B. Thompson  
Rear Admiral R. C. F. Hill R.N.  
(for the Royal Navy)

### Honorary Fellows

H.R.H. The Prince Philip, Duke of  
Edinburgh, K.G., K.T., O.M., G.B.E., P.C.  
J. S. Robinson, M.A. (Cantab)

### Council and Committees as at 30 September 1989

#### Council

##### President

Prof. R. V. Thompson, Ph.D.

##### Deputy Presidents

Rear Admiral M. A. Vallis, C.B.  
G. Geddes

##### Honorary Treasurer

J. McNaught

##### Vice-Presidents

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A. L. Budd  
C. A. Creber, M.Sc.  
D. R. Cusdin  
I. J. Day  
R. M. Duggan, M.A.  
G R Hodge, B.A.  
R. F. Munro  
S. W. Nicholls  
S. G. Pratt  
P. S. Rosseter  
S. Speed  
E. A. Stokoe  
A. J. Wharton  
J.H. Gilbertson, M.B.E. (casual vacancy)

##### Fellows of Council

G. G. Connor, O.B.E.  
Dr J. Cowley, C.B.E.  
W. Findlay  
A. Galloway  
J. Hicks  
E. E. Hopkins, M.B.E.  
M. V. Jones, B.Sc. (Hons)  
J. A. Lazaras  
P. M. Low, BSc  
E. D. Mackie, O.B.E.  
D. McKinlay, O.B.E.  
T. C. McNeill  
Cdr. E. C. Pidgeon, O.B.E., R.N.  
T. Raylor  
A. Rose, M.Sc.  
S. S. Rosseter  
D. W. Smith  
H. V. Spawls, M.M.  
I. Thorpe, M.Phil.  
H. E. Tune  
G. J. A. White, R.D., B.Sc.  
R. J. Whyte  
A. G. Wood  
J. C. Woodhead

##### Members of Council

D. C. Armstrong  
M. S. Bradley, B.Sc.  
M. Robertson  
B. E. Gilmour (casual vacancy)

### Associate Members of Council

R. Beams  
T. F. Floyd  
J. S. Hook  
D. J. Jack  
Cdr. A. C. Moore, R.N.  
Lt. Cdr. F. Muscroft, R.N.

### Committees

#### Council Advisory and Policy

Rear Admiral M. A. Vallis, C.B.  
(Chairman)  
R. Beams  
M. S. Bradley, B.Sc.  
C. A. Creber, M.Sc.  
D. R. Cusdin  
R. M. Duggan, M.A.  
G. Geddes  
J. Hicks  
G. R. Hodge, B.A.  
E. D Mackie, O.B.E.  
D. McKinley, O.B.E.  
J. McNaught  
Cdr. A. C. Moore, R.N.  
R. F. Munro  
Cdr. E. C. Pidgeon, O.B.E., R.N.  
S. Speed  
A. J. Wharton  
A. G. Wood  
J. C. Woodhead

#### Council Advisory Groups

##### Office Bearers

Rear Admiral M. A. Vallis, C.B.  
(Chairman)  
C. A. Creber, M.Sc.  
D. R. Cusdin  
R. M. Duggan, M.A.  
G. Geddes  
D. McKinlay, O.B.E.  
J. McNaught  
Cdr. A. C. Moore R.N.  
S. Speed

##### By-Laws

Rear Admiral M. A. Vallis, C.B.  
(Chairman)  
G. Geddes  
G. R. Hodge, B.A.  
J. McNaught  
A. J. Wharton  
J. C. Woodhead

##### Overseas Affairs

Rear Admiral M. A. Vallis, C.B.  
(Chairman)  
D. R. Cusdin  
G. Geddes  
G. R. Hodge, B.A.  
J. McNaught  
Cdr. E. C. Pidgeon, O.B.E., R.N.  
A. G. Wood

##### External Policies

Rear Admiral M. A. Vallis, C.B.  
(Chairman)  
D. R. Cusdin  
G. Geddes  
J. McNaught  
S. Speed  
A. G. Wood

##### Joint Liaison (RINA/IMarE)

Prof. R. V. Thompson, Ph.D. (Chairman)  
G. R. Hodge, B.A.  
P. M. Low, B.Sc.  
S. W. Nicholls  
Rear Admiral M. A. Vallis, C.B.

## Marine Management (Holdings) Limited

### Board

Prof. R. V. Thompson, Ph.D. (Chairman)  
Dr. J. Cowley, C.B.E.  
I. J. Day  
A. Galloway  
G. Geddes  
A. F. Harrold, B.Sc.  
J. McNaught  
P. S. Rosseter  
H. E. Tune  
Rear Admiral M. A. Vallis, C.B.  
P. M. Buckton (Secretary)

### Administration

#### Building Maintenance

H. E. Tune (Chairman)  
J. Hicks  
J. Heighway  
D. McKinlay, O.B.E.  
J. McNaught  
Cdr. E. C. Pidgeon, O.B.E., R.N.  
S. Speed  
E. A. Stokoe

#### Social Events

P. S. Rosseter (Chairman)  
G. Geddes  
Rear Admiral P. G. Hammersley, C.B., O.B.E.  
J. Heighway  
S. G. Pratt  
S. Speed  
A. J. Wharton

### Learned Society, Members' Services and Professional Affairs

#### Technical Papers and Conferences

P. M. Low, B.Sc. (Chairman)  
S. M. Adamson  
G. G. Connor, O.B.E.  
N. A. Haines (Manadon)  
M. Holderness  
P. S. Katsoulakos  
J. A. Lazaras  
I. H. Livingstone  
T. C. McNeill  
K. J. Overton  
R. V. Pomeroy B.A., M.A.  
A. Rose, M.Sc.  
S. S. Rosseter  
D. W. Smith  
G. S. Smith  
Capt. J. R. Smith, R.N.  
N. S. Swindells (Co-Opted)  
I. Thorp, M.Phil.  
R.F. Thomas (Co-Opted)  
H. E. Tune  
Rear Admiral M. A. Vallis, C.B.

#### Joint Offshore Group (IMarE/RINA)

A. Rose M.Sc. (Chairman)  
S. M. Adamson  
C. J. MacFarlane, B.Sc.  
N. Marguerie  
S. Nicholls  
D. W. Smith

#### Marine Electrical Engineering - (Sub-Committee)

D. St. J. Seigne (Chairman)  
W. T. Blythe  
J. H. Davidson  
B. Fowler  
A. J. Mitchell  
J. D. Morgan  
G. S. Penrose  
M. Robertson, B.A.  
J. K. Robinson M.Sc.  
J. F. Simpson, B.Sc.  
G. E. Woodliff

### Membership

S. W. Nicholls. (Chairman)  
R. Beams  
G. K. Henderson  
J. S. Hook  
E. E. Hopkins, M.B.E.  
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