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Letter from the President

May 8th 1980 in London saw the inauguration of our Federation, at a meeting full of enthusiasm, high hopes and expectations, and perhaps a little uncertainty as to the exact role the Federation would assume. Three years after the event is perhaps an appropriate time to take stock and to examine what progress has been made. Has the Federation measured up to members' expectations and has it achieved a recognised identity within Europe? Also, as this will be the last occasion on which I write to you as President of the Federation perhaps I may be permitted to speculate a little on the future of EFOMP.

There can be little doubt that the Federation has made substantial progress in the last three years, particularly in terms of its recognition by other international bodies as the organisation which represents medical physics in Europe. Three years ago some of these bodies did not know of the existence of medical physics. Eighteen months ago the Federation was still seeking to make contacts with these organisations but in the last year that effort has borne fruit. EFOMP has established formal liaison with the I.E.C. and the W.H.O. The Federation has been invited to and been represented at a number of meetings and workshops organised by the W.H.O., the I.E.C. and the European Community.

Membership of the Federation continues to grow. The fourteen founder member organisations have been joined by another four, making a total of eighteen. Several groups of our colleagues in Eastern Europe are actively seeking membership of the Federation—but it takes time for them to obtain official permission to join. Ireland has been associated with the Federation since its inception—we live in hopes that one day they will 'get their act together' and become a full member. Despite numerous letters to interested individuals contact with Portugal remains an enigma—can anyone help?

Useful collaboration has been established with a number of scientific bodies in Europe who share common interests with medical physics, and a number of joint meetings have been organised. This year we join the European Association of Radiology in Bordeaux for their Vth European Congress of Radiology from the 5th to 10th of September. There are several sessions in this Congress organised jointly by EFOMP with ESTRO and E.A.R., principally on the theme of quality assurance. The EFOMP Council Meeting will take place in Bordeaux on Saturday, 3rd September immediately before the E.A.R. Congress, and details are given elsewhere in this Bulletin. Please be sure to be present. There are many important issues to discuss.

In Hamburg last September EFOMP organised the Symposium on the Role, Status and Responsibilities of the Clinical Radiation Physicist, which gave an opportunity for members of the Federation, and also physicists and bioengineers from all over the world, to discuss the working papers produced by the Federation's Scientific, Education and Professional Committees. These committees have since been working to produce policy statements for the Federation based on the discussion in Hamburg. It was clear from members' comments that such policy statements were urgently required.

It was a discussion at the Council Meeting in Hamburg which led me to ponder what might be the next steps that EFOMP should take. We have established the Federation as the voice for medical physics in Europe and this in turn has given national organisations a European focal point. But do we need to go further? Do we need to produce guidance and policy statements on topics as basic as the role and place of the medical physics department? I suspect that we do and that without this help and advice many of our colleagues who are struggling to establish medical physics as an independent discipline will feel that the Federation has failed them.

Do we also need to give the Federation a more positive identity to which individual members can relate? Again, I believe that we do. At present we have a Council made up of delegates elected in turn by the Councils of the respective national organisations—all very remote from a medical physicist working on his own in a small radiotherapy department in a large hospital. How can we make that physicist feel that he or she is an integral part of EFOMP? This Bulletin is one way. It reaches every member of the Federation and all members should be encouraged to use it as a means of communication. If you have a problem—or the solution to a problem, why not write to the Editor? I am sure he will be only too pleased to publish correspondence.

Another possibility is that EFOMP should organise scientific meetings. At the inaugural meeting there was a long discussion on this subject with a fairly widely held view that the new Federation should not arrange further scientific meetings as there were already too many meetings, also that Council meetings should be held in conjunction with major scientific meetings so that delegates would be able to claim travel expenses. That policy has been followed in the last three years and while there have been no extra meetings I suspect that this policy has made it more difficult to establish an identity for the Federation and sense of belonging among its members. Has the time come to change this decision? I suspect that it has. A number of topics are arising on which scientific discussion is required and for which EFOMP would now be seen as the logical choice of organisation to undertake the arrangements for a meeting or workshop. Two examples are, the need for European agreement on the practical implementation of quality assurance in diagnostic radiology and a consistent procedure for prescribed dose conversion when changing to SI units (Curies to Becquerels) together with its implication for safety regulations. These and many other subjects are the cause of considerable concern to our colleagues in industry. Workshops or seminars on these topics would start to foster a closer link between EFOMP and industry. To date we have not attracted companies to join EFOMP as collaborating organisations, mainly because industry has been waiting to see how the Federation would develop and what effect it was likely to have. Now that EFOMP is well established I believe it should start to tackle these scientific and industrial problems.

I have written at some length on these controversial subjects in the hope that you will discuss them with your colleagues and then ensure that your national delegates to the Council Meeting in September are well briefed with your ideas. In three short years the Federation has come a long way but it still has a long way to go. Numerous opportunities are beginning to appear in which the Federation can contribute to the development of science in medicine and at the same time present the views of medical physics—opportunities that we cannot afford to miss. There is still a great deal of work to be done and the Federation needs the continuing active support of every member.

It has been a pleasure and a great honour for me to serve as your first President and to be so involved in the first three years of the development of the Federation. I can only express the hope that my efforts have met with your approval and contributed in some small way to the successful development of EFOMP. I would like to thank all the members of the Federation for their support and especially the Officers for all their hard work and to wish my successor, Jean Chavaudra, every success during his term of office.

John Clifton

Notes from the Officers' Meeting

A meeting of the Officer's of EFOMP was held in Berne at the beginning of February, 1983. These notes give information about the matters considered.

Membership. It was reported that organisations in seven countries were considering eventual membership of EFOMP.

World Health Organisation. Dr. Staehr Johansen, the Scientific/Technical Liaison Officer for the European Office of the W.H.O. attended for part of the meeting. Thus it was possible, at first hand, to explore in some depth the possible areas of overlap in the activities of EFOMP and W.H.O.

A matter of considerable interest to the W.H.O. is the preparation of a medical equipment classification, to be used as a base for technology assessment programmes in a project entitled 'Appropriate Technology for Health'. A French classification scheme had been suggested as a basis for this work and it was agreed that the EFOMP Scientific Committee might arrange for member organisations to review the physics section of this classification and comment upon its suitability. Some concern that eventually equipment classifications might lead to laws which limited user choice was expressed. It was pointed out that there might be overlap with other organisations, such as the I.E.C. Further information on the W.H.O. workshops on this topic is included elsewhere in this issue.

The possibility of collaboration with the W.H.O. in the provision of national workshops was discussed. The topics to be considered first are Diagnostic Radiology, following a successful International Workshop in Nurenburg, and Quality Assurance in Radiotherapy. The latter would involve close collaboration with clinicians. At a later stage topics in Nuclear Medicine and the field of Electromedical Equipment will be considered. The detail of arrangements for workshops might vary considerably. The W.H.O. might work directly with EFOMP or might support a local organiser with EFOMP assisting by nominating lecturers.

Education Committee. The meeting provided a useful opportunity to explain to Dr. Johansen the work that had been done by the EFOMP Education Committee. Objectives were agreed for the next work of the group. These were:

1. A comparison of available examination papers
2. A survey of the attitudes of member organisations to the concept of 'Chartered Physicist' status.
3. Preparation of a draft scheme for staff exchanges.
4. Preparation of a draft common core syllabus.

Scientific Committee. It was reported that there had been difficulty in getting co-operation from manufacturers on a standard floppy disc format for CT image data. A firmer approach in which a specification was included in the invitation to tender might be necessary.

Arrangements for the scientific sessions on Diagnostic Radiology and Radiotherapy for the Bordeaux meeting were discussed. Prof. Poretti hoped that the scientific committee would eventually report on developments in NMR.

Publications Committee. The members of the committee were concentrating upon the development of the established publications, C.P.P.M., P.M.B. and European Medical Physics News. The network of correspondents for the latter still required to be strengthened and a larger advertising base established.

Professional Committee. The committee was still awaiting comments from member organisations before finalising the paper it had prepared for the Hamburg meeting. Dr. Asard stated that he would like the committee to consider the question of ethics next.

Relationships with other societies. Various contacts were reviewed and a full report will be presented at the Council meeting in Bordeaux. Specific developments relating to the International Society for Optical Engineering and the European Science Foundation are mentioned elsewhere in this issue.

Finance. The new treasurer led a discussion on various aspects of EFOMP income. It was hoped that advertising income might be increased and that the concept of collaborating manufacturer might be developed.

E. Claridge

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EFOMP Council—Bordeaux, 1983

The fourth Council Meeting of EFOMP is to be held on 3rd and 4th September, 1983, at the Pellegrin Hospital, Bordeaux. The meeting will begin at 9.00 a.m. Member organisations are entitled to send two delegates.

The names of all the Officers and Standing Committee Members was included in the last issue of E.M.P. News. The Treasurer and the Chairmen of the Education, Scientific and Publications Committees have not completed a three-year term of office and therefore continue to serve. Mr. J. S. Clifton will automatically become the Past President.

Member organisations have been approached for nominations for the vacant posts and the Officers of Council wish to propose Mr. J. Chavaudra for the post of President. There will be vacancies on all of the standing committees and any nominations should be communicated to the President or the Secretary General.

EFOMP at the E.A.R. Congress

The Council meeting immediately precedes the fifth European Congress of Radiology and the second meeting of ESTRO.

EFOMP is participating in the organisation of the Congress and there are three sessions in which we are particularly involved. On Tuesday afternoon, 6th September, there is a joint meeting on 'Quality control in Radiotherapy'. On the morning of Wednesday 7th September a joint session on 'Bio-medical problems' will include material on quality assurance in imaging fields and on the finance and introduction of new modalities. Problems of efficacy, efficiency and quality assurance in radiodiagnosis will be considered in sessions on Thursday 8th September.

Physics in Medicine and Biology

Abstracts Service

Two very long serving abstractors for P.M.B. have recently retired. Professor Sven Benner, of Göteborg, has sent a total of some 1,600 abstracts. He is now 83 years old. He has dealt with four journals, including **Fortschr. Geb. Roengenstr.** and in recent years has provided about 30 abstracts per year. Mr. F. S. Stewart, of Edinburgh, has covered 11 journals, recently supplying about 65 abstracts per year. He has also acted as a section sub-editor. Coming so soon after the death of Mr. Raymond Wood, who recently retired as chairman of the Abstracts Committee there is now a clear need for additional volunteers.

Any reader who would like to help should get in touch with Dr. J. L. Birks, Medical Physics Department, Singleton Hospital, Sketty Lane, Swansea, SA2 8QA, U.K. The regular scanning of one or two journals can form a valuable way of keeping up to date with the literature.

W.H.O. Meeting on Technical Equipment

Dr. A. Benini represented EFOMP at a meeting on Technical Equipment, sponsored by the W.H.O. and held in Budapest on 8–10 June 1982.

As well as dealing with Technology Assessment, the three day workshop was designed to provide considerable information for the participants on the organisation of the Hungarian Health Service. Visits were arranged by the Hungarian Ministry of Health to three hospitals representing the three categories of the service.

The first visit was to Vac, where a provincial hospital was seen and the Hungarian programme for X-ray and laboratory development was presented. The X-ray programme considers the catchment area and the kind of examinations to be performed. For example, mammography and angiography are confined to specialist units. Nuclear Medicine and C.T. units are considered in the same programme. The laboratory development programme also envisages three levels of provision dependent upon workload. Level three is for specialist work and automatic equipment is not envisaged in level one establishments. Laboratory results are subject to a national programme of quality control. At present 80% of the reagent need is imported. The second visit was to a category two hospital at Kecskmet and the third to a category three specialist unit, the National Institute of Cardiology. It was clear that the Hungarian technological level, whilst not so sophisticated as that of some Western countries, was well organised and structured. The population is 10 million and about 2.5% of the total income is spent on Health Care. There is a strong desire to make equipment and supplies and evidence of good co-operation between industrial and university groups.

The workshop was intended to consider problems of standardisation and methodology which might be used in Technology Assessment. The participants had been asked to report on activities within their own countries. A main lecture entitled "The practical use of Medical Technology Assessment as a basis for policy decisions in Health Care" was given by Dr. D. Banta, from the Office of Technology Assessment, Congress of the U.S.A. Technology Assessment should include an analysis of both technological and social issues and involves a consideration of the indirect impacts of technology. Decision makers should be provided with information on policy alternatives for matters such as the allocation of research and development funds and the formulation of regulations and legislation. Mr. E. Jonsson, of the Planning and Rationalisation Institute, Swedish Health and Social Services, spoke about clinical trials being conducted in Sweden. The concept of a classification system for equipment was presented by Mr. B. C. Visinescu, Health Services Research (Medical Technology), The Netherlands, and various approaches were then discussed.

At the end of the meeting the discussion led to the suggestion that three working parties be formed, to function as follows:

1. To set up a classification of medical devices.
2. To deal with the broad issues of Health Technology Assessment—this working party should be aware of policy research and try to produce a general philosophy for Technology Assessment in Europe.
3. To consider the role of modern technology in the health system by anticipating trends and developments and producing proposals for education systems.

It was generally agreed that all the data which was collected should be made easily available through W.H.O. Regional Offices. It was agreed that a second meeting would be necessary to develop the proposals in more detail. Dr. K. S. Johansen, M.D., D.D.S., of the W.H.O. European Office, would organise and co-ordinate the work.

As well as the countries already mentioned, the Health Services of Belgium, France, Federal Republic of Germany, Norway, U.S.S.R. and the United Kingdom were represented, as were EFOMP, the European Medical Research Council, and the I.F.M.B.E. It seemed to me that EFMOP's participation in this meeting was extremely important for us. There will be roles for the Federation to play in the development of the philosophy of the programmes and in the collection of information. There is a considerable richness of experience of modern technology and its problems within Europe upon which the project can draw.

Anna Benini

Editor's note

A further W.H.O. workshop on the Organisation of a Health Technology Assessment Network was held at The Hague, at the end of May 1983. EFOMP was represented by Mr. J. S. Clifton. Guidelines are to be drawn up for the proposed network and these will form the basic discussion documents for a meeting to be held in Brussels from 7th to 11th November 1983. EFOMP may be asked to organise seminars or conferences on technology assessment, with sponsorship from the W.H.O.

TRIESTE: 7–11th November 1983

Second International Conference on Applications of Physics to Medicine and Biology and the Second Annual Meeting of the Associazione Italiana di Fisica Biomedica.

The International conference aims, as did its predecessor, to inform physicists, engineers, biologist and medical doctors of the main developments in medical physics. Invited speakers will lecture on 'Methods and Techniques of Hyperthermia', 'Biomedical Information from N.M.R. Imaging Methods' and 'Models of the Cardiovascular System and the Engineering of Cardiac Prostheses'. A.I.F.B. will contribute sessions on 'Work in Progress in Medical Physics in Italy'. The meeting will be held at the International Centre for Theoretical Physics, P.O. Box 586, Miramare, I–34100, Trieste, Italy.

The following speakers have already agreed to participate:

N.M.R. Imaging:	D. Gadian, P. Lauterbur, S. Koenig, R.Ernst
Hyperthermia:	J. Bach-Andersen, R. Cavaliere, T. Cetas, J. Covergard, B. Mondovi, J. Hand
Cardiovascular System:	E. Belardinelli, M. Black, F. Altieri, R. Jarvick, N. Westherof, W. Hennig

as well as M. A. Cormack, A. T. Barker, K. V. Ettinger, G. Fant, M. M. Ter Pogossian, F. Sauli and R. Cesareo.

Contributed papers on current work, in the form of posters only may be offered (abstracts of 100 words to Trieste by 1st September).

EFOMP is one of the sponsoring organisations for this Joint Meeting.

International Electrotechnical Commission

We are grateful to Dr. A. von Arx of the Swiss Society for Radio-Biology and Radiophysics for the following report of the meeting of Sub-Committee SC62 held in Zurich on 28th October 1982.

Sub-Committee SC62C: High Energy Radiation Equipment and Equipment for Nuclear Medicine

Technical Committee TC62 of the I.E.C. is concerned with electrical equipment in medical practice and is divided into four sub-committees. Sub-Committee SC62C deals with high-energy radiation equipment and nuclear medicine equipment and is of particular interest for people working in the field of radiation physics.

The most important work of SC62C is concerned with medical electron accelerators in the energy range of 1–50 MeV. It should be remembered that in 1981 a standard for radiation safety was published (I.E.C. Publication 601–2–1, 'Safety of medical electrical equipment; Part 2: Particular requirements for medical electron accelerators in the range 1 MeV to 50 MeV. Section One: General. Section Two: Radiation safety for equipment). The I.C.R.P. adopted the I.E.C. regulations in its Publication 33 which appeared in 1982.

A further section of the standard which has been in preparation for several years and which was again discussed in Zurich, is that concerned with the electrical and mechanical safety of medical electron accelerators. In essence, only one detail is being disputed, namely the question of whether an anticollision device should be declared compulsory or optional. It can be assumed that as a result of a ballot the National Committees will consent to the non-compulsory formulation and the publication should appear in 1983.

The third part of the comprehensive accelerator standard, the one on performance tolerances, has already become a long 'tale of woe'. Originally the intention was towards fixed tolerance-values for the various properties; for instance, for the agreement between radiation field and optical indication of the field size to be 2mm. Increasing resistance arose from many National Committees against that proposal, primarily out of a consideration that certain safety inspectorates would maintain such specifications too rigidly. The working group therefore made a compromise proposal which was sanctioned in Zurich. The standard will appear in the form of a so-called 'disclosure standard' with the title 'Functional performance characteristics'. In essence it contains precise definitions of the parameters which characterise the functional properties and also lays down the precise method of measurement which the manufacturer has to use for his tests. This will ensure that the technical data of the various available machines are closely comparable and also simplify the evaluation of machines. However, in addition to this standard, the 'tolerance values', set by the working group, will also be published—however, only in the non-compulsory form of a report which provides a sort of 'Code of Practice'. This report will also contain proposals

about initial testing and routine tests during the lifetime of the machine. Provided that the National Committees agree with the proposed standard a suitable I.E.C. Publication (+ Report) could appear at the earliest, in 1984.

A proposed standard on Radiation Safety for 'Telegamma machines' (Co, Cs) was decided upon and the normal voting procedure was adopted. As longer term objectives there are also standards envisaged for therapy-simulators, automated radiation therapy machines, afterloading equipment, accessories and possibly treatment-planning systems.

The work in the area of dosimetry, which also has been going on for over 10 years, has in recent years concentrated on a comprehensive specification for performance tolerances of dosimeters with ionisation chambers used in radiotherapy; it will soon appear as I.E.C. Publication 731. Two additional standards, one on ionisation chamber dosimeters for high-energy X-rays and electrons and the other on the electrical safety of these instruments were released for the voting procedure.

The I.E.C. Publication 690 on 'Signal characteristics and connectors used in nuclear medicine instrumentation incorporating sodium iodide crystal scintillation detectors' was withdrawn, as it was already obsolete due to the rapid technological progress. A new specification which will deal with the gamma camera—computer interface is being prepared. Further proposals for nuclear medicine specifications include activity calibrators, imaging systems, definitions of computer scintigraphy and general safety regulations.

New Standards

The I.E.C. has announced the publication of two new standards of interest to medical physicists. They are further parts to I.E.C. Publication 601, which covers the general safety aspects of electro-medical equipment. The new publications are for high frequency surgical equipment (Publication 601–2–2; 56 pages; 74 Swiss Francs) and short-wave therapy equipment (Publication 601–2–3; 39 pages; 51 Swiss Francs).

Both high frequency surgical equipment and short-wave therapy equipment are widely used in medical practice. They apply significant energy to the patient in performing their medical purposes and both safe use and safe function are important. As well as stipulating requirements for basic safe function, the standards require that information on safe use be provided with the equipment. Of additional value is the inclusion in both of an appendix providing reasons for the requirements of the standards. The information will help the users to adapt provisions to practical circumstances.

Further information from the Information Officer, I.E.C. Central Office, Geneva, or local agencies.

An Invitation from India

The sixth Conference on Medical Physics of the Association of Medical Physicists of India is being arranged for 22–24th October 1983, at the Sher-I-Kashmir Institute of Medical Sciences, Soura, Srinagar—190 011, Kashmir, India. The organising secretary, Dr. S. Kaul, hopes that a number of European physicists will be able to visit the conference and has sent the following information about medical physics in India and the Soura department.

Radiation sources have long been used in medical practice in India but the last 20 years have seen a phenomenal increase in the number of applications. In particular the use of diagnostic radiology has been supplemented by the introduction of nuclear medicine, also accelerators and remote controlled high activity sources have been introduced for the treatment of cancer.

The need for physicists to work in medical institutions in India was felt when Cobalt–60 sources were first introduced in the early 60's. The demand for physicists increased when more institutions obtained these sources, as well as the desire to develop nuclear medicine facilities. Most physicists worked in isolation and there was no rapport among the medical physics community. Until 1961, when the W.H.O. started a course in radiological physics at Bhabha Atomic Research Centre, Bombay, there was no formal training available.

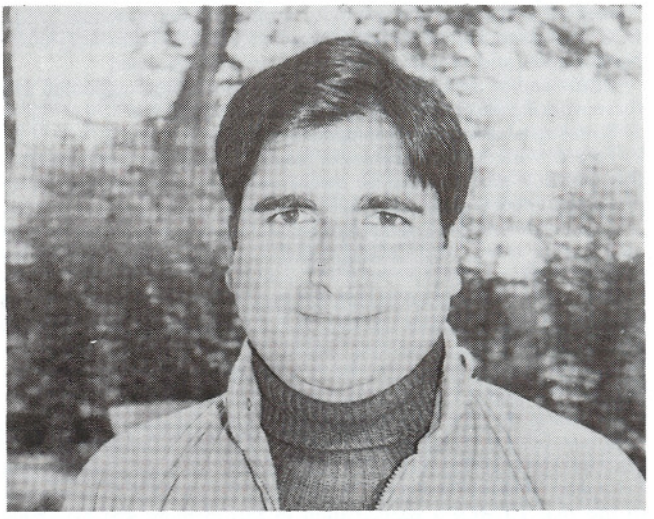
The Association of Medical Physicists of India was formed in 1976. Since then annual conferences have been held to discuss scientific developments and their implementation. A quarterly bulletin is published. The Association had about 100 members in 1976 and now has about 500.

Formal courses on medical physics are now available at various centres. Graduates from them work not only on the provision of routine services but on research, the teaching of M.D. and D.M.R.E. courses and on equipment maintenance. The value of medical physics as an independent speciality is now recognised by the Government and the public health authorities. The need for qualified personnel and good equipment is appreciated. Well organised medical physics services have been established in the major medical institutions.

The Department of Medical Physics and Biomedical Engineering at the Sher-I-Kashmir Institute of Medical Sciences has taken a lead in these developments and looks after the physics needs of the departments of Radiation Oncology, Nuclear Medicine and Radiodiagnosis. Assistance with both routine work and special investigations is provided; there is a dosimetry and calibration laboratory and electronic workshops are being developed. There are about 82 radiation workers at the Institute and personnel monitoring is provided for them. Radiation surveys are conducted for all departments using ionising radiation sources. Advice is also provided on protection requirements for new facilities. There is close collaboration between the Institute's radiation safety laboratory and the Indian Government's Division of Radiological Protection, at the Bhabha Atomic Research Centre. The Institute was partly commissioned in December 1982 and has held two seminars, one on "Ionising Radiations and Health" and one on "Imaging in Nuclear Medicine". Leading Medical Physicists from India and abroad participated.

With the introduction of so many new innovations, such as radio-immunoassay, CT and NMR Imaging, and Digital Radiography, Dr. Kaul sees unlimited scope for contributions from medical physicists as well as an appreciation from clinical and administrative colleagues of the need for an efficient medical physics service. He identifies the following things which need to be done to ensure the healthy growth of Medical Physics:

1. To lobby for funds to support trained and experienced staff in programmes of research and teaching.
2. To convince the public that the continued growth of medical physics is essential to the national interest and welfare.
3. To relate advances in physics to the solution of problems in health, disease and medical care.
4. To improve undergraduate teaching so as to attract more graduates to medical physics and make careers information more readily available.



Dr. Surinder K. Kaul: Dr. Kaul was born in 1949 and educated at Jammu and Srinagar. He began post-graduate work at the University of Kashmir in 1967, obtaining a Master's degree. He then worked with Professor I. S. Mittra at Panjab University, Chandigarh, on Bubble Chamber and emulsion physics. In 1970 he joined the Department of Physics and Astrophysics of the University of Delhi, for research in high energy physics. He was awarded his Ph.D. degree in 1973. He began work in medical physics in 1974 and was concerned with day to day problems in radio-diagnosis, radiation oncology and protection. He moved back to Srinagar in 1976 and has been an active participant in the conferences held in India on medical physics and radiation protection. In 1981 he joined the Institute of Medical Sciences as Consultant and Radiation Safety Officer.

Liaison with the International Society for Optical Engineering

The International Society for Optical Engineering (SPIE) was founded 27 years ago as a non-profit technical society dedicated to advancing engineering and scientific applications of optical, electro-optical and photo-electronic technology. It is an American company with eight chapters, one of which operates in Europe and so provides the obligation for the international scope of the Society. The 1983 International Technical Conference was held in Geneva.

During the Geneva meeting Dr. Joseph Yaver, the Executive Director of SPIE, met with Professor Dr. G. Poretti, Chairman of the EFOMP Scientific Committee, to discuss possible liaison between the two organisations. The main activities of SPIE are to provide its members with technical information through a Bulletin, to organise congresses and to publish proceedings and specialist books. Notable titles have included 'Modular Transfer Functions', 1968, 'Quantitative Imagery in the Biomedical Sciences', 1971, 'Optics and Photonics applied to Medicine', 1979 and 'Image Analysis and Evaluation', 1977. The full time staff at Bellingham, U.S.A. number thirty-five. SPIE is interested in Medical Physics and communicates regularly with the American Association of Physicists in Medicine and the I.E.E.E. Engineering in Medicine and Biology Society. A meeting in Europe, during 1984, on 'Medical Imaging', is being planned.

It has been agreed that SPIE and EFOMP should arrange for a regular exchange of communications, bulletins etc.; that a close collaboration between EFOMP and the European Chapter of SPIE should be sought, and that SPIE's invitation to EFOMP to collaborate in the organisation of the Medical Imaging meeting should be fully explored.

G. Poretti

Scientific Exchange

Ospedali Riuniti di Parma and University College Hospital, London. (U.C.H.)

For the last two years I have been working as an electronic engineer at the Medical Physics and Bioengineering Department of the Ospedali Riuniti Di Parma. Our activities principally revolve around the development of electromedical instrumentation, safety and maintenance of medical equipment, applications of clinical routine tests and computer programming.

In the past year the Director of our Department, Dr. Benini, has visited the Medical Physics Department at U.C.H. and John Clifton from U.C.H. has visited our Department in Parma. As a result of these visits it was concluded that it would be beneficial to arrange for me to spend time at U.C.H. discussing problems of mutual interest with scientists and engineers in that Department. A programme for a one week exchange visit was therefore arranged.

In the first part of my visit to U.C.H. I was shown some applications of the mass spectrometer for PO_2 and PCO_2 monitoring, some interesting examinations concerning auditory evoked poetentials conducted in newborn babies, as well as microprocessing programming and its applications. In the second section of the visit I examined how the problem of measuring the levels of anaesthetic gas waste in operating theatres has been tackled. As part of this programme I was invited to visit an operating theatre when gas levels were measured in order to compare the different scavenging systems employed. This visit was very useful because in our hospital we recently started an investigation of analogous problems in our operating theatres, and our practical experience needed to be confirmed and discussed with a centre which had already considered the problem.

Another subject of particular interest to me was covered in the conversations I had with the staff of the Department responsible for maintenance of electromedical equipment. Maintenance of this equipment is a problem which in recent years has become more and more important, particularly when we consider the enormous costs of the instrumentation. In this field especially I found that the discussion really went deeply into the problems and for this reason the mutual exchange of contributions was very satisfactory. In particular, we exchanged some useful information on the test and maintenance procedures performed on different kinds of electromedical equipment, e.g. defibrillators, diathermy units, incubators, respirators, and monitors etc. Some of the ideas developed and data obtained during the course of my visit have now been incorporated into our existing quality control and inspection programmes. The data that will now be collected as well as the new tests and results will be of course available for a further evaluation and discussion with other physicists and engineers who may be interested.

The substantial amount of useful information which I brought back from my visit to London makes me hope that it may be the first of many such visits organised through EFOMP I feel that this kind of interchange between European countries can really improve the quality of our scientific activities. Our Department in Parma would be very pleased to act as host to a scientist from any centre that would like to arrange a similar exchange to that which we had with the London Department.

Ennio Amori
Servizio di Fisica Sanitoria
Ospedali Riuniti di Parma

Public Parliamentary Hearing on Animal Experiments

From time to time the European Parliament organises 'public hearings' which are intended to give parliamentarians information and insight into the legal, economic social and political aspects of a particular theme. At these hearings the parliamentarians form a 'Jury' and the group under challenge includes competent authorities and experts appropriate to the theme in question. The 9th European Public Parliamentary Hearing, on 'The use of live animals for experimental and industrial purposes' was held in Strasbourg in December 1982 and Professor Dr. G. Poretti represented EFOMP.

The programme was divided into three half-day sessions:

1. The role of experiments on animals in research.
   There were contributions from Professor W. Patou, Department of Pharmacology, University of Oxford, U.K. and Dr. A. Dayan, European Federation of Pharmaceutical Industries' Associations, Brussels.
2. Abuses and alternative methods.
   Dr. J. Hampson, Chief Animal Experimentation Research Officer of the Royal Society for the Prevention of Cruelty to Animals, London and Dr. R. Sharpe, Scientific Adviser to the International Association against Painful Experiments on Animals, Brussels, contributed.
3. Rules
   Dr. S. Erichsen, National Institute of Public Health, Oslo; Dr. A. Granitsa, European Federation of Pharmaceutical Industries Associations, Brussels and Dr. A. Steiger, Office Vététinair Fédéral, Berne, Switzerland all contributed.

Each section included a discussion but only the parliamentary members could put direct questions; the press and the representatives of organisations did this through a chairman. A large group of anti-vivisectionists and advocates of animal protection were also allowed to participate. For the most part the lecturers were excellent; the discussions, however, were dominated by the anti-vivisectionists, who were even supported by groups in the galleries.

A full final report is to be prepared by Mrs. Kerstin Aner, of Sweden. This will be distributed to the participants and hence to the EFOMP Council. In an excellent verbal summary of her impressions at the end of the Hearing Mrs. Aner emphasised four points:

1. Pain.
   How can the animal experiments regarded as necessary for a better life be reconciled with the conscience.
2. Resolve.
   Progressive measures to prevent unnecessary animal sacrifices must be achieved, e.g. the LD50 tests should disappear in their traditional form and alternative methods should be developed.
   Animal experiments for the development of cosmetics, for tobacco research or even educational purposes should be reduced or abolished.
3. Alternative Methods.
   Alternative methods should receive more support.
4. Accountability and responsibility.
   Animal experiments generate difficult ethical problems which must not be solved by scientists alone, but by special committees.

G. Poretti

News from FRANCE

S.P.H.E.F. is dead! — Long live S.F.P.H.

The French Association changed its name last year from the Société des Physiciens d'Hôpitaux d'Expression Française to the Société Français des Physiciens d'Hôpital, thus joining other French national scientific organisations. Since June 1982 the officers of S.F.P.H. have been:

President	P. Aletti
Vice Presidents	J. C. Rosenwald (Past-president) A. Noel
Secretaries	F. Milhaud P. Piret
Treasurer	T. Sarrazin
Redactor	A. Noel
EFOMP delegates	H. Aget D. Lepinoy
IOMP delegate	J. C. Rosenwald

The next annual meeting will be in Versailles on 9–11th June, 1983.

Committee reports

1. Committee for computers in radiotherapy.
Chairman: Mr. Lepinoy, Centre G. F. Leclerc, 21,000 DIJON

A second report is available, entitled "Evaluation des systèmes informatiques en radiothérapie". This report includes details of basic trials on Cobalt 60 beams, isodose charts, obliquity corrections and heterogenity corrections.

The first report, "Choix d'un système informatique pour le calcul des doses en radiothérapie" is being updated and will be available for the annual meeting in Versailles.

2. Equipment committee.
Chairman G. Gaboriaud, Institut Curie, 75005, PARIS.

A second report, entitled "Procès verbal de réception d'une installation de Télégamma-thérapie" will be published in the late summer. It will deal with the methodology to verify all mechanical and dosimetric parameters of a Cobalt unit. It will take into account the recommendations of the I.E.C. protocols.

3. Role and Responsibility Committee.
Chairman Cl. Manny, Centre Saint Ives, 56.000, VANNES.

The first report from this committee is now available and it traces the development of French radiophysics. The present professional responsibilities in radiotherapy, radiodiagnosis, nuclear medicine, radiation protection, research, teaching and other techniques are described. The results of a national survey about the activities, environment and responsibilities of French Hospital Physicists are reported.

D. Lepinoy

Medical Physics Training in Europe

Much of EFOMP's activity in this field so far has been on recommendations regarding the education and training required for European graduates so that they can be regarded as qualified to practise medical physics at a fully responsible level. The recommendations of the EFOMP Committee for Education and Training were published in the European Medical Physics News (Number 4), the special I.O.M.P., Hamburg, issue. These recommendations were discussed at the EFOMP symposium in Hamburg and members' views were invited. It was envisaged that such training would normally be carried out in the physicist's own Medical Physics Department or at least in his or her own country.

However, training in medical physics has much wider application. In EFOMP's Constitution there is a commitment to encouraging scholarships and the exchange of medical physicists between countries. Many national and international bodies are interested in encouraging and supporting a variety of forms of postgraduate training.

The International Atomic Energy Agency has responsibilities for helping to arrange training of physicists from developing countries so that the provision of medical physics services can be enhanced. The I.A.E.A. would welcome assistance towards the more effective placement of trainees in European medical physics centres. Better and wider information on potential training centres is needed.

The World Health Organisation is also interested in the improvement of training of medical physicists and the possible establishment of regional training centres in Africa, and the Far East, etc. European medical physicists have contributed much to this work in the past and could have an even wider role.

The NATO Non-Military Scientific Exchange Programme is aimed at stimulating healthy and broadly based scientific activities to contribute to prosperity and stability. The programme includes fellowships for research in other countries, advanced institutes and workshops for perhaps 50 people, and grants for the travel and subsistence costs of collaborative research. These activities are not confined to scientists from member countries of NATO.

The European Community has, in its medical research component, a committee for Biomedical Engineering. This encourages and supports certain of the costs of collaborative research and development in biomaterials, functional assessment, imaging techniques, ambulatory monitoring, and technical evaluation.

In many European countries there are government supported bodies that are anxious to encourage scientific liaison between the nations of Europe.

On behalf of the EFOMP Committee for Education and Training, I have approached the EFOMP National Organisations for help in identifying medical physics centres or individuals interested in initiating or participating in any of these diverse training and research activities. Your help and responsiveness is sought.

J. S. Orr

N.M.R. Imaging in the United Kingdom

Despite the excitement generated over the past two years regarding the clinical potential of N.M.R. imaging, it is necessary to maintain a perspective. None of the established newer imaging methods, ultrasound, gamma-cameras, C.T., or digital angiography, can be said to be seriously threatened. Never-the-less, the existence of the few early N.M.R. imaging units, the clinical results obtained, and the future commercial production plans, are beginning to have an impact on those responsible for planning the provision of high technology health care.

There are many companies in the world active in the N.M.R. imaging field. Those in Europe include Picker International, M and D Technology, Philips, Siemens, C.G.R., Bruker, and Oxford Instruments for magnets.

Two UK manufacturers of complete imaging units based on early equipment on which large numbers of United Kingdom patients have been studied are Picker International with a machine at the Hammersmith Hospital, and M and D Technology, with equipment at Aberdeen. In each of these places about 1,000 individuals have been examined and a very large range of pathological conditions studied. The Research Director at Picker is Dr. Ian Young whose work in the field began at EMI, and the leader of the team at Aberdeen is Professor John Mallard, a recent President of the I.O.M.P. The UK Department of Health and Social Security and the Medical Research Council have played a major part in getting this work and its evaluation under way.

In the UK each of the above companies has a further machine installed, in Manchester and Edinburgh respectively, and another two are on order. Picker also has an interest in some of the imaging work at Nottingham. Collaboration between physicists at all these centres in the field of image assessment has been established.

A complete list of companies active in N.M.R. parallels those successful in C.T. and a great deal of expensive development remains to be done. If N.M.R. equipment finds a secure role in the imaging armamentarium it is likely that it will offer a wider range of modes of operation than C.T. does. There will therefore often be a need for involvement of medical physicists at many stages of the implementation of a service and a great need for training. Physicists may first have to train themselves.

In addition to imaging N.M.R. offers the possibility of useful quantitative information both on spectra and on relaxation properties. In these fields as well as in some aspects of imaging there will be scope for contributions by medical physics departments.

To help ensure the safety of patients and volunteers the National Radiological Protection Board has issued guidelines, recently revised on the basis of further study and of experience of examinations of about 2,000 individuals. These give guidance on limits for the static field, for the RF absorbed, and for the rates of change of the gradient fields. The absence of ionising radiation hazard has considerable implications for physicists involved in radiological protection.

J. S. Orr

The International Organisation for Medical Physics (I.O.M.P.)

Letter from the Secretary General

The VIth International Congress on Medical Physics, which was combined with the 13th International Conference on Medical and Biological Engineering, was held at Hamburg in September 1982. There were 1260 delegates and 870 papers presented, of which 55 were invited papers. 75 firms participated in the accompanying exhibition. Physicists and engineers from 40 countries attended the Congress.

During the Congress meetings of the I.O.M.P. Council were held, with delegates from 22 member countries, also a meeting of the I.O.M.P. General Assembly and a joint General Assembly of the I.F.M.B.E. and the I.O.M.P. The meetings were called to order by the retiring President, Professor John Mallard, using the plate and gavel presented to the I.O.M.P. by the Hospital Physicists' Association of the United Kingdom.

The most important business transacted at the meetings concerned the formation of the new Union, the Union of Physical and Engineering Sciences in Medicine. This Union was formed in 1980, comprising of the I.F.M.B.E. and the I.O.M.P. and an application was submitted at once for full membership of the I.C.S.U. That application was not successful because there were concerns by 'pure' scientific unions that they might be out-voted by the 'applied' unions. However, in September 1982, after the Hamburg meeting, the General Committee of the I.C.S.U. accepted an application from the I.U.P.E.S.M. for Scientific Associate status. This means that the new Union has no vote at the I.C.S.U. but it is able to take part in all activities of the I.C.S.U. The President of the new Union is Professor John Mallard, without whose efforts it would not have been formed or become affiliated to I.C.S.U.

There are now 28 national members of the I.O.M.P., with the addition of Japan, Italy, Spain, Belgium, India, Switzerland, Thailand, Denmark and Austria since the last Congress, held in Israel in 1979. The new President of the I.O.M.P. is Professor Alexander Kaul of the Federal Republic of Germany. Professor Larry Lanzl of the U.S.A. is the new Vice President and the undersigned, of the United Kingdom, the Secretary-General. The I.O.M.P. is commencing the publication of a bulletin, 'Medical Physics World', which will be circulated to members of all countries belonging to the organisation.

The I.O.M.P. liaises with a number of international bodies including the International Atomic Energy Authority, the World Health Organisation, the International Electro-Technical Commission, and the International Councils of Radiological Units and for Radiological Protection. Delegates are exchanged with EFOMP, each with a voice but no vote.

Since the Jerusalem Congress the I.O.M.P. has participated in several meetings, for instance the 10th Nordic Meeting on Clinical Physics in Finland, the Symposium on Clinical Physics in Bratislava, Czechoslovakia and a Symposium on Training and Education in Radiology in the G.D.R. It sponsored a symposium on the Physics of Ultrasound in the G.D.R. in 1980. There is involvement in the U.S.A. in writing a monogram on Quality Assurance in Diagnostic Radiology and in Japan in attempts to arrange a Radiation Dosimetry Workshop under W.H.O. and I.A.E.A. sponsorship. The I.C.R.U. is liaising with about 15 countries on Quality Assurance in Radiotherapy. It is hoped to organise, in India in 1986, a regional meeting on Medical Physics for associations from Eastern countries and the I.O.M.P. is likely to assist.

The VIIth I.C.M.P. will be held at Espoo, near Helsinki, Finland, from July 8th to 12th, 1985 and the 1988 Congress is likely to be held in the U.S.A.

Brian Stedeford

Meetings Diary
1983

3–5 October, Capri, Italy.
International Seminar on Indoor Exposure to Natural Radiation and Related Risk Assessment.
Symposium Secretariat, Commission of the European Communities, Dr. J. Sinnaeve, (DG XII/F/I), 200 Rue de la Loi, B–1049, Brussels, Belgium.

5–7 October, Madrid, Spain.
2nd Symposium on Biomedical Engineering.
Secretariat, 2nd Simposium de Ingenieria Biomedica, E.T.S.I. Telecomunicacion, Ciudad Universitaria, Madrid–3, Spain.

17–21 October, Brussels, Belgium.
Seminar on the Environmental Transfer to Man of Radionuclides Released from Nuclear Installations.
IAEA–SR–85, P.O. Box 100, Vienna International Centre, A–1400 Vienna, Austria.

24–27 October, Vienna, Austria.
Seminar on Transport of Radioactive Materials by Post.
IAEA–SR–83, P.O. Box 100, Vienna International Centre, A–1400 Vienna, Austria.

11–17 December, London.
European Nuclear Medicine Society.
London Convention Bureau, 26 Grosvenor Gardens, London SW1W 0DU, England.

1984

7–12 May, Berlin (West).
6th International Congress of the International Radiation Protection Association.
R. Neider, Secretary General of 6th IRPA Congress, Bundesanstalt fur Materialprufung (BAM), Unter den Eichen 87, D–1000 Berlin 45.

7–12 May, Strasbourg, France.
5th meeting of the European Federation of Societies for Ultrasound in Medicine and Biology.
Professor F. Weill, Dept. de Radiologie Viscerale, 2 Place St Jacques, CHU, Besancon 2500, France.

28–30 May, Amsterdam, The Netherlands.
Congress on Medical Instrumentation.
Organisatie Bureau Amsterdam BV, Europaplein, 1078 GZ, Amsterdam, The Netherlands.

Please send material for the December 1983 issue of E.M.P. News, by 1st October, to:—
Dr. E. Claridge, Editor E.M.P. News, Department of Medical Physics and Biomedical Engineering, Queen Elizabeth Hospital, Birmingham, B15 2TH, England.

General correspondence concerning the Federation should be addressed to the Secretary-General, Dr. A. Benini, Ospedali di Parma, Servizio di Fisica Sanitaria, 43100 Parma, Italy.

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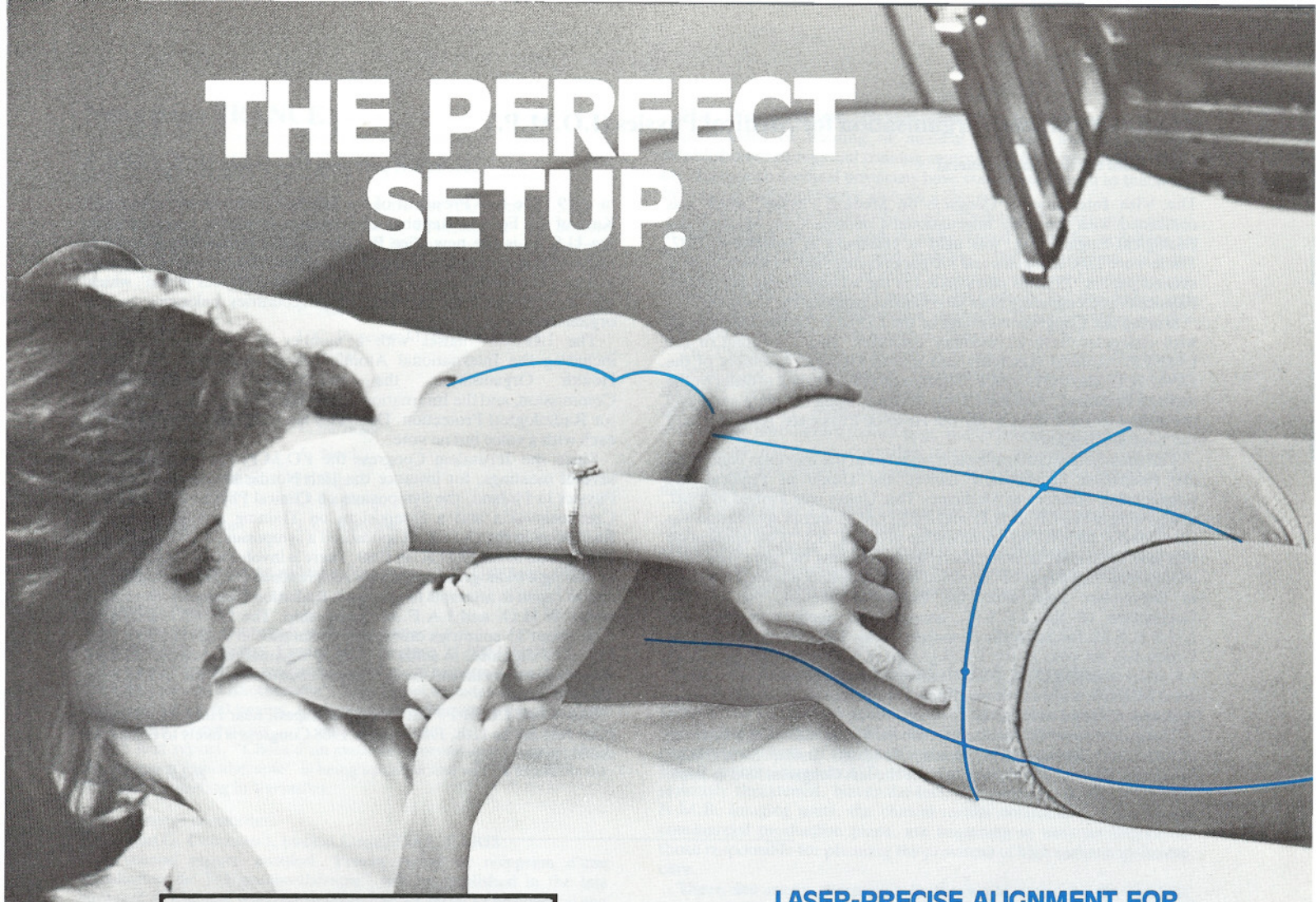

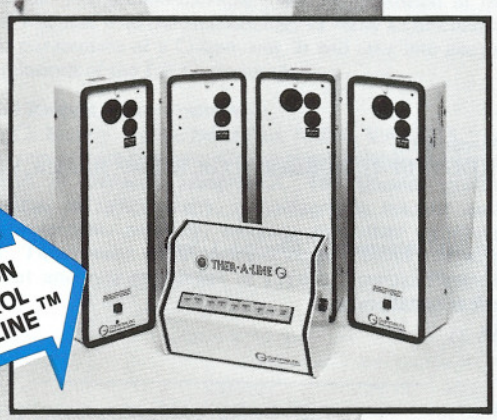

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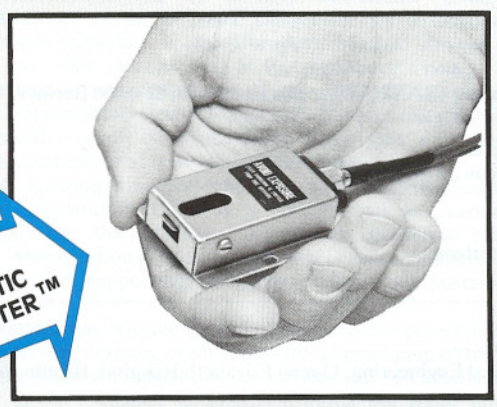

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