

Chapter 10

1981–1985

President: Robert J. Ellingson

During this term the Executive Committee consisted of Robert J. Ellingson (President, USA) (Fig. 10.1), Robert Naquet (Past President, France), Morton D. Low (Secretary, Canada), Max Dondey (Treasurer, France) until his death in 1983, followed by Pierre Buser (France), John E. Desmedt (EMG Commission Chairman, Belgium), C.A. Tassinari (Member-at-Large, Italy), Mary A.B. Brazier (Editor-in-Chief, USA) until 1984, followed by Hans van Duijn (The Netherlands).

News of the death of IFSECN Treasurer Max Dondey saddened the Federation. He died the only victim of a tragic railway accident near Lyon in France on May 1, 1983. During his 10 outstanding years as treasurer, he successfully led the Federation through the financial troubles of the late 1970s. His friends in the Executive Committee remembered him not only as their highly competent Treasurer but for his wise council and wit, and, above all, for the warmth of his friendship. His colleagues considered that he should be remembered in a happy moment, shared here as a photograph of him broaching of the sake barrels at the 1981 Kyoto Congress and presenting at the lectern in San Diego (Figs. 9.1 and 10.2).

Past President Robert Naquet, in addition to his other duties, stepped into the gap left by Max Dondey's death and by acting as Interim Treasurer until a successor to Max Dondey was appointed and confirmed. The Executive Committee appointed Pierre Buser to serve as treasurer and the Council voted unanimously to

confirm this action. This is not the first role in which Pierre Buser has served the Federation. He previously served as Editor of the *EEG Journal* for Europe, Asia, and Africa from 1973 to 1979. To honour Max Dondey, the Executive Committee designated the fellowship travel grants to the XI IFSECN in London, 1985, as Max Dondey Grants for younger scientists or students.

The Federation honoured three distinguished neurophysiologists as Honorary Fellows of the IFSECN during this term. These were William Cobb (UK), Hallowell Davis (USA) and Willem Storm van Leeuwen (The Netherlands). These were unanimously endorsed by the 1985 General Assembly.

1. Member societies

The IFSECN continued to grow with the admission of the Jordanian Society of Clinical Neurophysiology to the Federation in 1985. The EEG Society of India formally withdrew from the Federation in 1979. The Section on EEG and Clinical Neurophysiology of the Neurological Society of India applied for membership and was admitted in 1980. The EEG section of the Polish Psychiatric Association withdrew in 1977 in favour of the Polish Society of EEG and Clinical Neurophysiology. That society applied for and was admitted to membership in 1979.

The Latin American Society had been suspended in the previous Fiscal Period for persistent non-payment of dues. The Peruvian Society

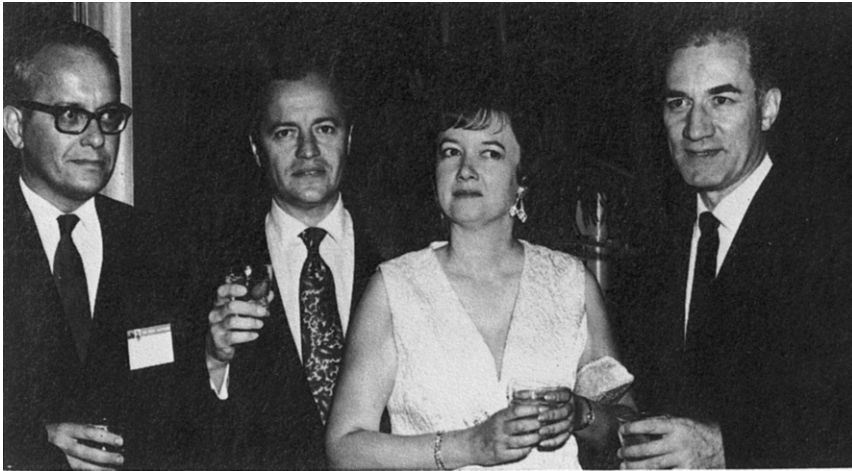


Fig. 10.1. From left to right:

- John E. Desmedt of Brussels. Member of EMG Commission 1973–1977, Chairman 1977–1985, President elect 1985.
- Robert J. (Bob) Ellingson of Omaha, NE. Treasurer 1969 (San Diego) Congress, Secretary 1969–1981, President 1981–1985.
- Marnie Ellingson, wife of Bob.
- Edward (Ed) Lambert, of the Mayo Clinic, Rochester, MN. Chairman of the EMG Commission 1965–1969.



Fig. 10.2. From the previous 1969 Congress, from left to right:

- Max Dondey of Paris. Treasurer 1973–1983, who died in 1983.
- Robert S. Schwab of the Massachusetts General Hospital, Boston, MA, where he and M.A.B. Brazier organized the business side of the new Journal.
- Lennart Widén of Karolinska Institute, Stockholm. Editor of Supplement 25, *Recent Advances in Clinical Neurophysiology*, 1967.
- Charles (Chuck) Henry of Hartford, CT. Compiled the Index of Current Literature, edited Book Reviews and several supplements from 1949 to 1965.

of EEG and Clinical Neurophysiology was admitted to the Federation in June 1979. Several other Latin American nations already had national Clinical Neurophysiology societies.

The Australasian Society dissolved and was no longer a member society, replaced by a national society in Australia. It once represented Australia, New Zealand, Indonesia and the Philippines. Without much notice the Australian Association of Neurologists has been the one writing instead of the Australasian Society. The Executive Committee voted, a little reluctantly, that the EEG section of the Australian Association of Neurologists would be accepted as the member de facto representing Australian neurophysiologists. Inquiries will be made regarding the status of New Zealand and other Asian countries.

Several more societies are in arrears on their dues. Plans were made to put the societies in Turkey, Greece and Uruguay in suspension status within the Federation.

2. The EEG Journal

In 1983, the position of Editor-in-Chief is still in discussion. The proposal of two Editors appointed by the Executive Committee for a maximum of three fiscal periods is acceptable to the Rules Committee. They suggested perhaps the Editor-in-Chief be elected by the General Assembly and be re-eligible once, and be a full Executive Committee member or that the Editor-in-Chief could be appointed by the Executive Committee and be an ex-officio member of the Executive Committee.

At the beginning of this Fiscal Period, Mary A.B. Brazier served as journal Editor-in-Chief and Hans van Duijn served as journal Editor for Europe, Asia, and Africa. Because the new journal is processed in the European office there has been a considerable shift in the balance of work between the two offices. Mary Brazier therefore suggested that she should relinquish the post of Editor-in-Chief in favour of Hans van Duijn (Fig. 10.3), who was conveniently placed for



Fig. 10.3. Hans van Duijn of Amsterdam. Co-editor of Supplement 34, 1978, European Editor 1979, Editor-in-Chief 1984.

daily contact with the desk editor at Elsevier. In accepting this change, which took place on July 1st 1984, the Editorial Board felt that Mary Brazier richly deserved some respite from her heavy labours over the past 11 years. Mary Brazier continued as Editor for the Americas and the Far East.

W.A. Cobb continued to serve the Federation as Publications Editor. He was responsible for relations with the publisher, Elsevier, and for the Supplement series of book publications. He was doing the English language editing of papers submitted through the European office. He edited the book *Recommendations for the Practice of Clinical Neurophysiology* and authored the book *Wave Length, A History of the IFSECN*. He was also general editor of the Handbook series. He previously had served the Federation as the Editor-in-Chief of the EEG Journal.

After many years of slowly decreasing circulation rate, a slight but clear increase was seen during this Fiscal Period in the number of subscribers. With about 3000 subscriptions the Journal had consolidated its position in the competitive field of neuroscience publications.

The number of manuscripts received grew substantially. The American office saw the submitted manuscript number jump to 814, a 62% increase over the 504 manuscripts in the previous four years. The European office saw the submitted manuscript number jump to 612, a 37% increase over the 447 manuscripts in the previous four

years. The rejection rate in both offices was over 40%. Consideration was given to expanding the number of pages published annually to accommodate the increasing number of high quality manuscripts submitted. Instead of simply increasing the pages, the editors suggested initiating a new section of the Journal dedicated to Evoked Potentials. The Executive Committee and publisher accepted this plan. Beginning in January 1985, the journal increased from 12 to 18 issues/year, with 12 issues in the traditional section and the additional six issues in the new Evoked Potential section. This will represent three volumes annually, each based on six issues.

3. Book publications

The EEG Journal Supplement book series continues to accept and publish books relevant to clinical neurophysiology. The *Handbook of Electroencephalography and Clinical Neurophysiology* has been started again as a Revised Series. This will supplement the existing Handbook by updating and including new sections. Bill Cobb invited former Federation President A. Rémond to serve as editor for initial revised series volumes on quantitative analysis, with plans for further volumes to follow on other topics that have changed significantly in the past decade. A. Rémond served as Editor-in-Chief for the original *Handbook of Electroencephalography and Clinical Neurophysiology* in the 1970s.

At the 1981 General Assembly, Otto Magnus reported on the need for a comprehensive manual on the standards of practice in clinical neurophysiology. Otto Magnus served as chair from 1979 to 1981 of the Committee on Standards of Clinical Practice of EEG and EMG. The committee prepared recommendations on the proper clinical laboratory evaluation of patients. A series of reports were published in the *EEG Journal*. To pursue that recommendation, the Executive Committee asked William A. Cobb, a past president and past editor-in-chief, to develop plans for a volume to bring together into one practical

book the various Federation clinical practice recommendations. In addition, the Executive Committee commissioned further clinical guidelines to fill gaps where no guidelines had been produced to date or to update existing ones where appropriate.

The soft-covered reference book, *Recommendations for the Practice of Clinical Neurophysiology*, was published by Elsevier in 1983. William Cobb assembled the volume and guided it through publication. IFSECN was the listed author of the book. Half of the book was from Otto Magnus's Committee on Standards of Clinical Practice of EEG and EMG. It included additional reports on cessation of cerebral function and on EMG quantification as well as earlier publications on instrumentation standards, on terminology, and on the International 10–20 system. Finally the most recent version of the IFSECN Statutes and Bye-Laws from 1977 was included. The history of these clinical and technical reports should be acknowledged.

The First International Congress in 1947 recommended a standardized electrode placement system. The resulting International 10–20 system was accepted at the 1949 International Congress. That electrode placement system was included as an appendix to published IFSECN recommendations endorsed at the IV International Congress in 1957 (*Electroenceph. Clin. Neurophysiol.*, 1958, 10: 367–380). IFSECN's founding President Herbert Jasper authored this report. While these consensus recommendations were initially rather controversial, they eventually have gained essentially universal acceptance. The 1983 *Recommendations* book reprinted this International 10–20 system description.

An EEG terminology proposal was accepted to the VI International Congress in 1965 (*Electroenceph. Clin. Neurophysiol.*, 1966, 20: 306–310) and subsequently expanded to a *Glossary of Terms Commonly Used by Clinical Electroencephalographers* endorsed by the VII International Congress in 1973 and published in the Journal (*Electroenceph. Clin. Neurophysiol.*, 1973, 37: 538–548).

Contributing committee members for this report were G.E. Chatrian (Chairman), L. Bergamini, M. Dondey, D.W. Klass, M. Lennox-Buchthal, and I. Petersén. This Glossary was reprinted in the *Recommendations* book. The many terms defined in this Glossary continue to be in general use in routine clinical EEG, and familiar to the clinical EEG community of physicians and technologists. It remains an excellent teaching tool for physician and technologist trainees.

Recommendations to manufacturers about clinical EEG equipment were endorsed first at the VI International Congress (*Electroenceph. Clin. Neurophysiol.*, 1958, 10: 378–380), later expanded upon at the VIII International Congress in 1973 (*Electroenceph. Clin. Neurophysiol.*, 1974, 37: 549–553), and updated for the IX International Congress in 1977 (*Electroenceph. Clin. Neurophysiol.*, 1978, 45: 144–150). This EEG Instrumentation Standard was reprinted in the *Recommendations* book. Contributors drafting this were J.S. Barlow (Chairman), A. Kamp, H.B. Morton, A. Ripoche, H. Shipton, and D.B. Tchavdarov. Although these recommendations pertained originally to analogue EEG equipment, they mostly remain relevant as standards for the digital EEG equipment. These standards cover amplifiers, visual presentation of tracings, channel cross-talk and other issues that remain even with digital techniques.

The Committee on the Cessation of Cerebral Function reported briefly in 1969 at the VII International Congress (*Electroenceph. Clin. Neurophysiol.*, 1970, 28: 36) and in 1973 at the VII International Congress (*Electroenceph. Clin. Neurophysiol.*, 1974, 37: 530–531). The opinion report to the General Assembly of the X International Congress (*Electroenceph. Clin. Neurophysiol.*, 1982, 54: 9–10) was included in the 1983 *Recommendations* book. Contributing to this report were A.E. Walker (Chairman), D.R. Bennett, A. Bricolo, L. Cigánek, A.M. Gurvich, and N. Chiofalo. Even with standards considered by today's standards, this report has had longstanding influence as a basis cited for early brain death

legal statutes and medical guidelines in various states, leading to later more modern legal and medical standards essential for transplantation medicine. In contrast to most IFSECN recommendations, this report pertains to clinical cerebral function and brain death without specifically covering clinical neurophysiology techniques.

A Committee on Methods of Clinical Examination in EEG reported to the IV International Congress in 1957 (*Electroenceph. Clin. Neurophysiol.*, 1958, 10: 370–375). Two decades later, a committee was established on Standards of Clinical Practice in EEG and EMG. That committee presented a series of clinical recommendations adopted at the X International Congress in 1981. The report included five standards for EEG, one for evoked potentials, and three for EMG. The main committee was composed of O. Magnus (Chairman) J. Daube, S. Gomes Lins, I. Hausmanowa-Petrusewicz, F. Isch, D. Klass, St. Kubicki, J. Kugler, K. Mechelse, J. Payan, G. Scollo-Lavizzari, and E. Stålberg. In addition, expert advisors were invited to contribute to drafting certain clinical recommendations: C. Dreyfus-Brisac for neonatal EEG, A.J.R. Simons for cardiac and carotid surgery, G. E. Chatrian for cerebral death EEG, A.M. Halliday for evoked potentials, and A. Rosenfalck, P.R. Styles and R. Willison for EMG instrumentation. The nine particular clinical standards from the Magnus committee are on the topics of clinical EEG, neonatal EEG, intensive care unit EEG, EEG monitoring in cardiac and carotid surgery, EEG in suspected brain death, evoked potentials, clinical EMG, EMG instrumentation, and EMG terminology. Many basic rules for clinical recording and interpretation are set forth here. The neonatal EEG section sets forth the 12.5–25% system for neonatal EEG electrode placement. The EMG terminology section builds upon and superseded the previous 1969 EMG terminology report. Only the introductory section of the Magnus committee report was published in the journal (*Electroenceph. Clin. Neurophysiol.*, 1982, 53: 9–10). Most of the Magnus committee report was published originally in the 1983

Recommendations book. These reports constitute about one-half of that book. As with other sections of the book, these portions are still excellent teaching material for physician and technologist trainees even today.

In addition to the clinical, technical and terminology in EMG reports from the Magnus committee, the 1983 *Recommendations* book includes the EMG instrumentation and quantification as well. Two of these reports were presented to the VII and VIII International Congresses in 1969 and 1973 (*Electroenceph. Clin. Neurophysiol.*, 1970, 28: 399–433; 1974, 37: 532–534). Those two older reports by C. Guld, A. Rosenfalck and R.G. Willison were considered still valid and were reprinted in the *Recommendations* book.

One further EMG report was included, a report by the Committee on Quantification in EMG drafted by R.G. Willison (Chairman), I. Petersén, P. Pinelli, J.E. Desmedt, K. Kunze, R.G. Lee, I. Hausmanowa-Petrusewicz, F. Isch, and A. Arrigo. This EMG quantification report had been presented in 1981 to the X International Congress (*Electroenceph. Clin. Neurophysiol.*, 1982, 53: 12–14).

The book was widely used for many years as a practical handbook for clinical, technical and terminology standards in clinical neurophysiology. Publication as a soft-covered book helped to keep the price of the book moderate. This 1983 *Recommendations* book continued to be the standard reference until the next federation recommendations book was published 16 years later.

4. Practice committees

Practice Committees work on a variety of topics. This extended and updated work in the previous Fiscal Period by the Magnus and other committees. The work in this Fiscal Period included EEG committees on clinical practice, instrumentation standards, training, qualifications, and paediatric EEG terminology. In EMG, the work included methodology and quantitative analysis. The reports of these committees were endorsed

by the 1985 XI International Congress General Assembly. They were not published in book form, as had been done in the 1983 *Recommendations* book that compiled reports from the previous Fiscal Periods.

The Committee on Standards of Practice in EEG was charged with preparing statements on standards of practice for monitoring applications. Committee members were D.W. Klass (Chairman), B. Bergamasco, M. Biliard, A. Bricolo, R. Broughton, G.E. Chatrian, J.D. Frost, R.J. Gummit, Y. Hishikawa, J.R. Ives, J.W. Osselton, R. Porter, P.F. Prior, R.A.F. Pronk, and W. Storm van Leeuwen. This forward looking action evaluated areas that did indeed greatly expand over the next two decades: polysomnography, operating room monitoring, long-term monitoring for epilepsy, and intensive care monitoring. The committee report was intended to supplement the work of the previous Fiscal Period's Magnus committee, which covered more routine aspects of practice in EEG and EMG.

Four Standards of Practice in EEG subcommittees each coordinated efforts with other professional organizations and consulted individual experts outside the committee, who made exceptionally important contributions. The Committee's report to the XI International Congress provided information about the state of current methods and practice standards rather than defining a set of rules. The Committee noted that many of the techniques and practices described in the report were in rapid evolution. The report sounded a word of caution about monitoring, specifically that to conduct and interpret monitoring requires considerable special training and experience for proper use of many procedures and, in some cases, teams of experts are required. Careful consideration was needed to determine appropriate indications for monitoring, and to apply the more complex, difficult, and costly of these techniques.

The Committee on Training and Qualifications in EEG was appointed in 1977 to survey internationally about EEG training programs and to

propose minimal criteria for training and qualification of clinical electroencephalographers and EEG technologists. The committee was composed of C. Ajmone Marsan (Chairman), D. Batty, C. Bradshaw, M. Ebe, O. Eeg Olofsson, A.J. Gabor, J. Gaches, A.M. Ivanitsky, J. Kugler, G. Pampiglione, M. Turner, and R. Zappoli. They were charged evaluating with the quality of training and the qualifications necessary to become a clinical electroencephalographer in different Federation member countries. A parallel survey evaluated the training of EEG technologists. The committee obtained the requested information from 27 countries, but did not include the United Kingdom, Spain, France, Australia, or Israel. Based on the results obtained, the different countries clearly had great variability of standards for training and the competency examinations required to perform or interpret EEGs.

The legal designation of "clinical electroencephalographer" is accepted in only some countries. In some nations, the standards are at a much higher level. In some countries, subspecialties of clinical neurophysiology are recognized, such as differentiating those who are credentialed for the central testing of EEG and evoked potentials as opposed to others who are credentialed for peripheral and neuromuscular system testing. EMG and EEG are considered completely separate subspecialties in some countries with separate training programs. Given this situation, it seemed impractical for the IFSECN to develop standard training syllabi or examinations at this time. Some minimal EEG training standards were reported to the General Assembly. A questionnaire was distributed during the previous fiscal period. The work of the committee would be facilitated by dividing the committee into two work groups, one for each of the Eastern and Western hemispheres. C. Ajmone Marsan will serve as co-chairman of the Western and Elmqvist for the Eastern hemisphere.

The Committee on New Applications, Methods, and Quantitative Analysis of EMG originally was formed in 1977 and chaired by R.G.

Willison. A preliminary report was submitted to the X International Congress in 1981. The new expanded committee consisted of R.G. Lee (Chair), A. Arrigo, C.J. De Luca, J.E. Desmedt, P. Guiheneuc, I. Hausmanowa-Petrusewicz, M. Hayward, F. Isch, K. Kunze, L. Lindstrom, M. Meyer, I. Petersén, and H. Shimazu. Additional experts were consulted in electronics and engineering. The committee noted that many medical and non-medical specialists now use a wide variety of EMG techniques. The committee focused their efforts on certain techniques: methods for quantitative analysis of compound nerve and muscle action potentials in nerve conduction studies, quantitative studies of neuromuscular transmission disorders, and EMG studies of central motor disorders. The report consists of three main sections. The first section reviewed quantitative methods for traditional diagnostic EMG. Many such methods automate the measurements that previously were done by hand. They were developed to increase speed and accuracy of EMG used for diagnosis of neuromuscular disorders. The second section focused on new EMG techniques and special applications. This included such topics as EMG of ocular muscles, laryngeal muscles, and sphincter muscles as well as studies of aging, respiration, and muscle fatigue. The third section dealt with instrumentation and standardisation of equipment, particularly to interface with digital computers. The committee noted that, in this very rapidly developing area, any guidelines would need to change. There will be a meeting in Göteborg, Sweden, in 1982 to provide significant interaction between scientists, their engineering colleagues and local engineers. There will be practical demonstrations. The goal is to define methods of quantification of EMG so that practical information can be obtained.

The Committee on EEG Instrumentation Standards had submitted reports to previous International Congresses. Some were included in the 1983 *Recommendations* book. The committee continued in 1981–1985 and consisted of

H.W. Shipton (Chair), R. Cooper, G. Dumermuth, K. Ikeda, A.M. Ivanitsky, S. Métral, P. Rappelsberger, P. Seaba, and L.H. Van der Tweel. The Committee felt that it could not effectively standardize auxiliary apparatus such as visual stimulators and evoked potential equipment. International standards of such equipment are desirable. The committee recommends a working group be appointed to consider these techniques. The International electro-technical commission (IEC) is developing standards for electro-technical equipment which governments can use to make judgements about equipment orders, etc. These have proven to be in many instances stricter than the standards used by individual countries. Dr. Barlow has been a member of working group 62D that deals with electro-medical equipment. These include recommendations about EEG equipment. Dr. Barlow suggested that the Federation should be represented on the working group.

The Executive Committee appointed P. Seaba from Iowa City (an engineer with considerable EEG experience) as the Federation liaison to the Organisation Internationale de Métrologie Légale (OIML), an organization established by treaty among several countries including USA, USSR and France. That organisation is evaluating the Measuring Instruments Used in the Field of Public Health. P. Seaba explained to them the differences between EEG and ECG and the group's draft recommendations have been accordingly amended. Initially the OIML had assumed that EEG instrumentation could be treated as a type of ECG. P. Seaba submitted to OIML the relevant Federation standards. As a result the OIML Secretariat invited the IFSECN to become a Collaborating Organization. The Federation, through its liaison, participated in drafting a standard for electroencephalographs. The Secretariat subsequently sent the resulting draft to collaborating countries for review and comment. In 1985 the draft standard for electroencephalographs was submitted to the International Committee of Legal Metrology (CIML). Eventually these technical standards for

electroencephalographs became law in the many nations who were treaty signatories. The group subsequently considered standards for EMG equipment.

A Committee on Terminology in Paediatric EEG was charged with extending the previously published EEG Glossary to include more terms relevant for premature and neonatal patients. The existing glossary was short on terms used in those patients. The committee, chaired by C. Lombroso, continued to work on this project through the end of the Fiscal Period, and continued into the next. Eventually these terms would be included in an updated *Glossary of Terms Commonly Used by Clinical Electroencephalographers*.

5. Archives

In the preceding Fiscal Period, Otto Magnus (Chairman of the Committee on Standards of Clinical Practice of EEG and EMG) suggested that all the past documents published or filed relating to the history of the Federation should be collected and catalogued and archived preferably in London. This initial version of the archives could be the collection recently assembled by W. Cobb in preparation for his book *Wave Length: A History of the IFSECN*. Dr. Cobb reported the possibility to house the archives at the National Hospital at Queens Square without cost. That facility had no formal archivist. The Royal College of Physicians in Regent Park offered space to the EEG Society for their archives and the Federation might rent a portion of that space. A part-time archivist there might arrange and catalogue the Federation's materials in 1–2 years. The Montreal Neurological Institute was also considered. There was general agreement that the so far collected books, papers, photographs, etc. should not be thrown away, but no decision was made as to how they should be managed. The primary source material used for W. Cobb's book was eventually kept by one of the subsequent Executive Committee members. When contacted 25 years later, the material was

considered lost. This points to the need for the Federation to maintain a better archive for its primary source materials.

6. New policies

The change of the title of the Federation has been already discussed during previous Fiscal Periods because the EEG had an unrealistic priority. Titles like “Federation of Clinical and Experimental Neurophysiology” (Dutch Society) or “International Federation for Clinical Neurophysiology” (S.L. Visser) were rejected in Kyoto in 1981; also the proposal of “World Federation of EEG and Clinical Neurophysiology” (J. Desmedt) was not accepted. No action was taken until the next Fiscal Period.

The Executive Committee rescinded the previous policy of allowing the other editor to participate in the Executive Committee meetings; only the Editor-in-Chief would attend the Executive Committee meeting. The other editor could come only by invitation.

General principles of meeting support were reiterated and extended, based in part on prior Executive Committee decisions from 1971. Based on three classes of support for meetings, the Executive Committee agreed on the following language and rules:

1. “Organized by IFSECN in conjunction with [host society]”. This category pertains only to the quadrennial EEG and EMG congresses. Extensive financial support is provided and underwriting the costs is implied.
2. “Sponsored by the IFSECN”. This category pertains to meetings organized by others. A financial contribution to such a meeting will be a loan, which will be repaid first against any profits.
3. “Under the auspices of IFSECN”. This category pertains to meetings organized by others without financial obligation by IFSECN.

The Executive Committee rescinded the previous policy of allowing the other editor to attend the Executive Committee meetings, and now only

the Editor-in-Chief would attend the Executive Committee meeting. The other editor could come only by invitation.

The International Organisation of Societies for Electrophysiological Technology (OSET) wants to be involved in the IFSECN congresses. The Executive Committee agreed to strongly support involvement of technicians, in general ways, especially in respect to the congresses. OSET was inaugurated in 1977. The first contact between technologists and IFSECN was established during the Advanced Course, organized by Otto Magnus and Helmuth Petsche in Salzburg, Austria in 1965. At the VIII IFSECN Congress in Marseilles, 1973, the technologists organized their own programme with great success. Since then OSET held its meetings every 4 years, 1979 in Guildford (UK) and 1983 in Winnipeg (Canada). There was no provision for formal participation of the OSET in the London IFSECN congress in 1985.

The Executive Committee discussed the issue of two Member Societies of one country. In 1978 or earlier there apparently was a Bye-Law change that two societies could be brought in from the same country. The executive committee should discuss with the societies the possibility of their amalgamation. If impossible, a second society is admissible provided that its main sphere of interest differs from that of the first. No more than two national societies from any country can simultaneously be members of the Federation.

7. Finances

Income of the Federation increased more than expected during these 4 years. The journal royalties now account for one-third to one-half of the annual income. Both royalties and dues payments are now much greater than expected when the Fiscal Period budget was proposed 4 years earlier. The General Assembly in 1981 had accepted the proposal of the Treasurer to increase the annual dues from US \$3 to \$4 for each member of the Member Society (there had not been an increase

for 8 years). The repayment from the X ICEEGCN in Kyoto, 1981, also was greater than was foreseen.

Expenses of the Federation have also been greater than anticipated, due to increases in cost of living and transportation. Executive Committee expenses have increased modestly. The increase in expenditures was greater at the Editorial Offices, in part due to the increased throughput of manuscripts, publication of two books, and the initiation of the new evoked potential series. Travel and expenses for committee meetings tripled, corresponding to a greater use of committees for drafting standards and reports. The subsidies to the International Congresses also increased substantially, with some being loans and other expenses being grants. Overall, income nearly matched expenses with a net deficit of US \$20,979 over 4 years in a total budget of US \$900,000.

8. Gift committee

The Federation donated three sets of the *Handbook of Electroencephalography and Clinical Neurophysiology* to institutions in Turkey, People's Republic of China, and Thailand. Requests for donations of books and journal subscriptions were coordinated through the Gifts Committee. That committee was composed of R. Naquet (Chair), J.S. Chopra, G. Gonçalves e Silva, G. Rabending, and J. Stevens.

9. Permanent executive office

In 1983 the Executive Committee considered establishment of a permanent executive office with a professional executive secretary and/or treasurer. The growing workload, numerous detailed responsibilities, and need for continuity were cited as reasons. The executive office concept was discussed at this point but no clear action was taken. This concept would continue in discussion for the next two decades, leading

eventually to the establishment of such an office.

The office of secretary transitioned smoothly to Vancouver after the 12 years in Omaha under the stewardship of Robert Ellingson. Morton Low, as the new Federation Secretary, worked closely with Dr. Ellingson in his new role as President so as to preserve excellent continuity of functions.

10. Rules committee

As described in the Statutes, the Rules Committee constantly reviewed the Statutes and Bye-Laws and made any necessary recommendations for the amendments. That committee also resolves unclear issues in applying Federation rules and reviews the proposal for new national society members.

10.1. A history of the Statutes and Bye-Laws 1947–1985

The statutes have been forever a work in progress. The original constitution was accepted at the II International Congress in Paris in 1949 and was published in the EEG Journal in 1951. Minor amendments were made in 1953 and major changes were made at the V International Congress in Rome in 1961. At that time an EMG Commission initiated and Bye-Laws modifiable by the Council, rather than the General Assembly, were introduced. These new rules were published in the EEG Journal in 1962, Vol. 14. Further major revisions took place at the VI International Congress in Vienna, 1965, at which time the Executive Committee was enlarged by the addition of a Member-at-Large. The Rules Committee was changed from an *ad hoc* committee to standing committee. Bye-Laws for the conduct of the General Assembly and Council were promulgated and published in the EEG Journal in 1965–1966, Vols. 19 and 20. Minor changes to the Constitution again were made in 1969 and 1973, published

in the EEG Journal 1970 and 1974, Vols. 28 and 37. Following some small changes in 1977 the Constitution was last published at full version in the EEG Journal in 1979, Vol. 45, pp. 151–171. Those Statutes and Bye-Laws together with one change was made at the X International Congress in Kyoto in 1981, published in the 1983 *Practice Recommendations* book.

10.2. French registration and regulations

In this 1981–1985 Fiscal Period, the Rules Committee was composed of S.L. Visser (The Netherlands, Chairman), Haime Bogacz (Uruguay), William Kennedy (USA), Jerzy Majkowski (Poland), and Yasuo Shimazono (Japan).

There were continuing problems with the French legal registration. New French regulations require societies to meet for election of officers and register the elections with the local district within 3 months. For this purpose, new 1981 IFSECN registration documents were filed to indicate that Executive Committee officers were elected in June at an Executive Committee meeting in London as opposed to March 1981 in Kyoto, even though they were elected in stages over the preceding 18 months. New French regulations also require that all societies registered in France must have at least one French national on the Executive Committee, possibly as Treasurer. An attorney would be needed for consultation, since this would be incompatible with IFSECN standard procedures, possibly requiring a move of the Federation to a different site for registration or incorporation. Such discussions and consultations continued on and off in succeeding Executive Committees for the next two decades, ending eventually in the move to incorporate in Canada.

10.3. Balancing representation by geography and discipline

Membership of the Federation's Executive Committee should be representative and balanced

concerning geographical and disciplinary aspects. Several steps were taken toward more democratic management. It was noted that as the Federation has grown, the rules have not necessarily followed. Rules Committee member H. Bogacz proposed that the Executive Committee should have two Members-at-Large, instead of just one, so as to promote broader representation. The Executive Committee favoured this and added three conditions to favour broad representation and turnover. The General Assembly in 1985 adopted the following new rules: First, the Members-at-Large should serve only one term. Second, the nomination and election systems should be held in three stages: first the President; second the Secretary, Treasurer and EMG Commissioner; and last the two Members-at-Large. Third the two Members-at-Large must come from societies as yet unrepresented in the new Executive Committee. One Member-at-Large must be from each of the two recognized disciplines, EEG and EMG. A special election was held after the Congress in 1985 to fill the newly created second Member-at-Large position.

The general discussion about broad geographic representation has continued over decades, to try to expand representation to be as wide as possible without making the election process too cumbersome. The Nominations Committee was charged with trying to reach the best possible broad geographic balance and to restrict nominations that do not fulfil that goal.

10.4. Turnover in Executive Committee membership

The Executive Committee suggested encouraging turnover among the Members-at-Large to encourage greater representation over time. The Rules Committee suggested that other Executive Committee members also should serve only one term in the same office. Up to that time, officers could be re-elected many times. For example, Robert Ellingson as

Secretary and Max Dondey as Treasurer each were elected three times to the same office. The eventual agreement was that the Editor-in-Chief, Secretary, and Treasurer could serve two terms because of the importance and complexity of the work in those offices. The 1985 General Assembly endorsed the expansion of the Executive Committee to two members-at-large who may not be re-elected to the same position. They also restricted the Secretary and Treasurer to re-election only once.

10.5. Multinational member societies

The Federation is composed of national societies. In two cases, multinational societies have been members: the Latin American and the Australasian Societies. The Australasian Society once represented Australia, New Zealand, Indonesia, and the Philippines. In this term, a section of the Australian Neurological Society has replaced the Australasian Society. The Executive Committee accepted this change. The Federation encouraged New Zealand and other Asian countries' individual national societies to apply for membership. Eventually those other nations' clinical neurophysiologists did form national societies, which then joined the Federation as member societies.

The Latin American Society had discontinued paying dues for more than a decade and apparently had become inactive as a society. As a result of persistent failure to pay dues, and as specified in the Bye-Laws, the previous Executive Committee voted in 1978 that the Latin American Society was no longer in good standing and its participation would be suspended because of non-dues payment. In addition, several national societies from Latin America joined the Federation, raising an issue of double representation.

In 1985, when the Latin American Society still had not rectified the dues payment even after considerable attempts to contact for a decade, the Executive Committee voted to recommend

expulsion of the Latin American Society. When this matter was discussed at the 1985 General Assembly, Latin American neurophysiologist A. Mosovich reviewed the history of that society and its many achievements in promoting the development of clinical neurophysiology in the southern hemisphere. He acknowledged that the Society had indeed ceased to exist. President Robert Ellingson acknowledged those important roles played by the Latin American Society, the great contributions of individuals from Latin America to the field, and noted that the procedure for removal of a society from Federation membership is prescribed by Statute, and these rules had been followed with no intention of animosity. It was left to future Executive Committees to identify ways for Latin American clinical neurophysiologists to participate in the Federation, even for those in countries without a national society. This eventually led to the development of the Latin American IFCN Chapters a decade later.

10.6. Proportional representation in the General Assembly

The West German Society suggested that representation in the General Assembly should correspond to the number of regular members of each society. Over time, some societies have grown very large, whereas other remained quite small. Until this point, each society was allowed three representatives in the General Assembly. The proposal was that each society would have one, two or three representatives in the General Assembly in addition to their one Delegate, depending on the number of dues-paying members. The cut-off numbers were 100 and 400. Furthermore, other individuals had voting rights in the General Assembly. These were curtailed. After considerable debate, the rules' changes were approved to:

1. Eliminate the honorary presidents who are the past presidents of the Federation from voting rights in the General Assembly.

2. Eliminate members of the special commissions from voting rights during the General Assembly.
3. Eliminate members of the OCIC from voting rights in the General Assembly.
4. Reduce the representation of smaller societies.
5. Reduce the overall size of the General Assembly.

To keep the General Assembly involved as much as possible in the ongoing business of the Federation, suggestions were made to allow for meetings of that body at the EMG congresses as well as their regularly scheduled meetings at the quadrennial EEG congresses. No definitive decision was made. The General Assembly did agree that they could vote or conduct other business by mail whenever pressing issues made that desirable.

11. International congresses

The Executive Committee discussed whether to print congress announcements both in French and English. Another suggestion was to print a French summary. The second Kyoto announcement had been completely bilingual. For the then upcoming London ICEEGCN, at least the translation of essential sections of the announcement into French was required.

11.1. Seventh International Congress of EMG

The Seventh International Congress of EMG was held in Munich on October 9–13, 1983. The precedent 6 EMG Congresses had taken place in Pavia (1961), Copenhagen (1963), Glasgow (1967), Brussels (1971), Rochester, MN (1976), and Stockholm (1979). The Congress in Munich was organized by the Local Organizing Committee, which included A. Struppler (Convener), former Chairman of the EMG Commission, J. Dudel (Secretary), and H. Heintel (Treasurer) with the active participation of the German society as host. Representatives of the Federation in the Organizing Committee of International Congresses were

R. Ellingson (President), M. Dondey (Treasurer), J. Desmedt (Chairman of EMG Commission). The venue was the Technical University. Travel fellowships of US \$200 each were awarded to 40 attendees, mostly young investigators nominated by their national societies.

The EMG Congress was attended by 620 active members and its program included 5 symposia, workshop discussions, oral communications and poster presentations. The scientific level of the Congress was excellent and highly praised. The social program was outstanding with a welcome reception in the Antiquarium, an illustrious hall of fame in the Residential Palace of the former Wittelsbach Dynasty, an excursion to Andechs Monastery for an organ concert and a subsequent Bavarian rustic meal, and a Congress Banquette in the Hotel Bayerischer Hof.

The congress was a financial success. The EMG Commission, composed of J.E. Desmedt (Chair), H. Shimazu and Erik Stålberg during this Fiscal Period, brought forward a request by the German Society that some of the EMG Congress profits be used to support a symposium on motor control held in Germany in April 1985. This symposium was held in part to honour Professor A. Struppler, convener of the EMG Congress, who was nearing retirement. The symposium was attended by 70 scientists and included in-depth discussions of current issues in motor control.

The Executive Committee discussed Federation support of additional meetings. It was agreed that support could be given to individual meetings when approved by the Executive Committee, but these actions should not be taken as precedent. Decisions about disposition of surplus funds from congresses must be made on the individual merit of each case.

11.2. XI International Congress of EEG and Clinical Neurophysiology

The XI ICEEGCN was held in London in August 1985. The meeting took place on the week

immediately prior to the World Congress of Neurology in Hamburg. The Organizing Committee for the EEG Society of the United Kingdom consisted of A.M. Halliday, S. Butler, and R. Paul. Sir Bryan Matthews served as the Honorary President. The general organization was in the hands of a professional company. The first announcement cover page is reprinted in Appendix 11, Fig. 1.

The meeting site, the Barbican Centre, is a part of the historic City of London and close to St. Paul's Cathedral. Opened just 3 years earlier, this centre was built as a cultural focus for the area. It serves the community as a hub for theatre, symphony concerts and ballet and is close by many popular sites. The Barbican as a host site presented an interesting three-dimensional maze of rooms and corridors and provided many areas where meeting's participants could sit and visit. The congress was opened by Sir Andrew Huxley, O.M., President of the Royal Society. At the opening ceremony, Sir Bryan Matthews spoke about the early days of EEG and his work in collaboration with Lord Adrian to reproduce Berger's work on the human alpha rhythm. The host society displayed several historical pieces of equipment including early EEG machines and original equipment used by Dawson to record evoked potentials in the 1940s. A course of educational activity also was organized for the International Organization for Societies of EEG Technologists (OSET).

Fellowship grants were increased both in number and in amount to US \$300. The meeting was a scientific and educational success. Financial issues developed due to unexpected additional charges by the congress site, which took until the next Fiscal Period to eventually resolve.

Each registrant to the meeting received a complementary copy of W. Cobb's book *Wave Length, A History of the IFSECN*. That book is reprinted with minor editing for the first half of this book. Congress social events were organized to visit the Houses of Parliament, Westminster Abbey, Windsor, and other sites around London.

The congress was held immediately before the opening of the World Congress of Neurology and International Leagues Against Epilepsy meetings in nearby Hamburg, Federal Republic of Germany (FRG).

The 1985 General Assembly discussed the location for the next International Congress of EEG and Clinical Neurophysiology. Three countries submitted bids: Brazil, the Federal Republic of Germany, and India. The General Assembly held an extended discussion about the advantages and disadvantages of coordinating the IFSECN Congress with the next World Congress of Neurology, as had been the custom for the previous several Congresses. The World Congress of Neurology had bids from Brazil, India and three other countries, and the choice of sites will be made one week after this IFSECN General Assembly meeting. The General Assembly then voted to empower the Executive Committee to set on the location of the next Congress taking into consideration the World Congress of Neurology site. In a non-binding vote, the General Assembly favoured Brazil if other factors were not taken into consideration.

12. Nominations Committee

The Nominations Committee was composed of Robert Naquet (Chair), Teruo Okuma, J. Radermecker, and José Vásquez del Mercado. Nominations were held in three stages between May 1983 and summer 1984. The committee first held the election for President, followed by a second round for election of the Secretary, Treasurer, and Chairman of the EMG Commission. Finally, a third round was held for the one Executive Committee Member-at-large and two additional Members of the EMG Commission.

The Nominations Committee was charged with selecting the nominees for the ballot with the largest number of nominations from societies while adhering to the principles of broad geographic representation. The process was discussed at the 1985 General Assembly, where the

expressed sentiment was that the names of all persons who receive nominations, and who accept to stand, should appear on the election ballot. If needed, a runoff could be held among those with the largest number votes if no candidate received a majority in the initial balloting.

When these elections were held, the 1985 General Assembly had not yet met. It was at that 1985 meeting that the General Assembly established a second Member-at-large position. An election for that new position was held at the beginning of the next Fiscal Period.

The Executive Committee of the Fiscal Period 1985–1989 consisted of:

President	John E. Desmedt (Belgium)
Past President	Robert J. Ellingson (USA)
Secretary	Bram Ongerboer de Visser (The Netherlands)
Treasurer	Manuel Meyer (Switzerland)
Chairman of the EMG Commission	Stéphane Métral (France)
Member-at-Large EEG	Juhn Wada (Canada)
Member-at-Large EMG	Roberto Low (Brazil)
Editor-in-Chief	Hans van Duijn (The Netherlands)
