



**STANDARDS COORDINATING COMMITTEE 28
(NONIONIZING RADIATION)**

Approved Meeting Minutes

IEEE SCC-28

**Technical University of München
München Germany**

Saturday, June 10, 2000

1. Call to Order

Chairman J. Osepchuk called the meeting to order at 1:30 PM. The attendance sheet was circulated while each of the attendees introduced themselves. (See Attachment 1 for attendance list.)

2. Approval of the Agenda

Upon a motion by M. Ziskin, a second by M. Meltz, the agenda was approved unanimously without modification (see Attachment 2).

3. Minutes of the October 1999 Meeting

Meltz noted that many people in the audience were invited guests and asked the Chairman to explain the voting process for approval of the minutes or for any other issues that may require a voice vote. Osepchuk explained that only members of SCC-28 should participate on any of the voice votes. R. Cleveland pointed out that he was listed in the minutes as having attended the October meeting – he said he did not. There being no further corrections to the minutes, J. Bushberg moved to approve the minutes as amended. The motion was seconded by E. Adair and was approved unanimously.

4. IEEE Staff Liaison Report

D. Pribula briefly described her role as IEEE Staff Liaison to SCC-28. She pointed out that her main role is to ensure that IEEE procedures are followed and to act as a point of contact with the Standards Department to resolve issues, interpret rules, move SCC-28 documents into the system for balloting, etc. She then introduced Judy Gorman, Managing Director of IEEE Standards. Gorman gave a presentation of the history of

IEEE, its current international makeup, the role of the Standards Department, the vision of the Standards Department and how it is working with other standards developing organizations to harmonize international standards (see Attachment 3).

Gorman explained that while the IEEE is often perceived of as a US organization rather than an international society, of the 350,000 IEEE members about one third are from outside of North America representing 180 countries. She expects a 50% growth in international membership by 2003, and expects that by 2005 the IEEE would have more members from outside the US than from within. Gorman said that the IEEE is divided into a number of regions, e.g., the US, Canada, Europe, Asia, and South America, and is now in the process of establishing national standards committees in some of these regions, e.g., Canada, Japan, France, Sweden, and the UK. She briefly reviewed the history of the IEEE and how it evolved from a number of organizations – most recently (1960's) the combining of the Institute of Radio Engineers and the American Institute of Electrical Engineers. She pointed out that the first standard was published in 1890.

It was explained how IEEE Standards committees fall under the IEEE Standards Association (SA). The IEEE-SA has a 13-member Board of Governors and a 28-member Standards Board that oversee the process. The IEEE SA now has 5300 members from 80 countries. Gorman also explained that fees would have to be charged to members of balloting groups because the standards program can no longer be supported through the sale of standards. However, the issue of whether invited experts would be exempted is still open. She pointed out that the working groups and subcommittees are open to everyone without charge – although IEEE-SA membership is encouraged. IEEE-SA individual annual membership fee is \$ 10.00 or \$125 for non-IEEE members. Gorman explained that in recent years, a major goal of IEEE is globalization and noted that most standards in the field of information technology are IEEE/ISO standards. She explained that in the standards community, an international standard is considered one where each country has a vote. IEEE does not follow that rule, but their committees are international in scope and the standards are sold worldwide at a number of distribution points in different parts of the world. She mentioned the parallel interests of IEC, CENELEC and ICNIRP with those of IEEE SCC-28 and SCC-34. She encouraged SCC-28 to emphasize their global role and noted that IEEE follows the IEC/ISO style of publication. She added that one important goal of the Standards department is to have "IEEE/IEC" on a much larger number of standards. In concluding, she said that representatives on the Standards Board who are involved with the IEC (from Germany and from France) point out that they are particularly impressed by the openness and transparency of activities in the IEEE-SA.

G. Goldberg asked about the intent of having IEEE appear first on joint IEEE/IEC documents; Gorman responded that it does not matter whether IEEE or IEC appears first – the point is that that the time for globalization is now. In response to a question from D. Sliney, as to whether SCC-28 is the only IEEE standards committee that deals with safety and health, Gorman pointed out that the National Electrical Safety Code is also developed by IEEE committees. In concluding, Gorman emphasized the value of using the IEEE website, as it has considerable information that is not exclusively for IEEE members.

5. Secretary's Report.

R. Petersen reviewed the status report of all SCC-28 projects (see Attachment 4). He noted that the Project Authorization Requests (PARs) for the C95.1 and C95.3 revisions will have to be extended next year if the revisions have not been approved by the Standards Board. He said that this requires detailed information about schedules for meeting, timelines/milestones, etc. Petersen also reported that he discussed with members of the Standards Department the issue of having each of the project numbers of the SCC-28 standards assigned a C95 series number, rather than the sequential numbers now assigned. Thus the standard on electroexplosive devices would be C95.X instead of 1472; the 0-3 kHz standard would be C95.Y instead of 1555, etc. These changes require approval of a modified PAR for each project. It was decided that the PAR for the 0 – 3 kHz standard would be done first since it was the most recently approved PAR.

6. Chairman's Report

J. Osepchuk explained that the Standards Board and the SA Board of Governors are addressing the issue of the fee charged to non-IEEE SA members in order to participate in balloting. Formerly the board waived the fee for non-IEEE members on an individual basis. The fee requirement was a decision of the SA Board of Governors; many members of the Standards Board do not agree with this decision and tend to support waiving or considerably reducing the fee for invited experts.

Osepchuk briefly reviewed the history of the C95 standards and the structure and function of SCC-28 to benefit the invited guests attending the meeting from Sweden, Germany, Australia, Austria, France, Hungary, New Zealand, and other countries. He showed a sign that had been prepared in the 1880s "This room is equipped with Edison Electric Light," which warned the reader not to attempt to turn on with a match, there are no harmful health effects, etc. (See Attachment 5.) He stated that there are approximately 300 members and observers that participate in IEEE SCC-28 activities and pointed out that what is now SCC-28 was established in the 1959 as the USA Standards Institute Committee (USASI) C95 with Prof. Schwan its first chairman. USASI subsequently became the American National Standards Institute (ANSI). The first C95.1 standard was published in 1966. This two-page standard limited the incident power density at frequencies between 10 MHz and 100 GHz to 10 mW/cm^2 averaged over any six-minute period. Revisions were published in 1974, 1982 and 1991, each reflecting a better understanding of the science. The current standard, C95.1-1991, was reaffirmed in 1997. He paraphrased John Rankine's testimony before a congressional committee investigating claims about the safety of traffic radar. Rankine held up a copy of the C95 standard and explained that IEEE standards are "living documents" and, as such, are always being revised to reflect new information and a better understanding of the subject.

Osepchuk explained how the procedures for balloting, balance, interpretations and appeals ensure due process. He described the scopes of the various subcommittees. SC1 develops standards on measurement techniques and Instrumentation and computational methods for exposure assessment, SC 2 develops recommended practices and guides for RF warning symbols and for RF safety programs, SC3 and SC4 develop exposure criteria for 0 – 3 kHz and 3 kHz – 300 GHz, respectively. SC5 develops standards on RF interference with electro-explosive devices, e.g., blasting caps.

V. Anderson asked about the policy on safety factors and the precautionary principle. Specifically, he asked how could rational safety factors be determined without understanding the risk/benefit of a technology – of which there seems to be little information? Osepchuk explained that each subcommittee has to deal with these issues based on what is known at the time. He explained the differences between standards, recommended practices and guides, each having a lower supervisory authority than the one before. He noted how this was applied in SCC-28's response to a request from the Federal Inter Agency Committee (IAC) that is drafting a report to Congress as one of their last acts in the RAPID program. The request was for ideas about how and where communication about mitigation is desirable and reasonable. The response suggested that information based well-established and understood effects should be at the level of a standard – communication about speculative effects, e.g., discussions about precautionary actions that could be taken should be at the level of a lowest authority, i.e., a guide. Gorman noted that since IEEE has adopted the IEC/ISO style, consideration should be given to including such information in the informative annexes of standards or practices. G. Goldberg noted that such information could also be incorporated into a "Technical Specification."

Osepchuk briefly discussed the international mailing of invitations that was carried out to generate interest in SCC-28 activities and noted that many of the invitees are in fact here attending the meetings. He said that T. McManus, Chairman of the Membership Committee, invited a number of distinguished scientists. Osepchuk noted that following a suggestion of IEEE, the Executive Committee (EXCOM) is considering a name change for SCC-28 and SCC-34 to better reflect their international stature and scope. One possibility, he said, would be the International Conference on Electromagnetic Safety (or Standards – ICES). The formation of such an umbrella group would have to be approved by the IEEE-SA Standards Board. Osepchuk noted that the leadership of SCC-28 will be meeting with some members of ICNIRP the following day and that the SCC-28 EXCOM greatly appreciates this opportunity to help foster the goal of international harmonization.

7. Treasurer's Report.

A. Varanelli reported a current SCC-28 balance of \$6959.78 and approximately \$4000 revenues from this meeting – which should cover expenses. He also noted that the SCC-28 website is on line and the address is in the brochures that were passed out. He said that he would set up the appropriate subcommittee reflector sites as soon as the subcommittees provide e-mail address lists for their members.

8. Membership Committee Report

T. McManus welcomed two new committee members, Michel Israel (Bulgaria) and John Tattersall (UK). McManus said that his major activity has been to recruit new members to obtain better balance on the committee. He said that he wrote to a number of people – many of who are attending this meeting – and he will send a follow-up letter to each describing SCC-28, its activities and issues in which they may have interest. Information on how to join SCC-28 will be included. .

9. International Liaison Committee Report

M. Murphy reviewed the SCC-28 International Outreach Campaign (see Attachment 6). He asked for comments on the new IEEE SCC-28 brochure that was produced by him and the members of EXCOM. He also thanked Tom McManus for his efforts at mailing out invitations to the Munich meeting to the many international contacts. He briefly reviewed the new membership structure of ICNIRP and discussed recent standards harmonization meetings that were held in Erice and Kyoto. He then reviewed some of the upcoming meetings beginning with the WHO EMF Project International Advisory Committee meeting on June 19-20 in Geneva. He said that there would also be a meeting on cellular mechanisms from September 24th to October 3rd in Yerevan, Armenia – and added that this particular meeting would be more of a tutorial. He said that he was not certain of the status of the Millennium Workshop on bioeffects of EMF scheduled for October 17-20 in Crete. He then noted the following future meetings: the Third International Conference on Bioelectromagnetism, scheduled for October 18-19 in Bled, Slovenia; the WHO EMF Fields and Biological Effects Meeting scheduled to be held in Xian, China on October 23-25; the WHO Research Coordination Meeting, scheduled to be held in San Antonio on November 13th along with a dosimetry workshop and tour of the Brooks Air Force Base laboratories on November 14th, a WHO Standards harmonization meeting on November 15th, and meetings of SCC-28 on November 17-19.

Tom McManus presented an overview of how different countries in the EU were dealing with the precautionary principle and the EU Recommendation to base country exposure limits on the ICNIRP guidelines. In Austria, there were serious concerns about trying to comply with precautionary principle but not with the ICNIRP limits since most phone masts already comply. M. Schüller reported that a local health official in Salzburg has recommended limits much lower than ICNIRP. If the Austrian government adopts this approach, the lower limits will become countrywide. McManus continued: Denmark – no action planned at this point. Finland has drafted new guidelines this year that are based on ICNIRP. He noted that industry was involved in their development.

McManus said that the French Ministry did not see any problem with the recommendation but saw no need to adopt it into French Law. It would be implemented through CENELEC and IEC documents for the short-term. German authorities have yet to prepare a response. He said that the German government is not enthusiastic about the precautionary principle; the ministry for the environment was soon to meet to discuss exposure limits and will more than likely adopt the ICNIRP guidelines. The Department of Health in Ireland planned to adopt the EU Recommendation into national law; the EPA was to take over non-ionizing radiation. Italy considered the EU Recommendation inadequate and proposed an EMF decree on 12 December. This, however, is encountering opposition because of concerns about cost and feasibility of complying with the 0.2 μ T maximum and 0.5 μ T daily average exposure limits for the magnetic field at 50 Hz. In the Netherlands, the Health Council (HC) of the Netherlands normally publishes guidelines. The Health Minister requested that the HC publish updates to the 1997 recommendations that would include cell-phones and the precautionary principle. McManus said that recommendations on low frequency fields were published by the HC in March and that the report is excellent.

McManus pointed out that Norway is not an EU member state, but typically tried to follow EU thinking. In 1997, legislation was passed to allow local governments to set up exclusion zones but information was not included to explain how the exclusion distances should be determined. He noted that typically, the magnetic flux density at the edge of these zones would be limited to 0.2 – 0.3 μ T. He said that Sweden was unlikely to implement the EU Recommendation entirely – the results of a major literature review is

due this summer. Switzerland adopted the ICNIRP guidelines for all non-sensitive areas and much lower values elsewhere, e.g., one one-hundredth of the ICNIRP limit is being applied to cellular installations in Switzerland. McManus reported that the UK is considering a cost-benefit analysis of application the precautionary principle in accordance with the Stewart Group recommendations. He said that he could provide contacts for obtaining the Dutch and Swiss documents.

McManus explained that CENELEC has established a number of working groups for developing vertical standards on many types of equipment, including welding units. He also mentioned a useful booklet on the EM fields prepared by the WHO Regional Office for Europe in Copenhagen and noted that there are many fact sheets on the WHO website, including one on radars and human health. He noted that there is a report in Ireland that discusses compliance with NIR emission limits. M. Schüller pointed out that the German Regulatory Authorities for Telecommunications and Posts began collecting data in 1992 and now have compliance data for 1992, 1996 and 2000 on their website – <http://www.regtp.de/>. M. Meltz asked if there were similar EU recommendations to limit the carcinogens in tobacco smoke. McManus replied that there were not noting that this is what is so frustrating – there is no EU recommendation for tobacco smoke where the evidence of harm is clear but there is for exposure to electromagnetic energy where there is no convincing evidence of harm at exposure levels below contemporary limits. He said that with regard to EMF, the decisions are political decisions from elected officials yielding to pressure. M. Ziskin asked rhetorically about how the EU member countries are viewing the precautionary principle and warned that if adopted, every environmental scare of the week will lead to mandatory restrictions and warnings.

10. Subcommittee Reports

- a) **SC-1 (Techniques, Procedures, Instrumentation and Computation).** Petersen reported that the revision of C95.3-1991 is now being balloted by SC-1. The closing date for this ballot is June 30, 2000. Attempts will be made to reconcile any negative ballots and any unresolved negative ballots will be circulated to allow members of the balloting group to comment or reaffirm or change their vote. He expects to submit the SC-1 approved draft to the IEEE Standards Department for ballot before the end of this year.
- b) **SC-2 (Terminology, Units of Measurements and Hazard Communication).** No report. Osepchuk noted that IEEE C95.2 (RF warning symbols) was approved last year. He also noted that the document includes icons and warning signs and wording to address RF burns and contact current. The RF safety practice document is in rough draft and a PAR extension has been submitted requesting a two-year extension for the project. J. D'Andrea reported that the US Department of Defense Instruction contains the new warning signs/symbols found in the C95.2-1999 document.
- c) **SC-3 (Safety Levels with Respect to Human Exposure, 0-3 kHz).** K. Jaffa reported on the SC-3 meeting held during the morning. He said that most of the meeting was devoted to discussions of J. P. Reilly's proposal for exposure limits at frequencies below 3 kHz. He also noted that a working group was established to address the issue of long-term effects. He is hoping for a ballot this fall. Osepchuk reminded Jaffa to be sure that SC-3 and SC-4 communicate since both have a common interest at 3 kHz.

d) SC-4 (Safety Levels with Respect to Human Exposure, 3 kHz-300 GHz).

C.K. Chou reported that SC-4 met on June 9th. He said that more than a dozen members from countries other than the US and Canada attended. The literature evaluation is a large task (1378 papers are included in current list of citations) and is behind schedule. He asked for more volunteers for the review effort. He noted that although the 1991 standard was published in 1999 with a number of changes, the 1999 edition and the 1991 edition have the same MPEs. He reported that the Revision Working Group met in March and that there was general consensus that only thermal effects have been established above 100 kHz. The working group is also trying to resolve some inconsistencies in the exposure metrics in the present standard. He said that the working group would meet in Washington on September 7-8, 2000 and he expects about 40 people to participate. SC-4 will meet again in San Antonio in November during the WHO/ICNIRP/IEEE meetings. Chou reported that E. Adair gave a presentation on thermoregulation and M. Meltz spoke on local SAR limits at yesterday's meeting. He said the proposal to consider the pinna as an extremity subject to the same peak spatial-average SAR limits as the other extremities, such as the hands, feet, ankles, etc. was also discussed. He said that Adair is drafting a biological rationale for including the pinna as an extremity subject to the higher SAR limits. He said that a motion to release the literature evaluations before completion of the revision was also discussed. He concluded by noting that SC-4 decided to distribute a draft revision of C95.1-1991 prepared by Bob Ashley to SC4 members for information.

J. Gorman offered to help locate a meeting facility in Washington for the Revision Working Group to meet in September. She also pointed out that perhaps IEEE could help in some way with the literature evaluation.

e) SC-5 (Safety Levels with Respect to Electro-Explosive Devices). J. DeFrank reported that the draft recommended practice on electro-explosive devices was balloted by SCC-28. The scope of the document was narrowed before balloting to include only blasting caps but will be broadened to include other electro-explosive devices in future documents. There were two negative ballots and the subcommittee is now in the process of making the necessary revisions to reconcile these ballots. They are also addressing errors that were pointed out by members of the balloting group as well as others who commented on the draft during balloting. DeFrank said that he and Co-chair Koban expect to have the revised draft ready for re-circulation by the end of this summer. In response to a question from Osepchuk, DeFrank noted that this recommended practice and a document being prepared by the Institute of Explosive Manufacturers are both based on an earlier ANSI draft standard.

11. New Business

M. Swicord, as the new editor, offered to cover information about SCC-28 activities in the BEMS Newsletter.

12. Future Meetings

Osepchuk reminded everyone that the next SCC-28 meetings would be held in San Antonio, Texas, November 17-19, following the WHO meetings. Tentatively, SC-3 and

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SC-4 will meet on Saturday the 18th and SCC-28 will meet on Sunday the 19th. The other subcommittees will meet on Friday, as necessary. He pointed out that the exact schedule is subject to change.

13. Adjourn

There being no further business, J. D'Andrea moved to adjourn the meeting. The motion was seconded by A. Varanelli and approved unanimously. The meeting adjourned at

SCC-28 Meeting,

**Technical University of München
München, Germany**

Saturday, 10 June, 2000

Attachments

1. Attendance List
2. Draft Agenda
3. Copy of Overheads – IEEE Presentation
4. SCC-28 Status Report
5. Copy of Overheads – Chairman's Report
6. Copy of Overheads – International Liaison Committee Report



**STANDARDS COORDINATING COMMITTEE 28
(NONIONIZING RADIATION)**

SCC-28 Meeting,

**Technical University of München
München, Germany**

Saturday, 10 June, 2000

Attendance List

Name	Affiliation	Country	Status
1. Adair, Eleanor	USAF	US	M
2. Anderson, Vitas	Telstra	Australia	O
3. Baron, David	Holiday Ind	US	O
4. Black, David	Inst of Occ & Env Med	NZ	O
5. Blick, Dennis	Veridian	US	O
6. Bodermann, Ralf	Siemens	Germany	O
7. Bourdages, Michel	Ontario Hydro	Canada	O
8. Bushberg, Jerrold	U of CA, Davis	US	M
9. Chadwick, Philip	Department of Health	UK	O
10. Chou, C. K.	Motorola	US	M
11. Cleveland, Robert	FCC	US	M
12. Collins, J	British Telecom	UK	O
13. Coray, Robert	Department of Communications	Switzerland	O
14. D'Andrea, John	Naval Health Research Det	US	M
15. Daly, James	BICC General	US	M
16. DeFrank, John	US Army CHPPM	US	O
17. Gardner, Robert	Ministry of Defence	UK	M
18. Gettman, Ken	NEMA	US	O
19. Gibney, Kelly	BC Hydro	Canada	O
20. Goldberg, Georges	IEC ACES	Switzerland	O
21. Haes, Donald	MIT	US	M

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Name	Affiliation	Country	Status
22. Healer, Janet	US NTIA	US	O
23. Jaffa, Kent	PacifiCorp	US	M
24. Johnston, Sheila	Neuroscience Consulting	UK	O
25. Joyner, Ken	Motorola	Australia	M
26. Kazuhiko, Chikamoto	Japan NUS Co., Ltd	Japan	O
27. Lang, Sakari,	Nokia	Finland	O
28. Mason, Patrick	USAF/AFRL/HEDR	US	O
29. McManus, Tom	Dept Public Enterprise	Ireland	M
30. Meltz, Martin	University of Texas	US	M
31. Mercer, Christopher	Vodacom	South Africa	O
32. Murphy, Michael	USAF AFRL/HEDR	US	M
33. Ohkubo, Chiyoji	National Institute of Public Health	Japan	O
34. Osepchuk, John	Full Spectrum Consulting	US	M
35. Owen, Russel	US Food and Drug Admin/CDRH	US	M
36. Pakhomov, Andrei	McKesson Bio Services	US	M
37. Petersen, Ronald	Bell Labs/Lucent Technologies	US	M
38. Puranen, Lauri	Rad and Nuclear Safety Authority	Finland	O
39. Reilly, J. Patrick	Metatec Assoc	US	M
40. Santomaa, Veli	Nokia	Finland	M
41. Schüller, Michael	Mannesmann Mobilfunk	Germany	O
42. Sirugo, Jon	Southern CA G&E	US	M
43. Sliney, David	US Army CHPPM	US	O
44. Sutton, Carl	VA Med Center	US	M
45. Swicord, Mays	Motorola	US	M
46. Szabo, Lazio	Former ICNIRP Member	Hungary	O
47. Thansandote, Art	Health Canada	Canada	O
48. Utteridge, Tammy	Inst of Med and Veterinary Science	S. Australia	O
49. van Rongen, Eric	Health Council of the Netherlands	Holland	O
50. Varanelli, Arthur	Raytheon	US	M
51. Vecchia	Nat'l Inst of Health	Italy	O
52. Watanabe, So-ichi	Min. of Posts and Telecomm	Japan	O
53. Ziskin, Marvin	Temple University	US	M

M = Member; O = Observer



STANDARDS COORDINATING COMMITTEE 28 (NONIONIZING RADIATION)

TENTATIVE AGENDA

SCC-28 Main Committee

Technical University of Germany
Munich, Germany
North Building – Room 1080
June 10, 2000 — 1:00 – 5:00 PM

- | | |
|---|-------------------------|
| 1. Call to Order | <i>Osepchuk</i> |
| 2. Approval of Agenda | <i>Osepchuk</i> |
| 3. Approval of October 19, 1999 Meeting Minutes | <i>Petersen</i> |
| 4. Staff Liaison Report | <i>Pribula / Gorman</i> |
| 5. Executive Secretary's Report | <i>Petersen</i> |
| 6. Chairman's Report | <i>Osepchuk</i> |
| 7. Treasurer's Report | <i>Varanelli</i> |
| 8. Membership Committee Report | <i>McManus</i> |
| 9. International Liaison Committee Report | <i>Murphy</i> |
| 10. Fundraising Campaign | <i>Osepchuk</i> |
| 11. Subcommittee Reports | |
| SC-1 | <i>Bassen</i> |
| SC-2 | <i>Tell</i> |
| SC-3 | <i>Jaffa</i> |
| SC-4 | <i>Chou – D'Andrea</i> |
| SC-5 | <i>DeFrank – Koban</i> |
| 12. New Business | <i>Osepchuk</i> |
| 13. Plans for Future Meetings | |
| <i>Osepchuk</i> | |
| 14. Adjournment | |

IEEE
and the
IEEE Standards Association

Presented to IEEE Standards Coordinating
Committee 28
(Non-Ionizing Radiation)

**Judith Gorman, Managing Director,
IEEE Standards
10 June 2000
München**



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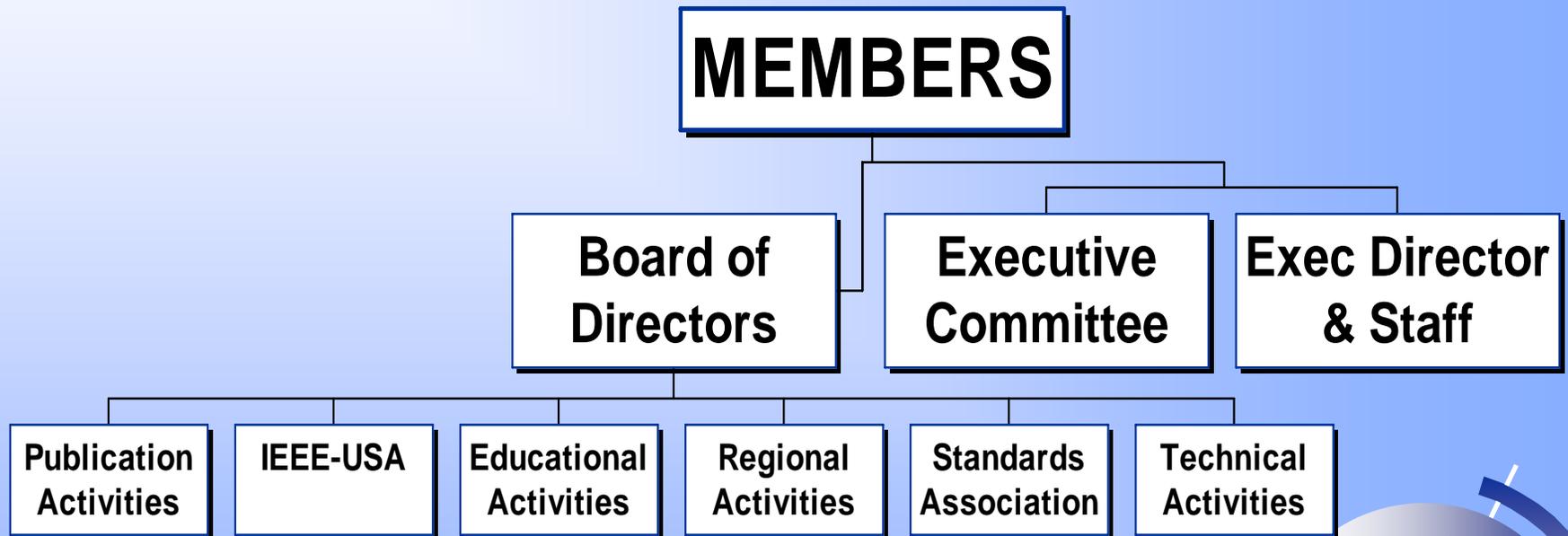


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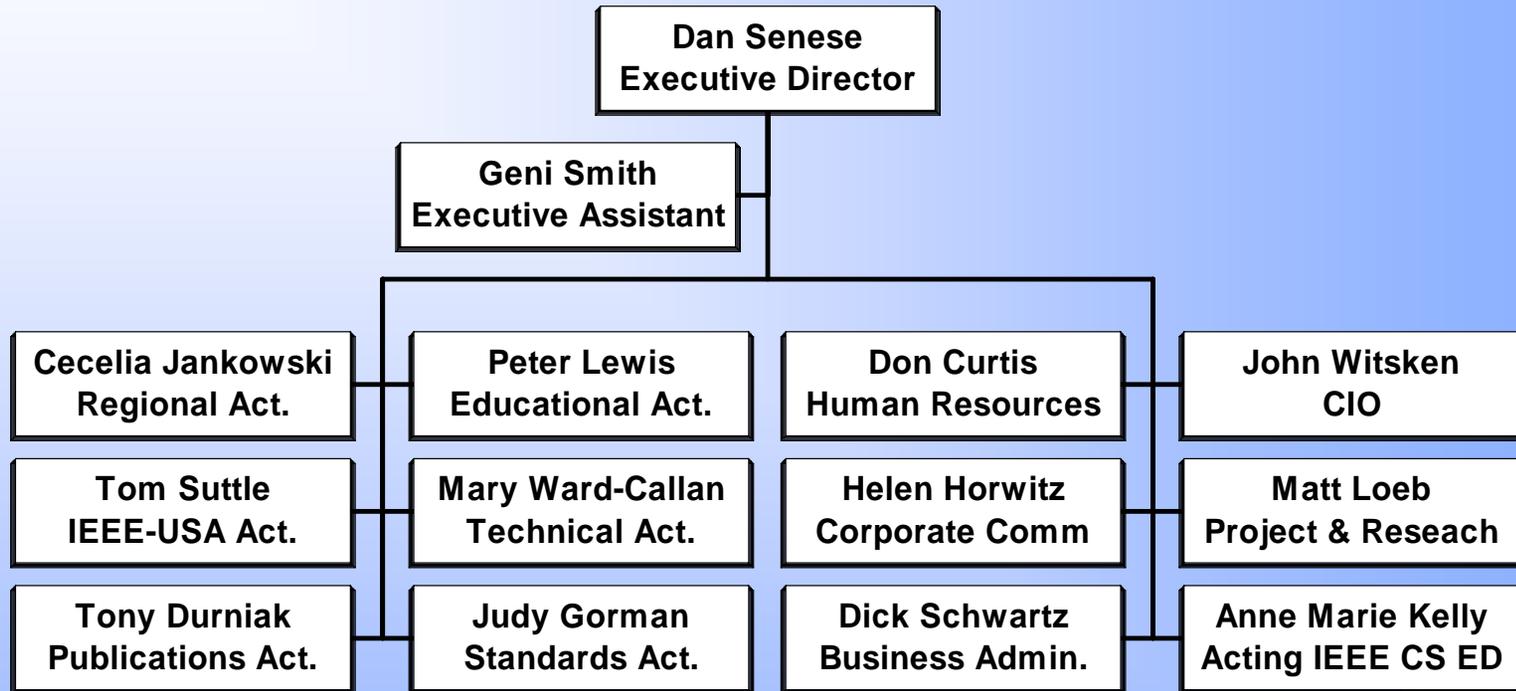
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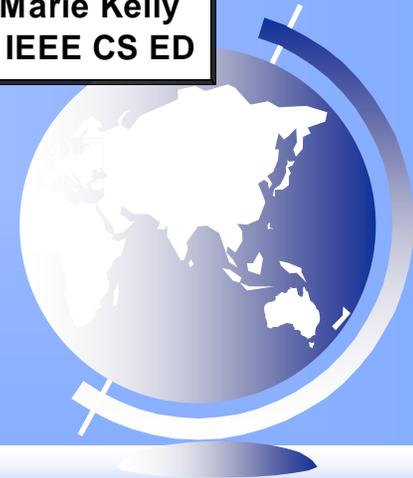
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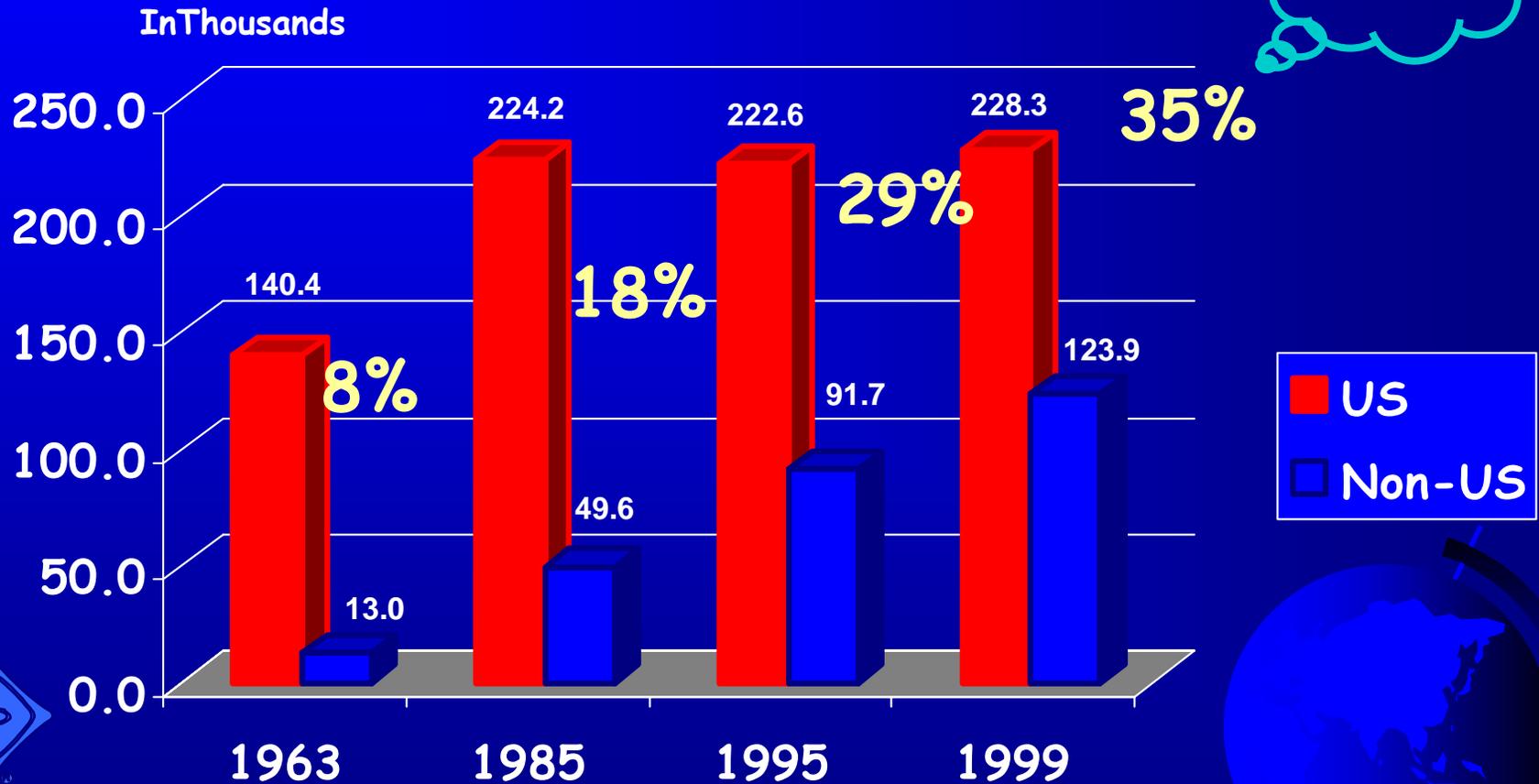
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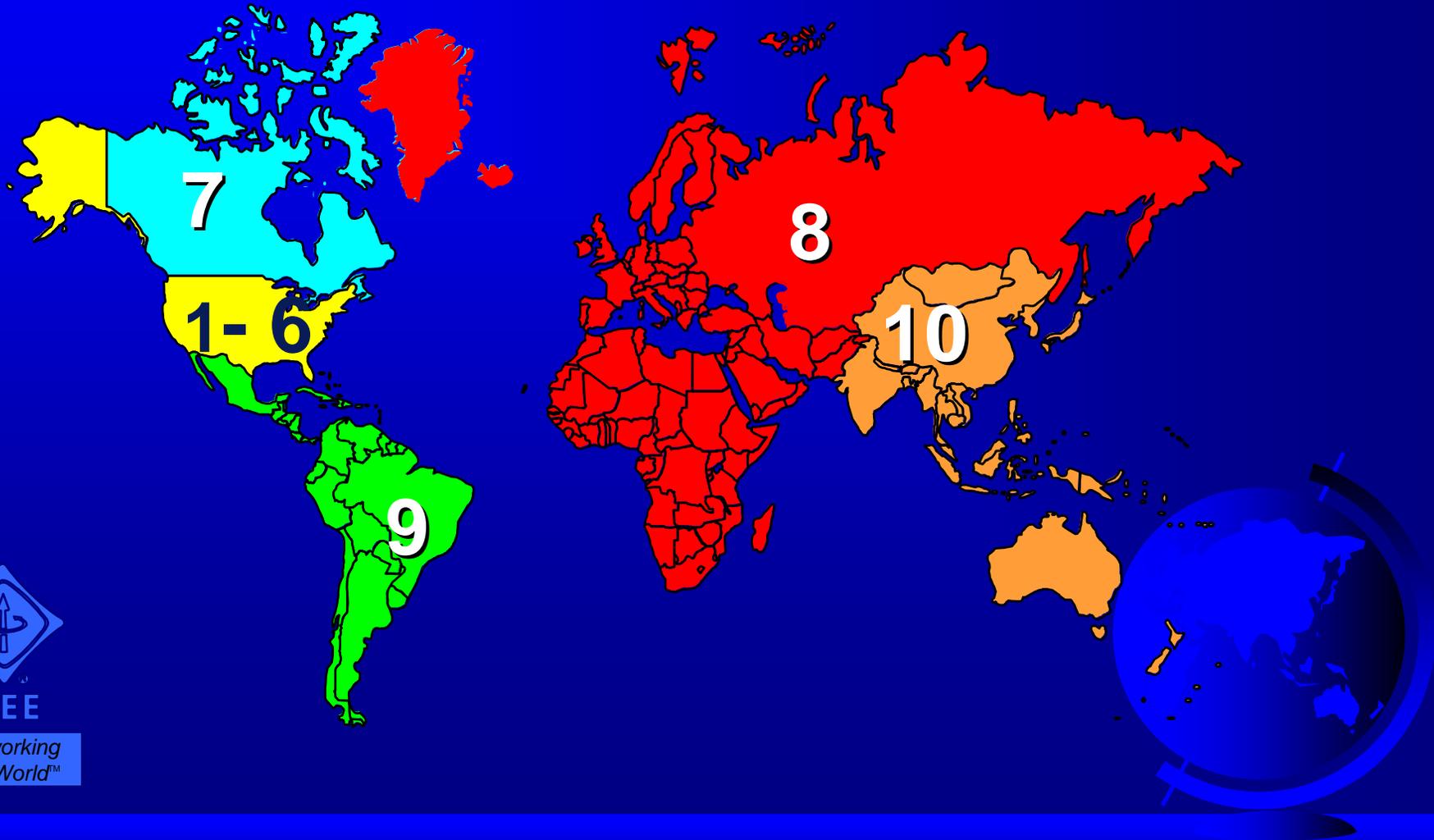


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110 years...

- ◆ 1890 Established the Henry—practical unit of self-induction
- ◆ 1898 First dedicated effort toward standardization of electrotechnology in US
- ◆ 1912 Institute of Radio Engineers formed its first standards committee
- ◆ 1958 Joint Standards Committee of AIEE and IRE
- ◆ 1963 Merger of AIEE and the IRE
- ◆ 1973 Establishment of the IEEE Standards Board
- ◆ 1998 IEEE Standards Association
- ◆ 1999 IEEE Industry Standards and Technology Organization



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IEEE Standards Association: Why?

- ☞ Created in January 1998
- ☞ To keep pace with the changing environment
 - Need to compete in a global marketplace
 - Required fast-track processes in the IT industry
 - Rapidly emerging technologies
 - Proliferation of consortia
 - Decentralization of the power industry
 - Erratic and decreasing industry support
 - Increasing dependence on standards for business strategy

☞ To enable IEEE to offer standards programs beyond the traditional processes



IEEE of active standards developers

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Infrastructure

- **13-member Board of Governors**
 - ◆ business strategy, finance, and policy matters
 - ◆ forward-looking and visionary
- **26-member Standards Board**
 - ◆ initiation, approval, and adjudication of the consensus process
- **A formal voting membership**
 - ◆ assure SA responsiveness to its members
- ***IEEE Industry Standards and Technology Organization: an affiliated organization***



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Membership

☞ Today's statistics

- ◆ 5300 individual members in 80 countries
- ◆ fastest growth is outside of North America
- ◆ 22 corporate members



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Corporate Members

Arista Knowledge Systems Inc.

Asahi Glass Co., Ltd.

Broadcom Corporation

Canadian Electricity Association

Chunghwa Telecom Co., Ltd.

Component Management Group

Defense Information Standards Agency

Element K

Force Computers

IBM Corporation

IEEE Industry Standards and Technology

Organization



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Corporate Members

Instituto de Ensino Superior COC

IOI Technology Corporation

Lucent Technologies

Mitel Corporation

NeoSilicon

Siemens AG

Tanning Technology Corporation

Tata Consultancy Services

THATHI Sistema de Educacao e Comunicacao

Thermon Manufacturing Company

Unisys Corporation



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Professional Staff

- Business Development
- Communications
- Electronic Services
- Finance
- Membership
- Process Management
- Product Management
- Publishing
- Technical Program
 - ◆ Committee Services
 - ◆ Standards Process (e.g., balloting)
 - ◆ Board Support



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Today's Strategic Initiatives

➤ Globalization

- Outreach to IEEE Societies
- New products & services
- Membership development
 - ◆ individual and corporate



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Globalization Mission

Proactively solicit recognition - from IEEE members and customers and from external organizations - of IEEE as an international standards developer



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Strategies

Parallel, multiple approaches

- 1) Recognition of IEEE contribution by international standards organizations
 - Adding other sets of initials to our standards when appropriate
- 2) Guidance to IEEE standards-writing committees
- 3) Clarifying national, regional, and international affiliations and relationships
- 4) Maximizing our global presence



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Globalization

➔ Strategy maps to breadth of IEEE's technical scope

- ◆ IT standards have recognition and use as international standards
- ◆ power standards have the use but not the recognition: goal is to increase recognition



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#1 Recognition of IEEE contribution by international standards organizations

IEEE standard forms basis for:

- ◆ IEC 10000
- ◆ Then aim for
IEEE/IEC 10000!



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*#2 Guidance to IEEE standards-writing committees**

- Work with IEEE Societies and our SCCs to provide direction
 - promote international profile of committees
 - identify parallel IEEE/XXX activities
- Facilitate formal relationships
 - committee to committee
 - organization to organization
- ✓ **Aim for IEEE and XXX to agree on content for one international standard*



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#3 Maximizing our global presence

- ◆ Use IEEE Country Geographical Units as IEEE standards focal points
 - IEEE Canada Standards Committee!
 - Identified key areas of IEEE standardization that Canadians want to promote internationally
 - Research underway to find IEEE standards that fill international “gaps”
 - <http://standards.ieee.org/sa/icsc/index.html>
 - Japan, France, Sweden, UK
- ◆ Broad spectrum of distribution channels



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#4 Clarifying national, regional, and international affiliations and relationships

- ☞ Define SCC28 role and positioning:
 - ◆ IEC
 - ◆ CENELEC
 - ◆ ICNERP, etc.
- ☞ Use national committee structure as appropriate



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Opportunities for IEEE SCC 28

*With the complete support of the
IEEE-SA:*

- Global harmonization
- Category D Liaison with IEC TC 106
- Encourage broad global participation
 - ◆ self-declaration
- Maintain openness and transparency



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Conclusion

☞ IEEE-SA is eager to support your efforts

☞ Key contact information:

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