

IEEE Standards Coordinating Committee 14

Quantities, Units, and Letter Symbols

Annual Report for 2011

1. Scope

SCC14 studies questions regarding quantities, units, and systems of measurement, with particular emphasis on the International System of Units (SI), and it prepares recommendations and standards on those matters. It is responsible for providing current information on quantities and units to all organizations preparing IEEE standards, and for assisting all IEEE organizational units, as requested, in implementing IEEE Policy 9.16, Metric Policy.

It is also responsible for the development of standards in the areas of metric practice and letter symbols, for ensuring consistency in these areas in standards that are issued by IEEE, and for providing current information on letter symbols and metric practice to all organizations preparing IEEE standards.

SCC14 works with the committees responsible for generating IEEE standards to help them meet the requirements of the Standards Board Implementation Plan for IEEE Policy 9.16. As part of the coordination process, it reviews requests for individual exceptions and reports its recommendations to the Standards Board.

2. Membership

The membership roster for SCC14 is attached.

Standards are prepared and maintained in the following six sub-committees, which are responsible for standards as indicated:

- 14.1 Metric Practice (Std 945; IEEE/ASTM SI 10)
- 14.2 Definitions (Std 270)
- 14.3 Unit Symbols (Std 260.1, Std 1541)
- 14.4 Quantity Symbols, electrical science and engineering (Std 280)
- 14.5 Quantity Symbols, acoustics (Std 260.4)
- 14.6 Mathematical Symbols (Std 260.3)

There are also three subcommittees that focus on coordination with other organizations:

14-Int Coordinates with IEC and ISO on matters of mutual interest; supports the U.S. Technical Advisory Committee for IEC TC 25 and the U.S. Advisory Group to ISO/TC 12

14-Rev Reviews proposed IEEE standards and submits comments as part of the mandatory SCC14 coordination before they are submitted to RevCom

14-Leg Follows proposed legislative and regulatory actions that affect metrication, both nationally and internationally

3. Activity Report

Objectives and Goals for 2010/11

SCC14.1: Working with ASTM, revision of IEEE/ASTM SI 10. *Performance: Completed. Standard revision accepted 2010 December and published 2011 March.*

SCC14.2: Revise or reaffirm IEEE Std 270-2006. *Performance: Working Group formed; decision was made to seek reaffirmation which will be initiated in the Fall of 2011.*

SCC14.6: Determine whether to revise or reaffirm, or whether to withdraw this as superseded by the P80000 series and take appropriate action. *Performance: Working Group formed; decision was made to seek reaffirmation which will be initiated in the Fall of 2011.*

SCC14-Rev: Reestablish routine and full SCC14 coordination activity by the end of 2010. *Performance: Dr. Bruce Barrow is working toward resumption of these duties.*

SCC14-Int: Develop proposed “Modified” versions of ISO 80000-3 and 80000-4 for adoption as IEEE standards. *Performance: In progress; first round for comments within SCC14 were circulated at the April 2011 meeting. Work continues.*

Objectives and Goals for 2011/12

SCC14.2: Initiate process to reaffirm IEEE Std 270-2006. *Performance: Dr. Gordon Aubrecht is chairing the Working Group for this and will initiate the process in September of 2011.*

SCC14.6: Initiate process to reaffirm IEEE Std 260.3. *Performance: Dr. Gordon Aubrecht is chairing the Working Group for this and will initiate the process in September of 2011.*

SCC14-Rev: Reestablish routine and full SCC14 coordination activity by the end of 2010. *Performance: Dr. Bruce Barrow is working toward resumption of these duties.*

SCC14-Int: Develop proposed “Modified” versions of ISO 80000-3 and 80000-4 for adoption as IEEE standards. *Performance: In progress; first round for comments within SCC14 were circulated at the April 2011 meeting. Work continues with these and the remaining portions of the ISO/IEC 80000 series. We are also keeping an eye on the ISO/IEC 80003 series, “Physiological quantities and their units”, as a candidate for future adoption (with adaptation) by IEEE.*

IEEE Staff Support Requirements

Michael Kipness provides administrative support to ensure that SCC14 standards development work conforms with approved IEEE standards practice, and serves as staff liaison between the Standards Board and SCC14.

Don Messina is principal liaison concerning standards publication.

Sue Vogel provides staff liaison with ASTM as required by the joint sponsorship of IEEE/ASTM SI 10.

Summary of Other Activities

SCC14 continues to maintain its close liaison with its counterparts in ISO and IEC. The US Technical Advisor for TC 25 and representative on ISO TC 12 (Dr. Thompson, NIST), and the US Technical Advisor for IEC/TC 1 (Prof. Showers) are members of SCC14. Dr. Thompson is also a member of the Consultative Committee on Units of the General Conference of Weights and Measures. Work is in progress for NIST to underwrite a grant to be administered by IEEE in order to have Mr. James R. Frysinger lead the U.S. TAG for ISO TC12/IEC TC 25 for the next five years.

Mr. James R. Frysinger has been appointed as Deputy Technical Advisor for the U.S. Technical Advisory Groups to ISO/TC 12 and to IEC/TC 25, and as “Expert” to all working groups within the latter. He attended the 74th General Assembly of IEC in Seattle WA with Dr. Ambler Thompson in October of 2010. He attended joint working group meetings of ISO/TC 12 and IEC/TC 25 and a working group meeting of IEC/TC 1 (on the International Electrotechnical Vocabulary) in Kista (Stockholm) SE in June of 2011. He might be attending meetings similar to those in Kista in Reinheim DE in September of 2011.

James R. Frysinger, Chair of SCC14, maintains two websites for the committee -- (<http://grouper.ieee.org/groups/si10/index.html>, and <http://grouper.ieee.org/groups/260/1/>) with a portion that is open to the public. The former site includes the ASTM members of the IEEE/ASTM Committee for Maintaining SI 10.

Issues before SCC14

SCC14 continues to seek sales data of the standards it is responsible for, including SI 10. The timing of this sales data would be most convenient for us if reported by calendar year, by standard, and by format. Receipt of this report by the

end of February each year would be useful to this committee for review and deliberations in its annual meeting shortly afterwards.

Progress has been slow but positive in the effort made by SCC14 to make SI 10 available for free download to the public in PDF format. ASTM staff has been instrumental in helping us keep this effort moving forward; they initiated liaison with IEEE staff (GET program) to develop two possibilities. As a result, Ana Sainvilus of the IEEE GET program provided two proposals on 2011 August 24. One proposal is to make the entire SI 10 available in PDF format at a cost to SCC14 of \$5 000 per year. (The initial quote from the GET program to us was \$50 000 per year.) To accept this quote, SCC14 would have to seek out and appeal to corporations or other likely donors. The second proposal is to instead make available a free SI Guide, based on SI 10. A draft was been provided to us by Ms. Sainvilus on August 25 to indicate the extent and scope of such a guide. Both proposals have been made available to the mailing lists of the IEEE/ASTM Committee for Maintaining SI 10 and that of SCC14. Members are reviewing the two proposals, including the suggested SI Guide.

4. Budget and expenses

IEEE/SCC14 has no budget, no funds, nor expenses not covered by out-of-pocket funds from its volunteer members. Those expenses relate to travel, meals, internet services needed for participation, and similar personal expenses. NIST has, in the past, kindly funded use of mass-telephonic means (e.g., Adobe's Connect) of holding remote meetings with participants who have not physically attended meetings. NIST and IEEE-USA have provided meeting space in the past, when physical meetings were the norm.

5. Meeting Schedule

The committee meets annually. In the past, this has largely been a physical meeting in the Washington, DC area, but telephonic participation has grown recently. In light of that and for the convenience of the members it met last on 2011 April 26 primarily by telephonic means, with the key station at NIST Headquarters in Gaithersburg MD and funded by them. The next meeting is tentatively scheduled for mid-March of 2012. This will also likely be a teleconference or perhaps a video conference or web conference. Between meetings the committee and its subcommittees work by means of electronic and telephonic correspondence.

James R. Frysinger, Chair
632 Stony Point Mountain Road
Doyle TN 38559-3030
(H) 931.657.3107 (C) 931.212.0267 (F) 931.657.3108
j.frysinger@ieee.org JimF@metricmethods.com
2011 August 26

Roster for IEEE/SCC14

SCC 14 includes several subcommittees. Those are:

Designation	Name	Duties
SCC 14.1	Maintenance of SI 10	Represent IEEE on the Joint IEEE/ASTM Committee for Maintaining SI 10
SCC 14.2	Definitions	Std 270
SCC 14.3	Unit Symbols	Std 260.1, Std 1541
SCC 14.4	Quantity Symbols	Std 280
SCC 14.5	Acoustics	Std 260.4
SCC 14.6	Mathematical Symbols	Std 260.3
SCC 14.7	International System of Quantities	P80000
SCC 14-Int	International	Sit on US TAG to ISO TC12/IEC TC25
SCC 14-Rev	Review	Cast Coordination ballots on new and revised standards
SCC 14-Leg	Legislative	Monitor and report on legislative matters of interest

SCC 14 members, with subcommittee memberships, are:

Roster of SCC 14 members

<p>William W. Aird, P.E., CEM</p>	<p>Classification: User</p> <p>SA Member: Y</p>
<p>Gordon J. Aubrecht Ohio State University, Physics Department</p>	<p>Classification: Academic</p> <p>SA Member: Y 14.7; 14-Int</p>
<p>Bruce B. Barrow Retired</p>	<p>Classification: General Interest</p> <p>SA Member: Y Chair 14.1; 14.7; 14-Int; Chair 14-Rev</p>

William Brenner
NIBS

Classification: **User**

SA Member: **N**

Dennis Brownridge
The Orme School

Classification: **Academic**

SA Member: **N**

Albert Censullo
ACS Nomenclature, Terminology and
Symbols Committee
Prof. Emeritus, Dept. of Chemistry and
Biochemistry
California Polytechnical State University

Classification: **Academic**

SA Member: **N**

Stanley L. Ehrlich
Stan Ehrlich Associates

Classification: **User**

SA Member: **Y**
Chair 14.5

James R. Frysinger, LCAMS
LCDR, USN-Ret.
College of Charleston,
Dept. of Physics-Ret.
Metric MethodsSM

Classification: **Academic**

SA Member: **Y**
14.1; Chair 14.3; 14.7; 14-Int; 14-Rev

Elizabeth Gentry
Metric Coordinator,
Laws and Metric Group
Weights and Measures Division, NIST

Classification: **Government**

SA Member: **N**

Louis A. Herstein	Classification: User SA Member: N
Donald W. Hillger CIRA	Classification: Government SA Member: N
Stan I. Jakuba SIJ Associates	Classification: User User SA Member: N
B. P. Leonard Dept. of Mechanical Engineering	Classification: Academic SA Member: N
Jack M. Loudon	Classification: General Interest SA Member: Y
David Martinsen Senior Scientist American Chemical Society	Classification: User SA Member:
Arthur O. McCoubrey	Classification: General Interest

SA Member: **Y**

Edward F. Mikowski, Jr.
Vice President, Technology Strategy and
Standard Electronic Industries Alliance

Classification: **User**

SA Member: **N**

Daleep Mohla
DCM Electrical Consulting Services, Inc

Classification: **General Interest**

SA Member: **Y**

John Nichols
Asst. Prof., Dept. of Construction Sciences
Texas A&M University

Classification: **Academic**

SA Member: **N**

Allan D. Pierce
ASA

Classification: **Academic**

SA Member: **N**

Bill Potts, FBCS, CMS
WFP Consulting

Classification: **User**

SA Member: **N**
14.1

Howard Ressel, P.E.
NY State Dept. of Transportation, Region 4

Classification: **General Interest**

SA Member: **N**

14.1; 14-Int

<p>Anne-Marie Sahazizian Hydro One Inc</p>	<p>Classification: General Interest</p> <p>SA Member: Y</p> <p>14.7</p>
<p>John T. Scott Retired</p>	<p>Classification: General Interest</p> <p>SA Member: N</p> <p>14.1; 14.7; 14-Int; 14-Rev</p>
<p>Ralph M. Showers Dept. of Electrical Engineering University of Pennsylvania</p>	<p>Classification: User</p> <p>SA Member: Y</p> <p>14-Int</p>
<p>Barry N. Taylor NIST</p>	<p>Classification: Government</p> <p>SA Member: Y</p> <p>14.7; 14-Int</p>
<p>Ambler Thompson NIST Div. 215</p>	<p>Classification: Government</p> <p>SA Member: Y</p> <p>14.1; Chair 14.4; Chair 14.7; Chair 14-Int</p>
<p>Paul Trusten, R.Ph. Vice President and Public Relations Director U.S. Metric Association, Inc.</p>	<p>Classification: User</p>

SA Member: **N**

14.1

Sue Vogel

Manager, IEEE-SA Committee Services;
National Electrical Safety Code

Classification:

SA Member:

Lorelle Young

President, USMA

Classification: **General Interest**

SA Member: **Y**

Chair 14-Leg

Matthew Zotter

Classification:

SA Member: **N**

Allen J. Zuckerwar

NASA Langley Research Center

Classification: **Government**

SA Member: **Y**