

# IEEE Standards Coordinating Committee 14

## Quantities, Units, and Letter Symbols

### Annual Report for 2013

#### 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 2012/13*

Track IEEE Std 260.3 and IEEE Std 270 reaffirmations through the RevCom approval process. *Performance: IEEE Std 260.3 reaffirmed 2012 Aug 20, IEEE Std 270 reaffirmed 2012 Dec 05.*

SCC14-Rev: Reestablish routine and full SCC14 coordination activity by the end of 2010. *Performance: SCC14 has not yet been able to accomplish this due to lack of volunteers. IEEE-SA staff has asserted that their editors are now up to speed on IEEE/ASTM SI 10 and use it to edit all proposed standards and their revisions.*

Finish the IEEE/ASTM SI 10 tutorial. *Performance: IEEE-SA staff acknowledged that this project has not been*

*completed and avowed to resurrect it. Nothing further has been heard.*

Pushing of IEEE/ASTM SI 10 to standards developers and standards revisers. *Performance: This is now in the hands of IEEE-SA staff.*

SCC14-Int: Develop proposed “Modified” versions of ISO/IEC 80000 series for adoption as an IEEE standard. *Performance: The new IEEE/IEC dual logo agreement prevents acceptance of the work intended to be done under this PAR. SCC14 has decided to withdraw this PAR and a request to do so has been submitted.*

### ***Objectives and Goals for 2013/14***

No standards under the auspices of this committee are due for revision due to the recently extended standards cycle. Dr. Bruce Barrow is planning to submit a PAR to revise IEEE Std 945. Mr. James Frysinger is considering submission of a PAR for the revision of IEEE Std 1541.

### ***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. Ambler Thompson, NIST), and the US Technical Advisor for IEC/TC 1 (Prof. Ralph 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.

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” for the U.S. to all working groups (WGs) within the latter. He has also been appointed as DTA for the U.S. Technical Advisory Group to IEC/TC 1 and as an “Expert” for the U.S. on IEC/TC 1 WG 100.

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 of each 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 monitor and comment on matters in parallel to the U.S. TAGs for ISO/TC 12, IEC/TC 25, and IEC/TC 1. Periodically requests for interpretation of IEEE/ASTM SI 10 are received and responded to.

The recent change to 10 year standard cycles has greatly reduced the workload for this year and the next few for SCC14. In the next few years consideration will be given to revising standards early to spread out their due dates.

There is concern on this committee for the next cycle of review and revision for IEEE/ASTM SI 10. ASTM support has waned considerably. IEEE has gone to a 10 year cycle for standards but ASTM and ANSI are still on 5 year cycles. That would make IEEE/ASTM SI 10 due for revision in 2015.

An effort to rebuild a team for coordination votes on IEEE standards continues.

#### **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 2013 March 27 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 2014. 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.

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2013 August 07

## Roster for IEEE/SCC14

SCC 14 includes several subcommittees. Those are:

<b>Designation</b>	<b>Name</b>	<b>Duties</b>
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*

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

<p><b>Albert Censullo</b>  ACS Nomenclature, Terminology and  Symbols Committee  Prof. Emeritus, Dept.of Chemistry and  Biochemistry  California Polytechnical State University</p>	<p>Classification: <b>Academic</b>  <b>SA Member: N</b></p>
<p><b>Stanley L. Ehrlich</b>  Stan Ehrlich Associates</p>	<p>Classification: <b>User</b>  <b>SA Member: Y</b>  <b>Chair 14.5</b></p>
<p><b>James R. Frysinger, LCAMS</b>  LCDR, USN-Ret.  College of Charleston,  Dept. of Physics-Ret.  Metric Methods<sup>SM</sup></p>	<p>Classification: <b>Academic</b>  <b>SA Member: Y</b>  <b>14.1; Chair 14.3; 14.7; 14-Int; 14-Rev</b></p>
<p><b>Elizabeth Gentry</b>  Metric Coordinator,  Laws and Metric Group  Weights and Measures Division, NIST</p>	<p>Classification: <b>Government</b>  <b>SA Member: N</b></p>
<p><b>Louis A. Herstein</b></p>	<p>Classification: <b>User</b>  <b>SA Member: N</b></p>
<p><b>Donald W. Hillger</b>  CIRA</p>	<p>Classification: <b>Government</b>  <b>SA Member: N</b></p>
<p><b>Stan I. Jakuba</b>  SIJ Associates</p>	<p>Classification: <b>User User</b>  <b>SA Member: N</b></p>
<p><b>B. P. Leonard</b>  Dept. of Mechanical Engineering</p>	<p>Classification: <b>Academic</b>  <b>SA Member: N</b></p>
<p><b>Jack M. Loudon</b></p>	<p>Classification: <b>General Interest</b>  <b>SA Member: Y</b></p>
<p><b>David Martinsen</b>  Senior Scientist  American Chemical Society</p>	<p>Classification: <b>User</b>  <b>SA Member:</b></p>

<b>Arthur O. McCoubrey</b>	Classification: <b>General Interest</b> <b>SA Member: Y</b>
<b>Edward F. Mikowski, Jr.</b> Vice President, Technology Strategy and Standard Electronic Industries Alliance	Classification: <b>User</b> <b>SA Member: N</b>
<b>Daleep Mohla</b> DCM Electrical Consulting Services, Inc	Classification: <b>General Interest</b> <b>SA Member: Y</b>
<b>John Nichols</b> Asst. Prof., Dept. of Construction Sciences Texas A&M University	Classification: <b>Academic</b> <b>SA Member: N</b>
<b>Allan D. Pierce</b> ASA	Classification: <b>Academic</b> <b>SA Member: N</b>
<b>Bill Potts, FBCS, CMS</b> WFP Consulting	Classification: <b>User</b> <b>SA Member: N</b> <b>14.1</b>
<b>Howard Ressel, P.E.</b> NY State Dept. of Transportation, Region 4	Classification: <b>General Interest</b> <b>SA Member: N</b> <b>14.1; 14-Int</b>
<b>Anne-Marie Sahazizian</b> Hydro One Inc	Classification: <b>General Interest</b> <b>SA Member: Y</b> <b>14.7</b>
<b>John T. Scott</b> Retired	Classification: <b>General Interest</b> <b>SA Member: N</b> <b>14.1; 14.7; 14-Int; 14-Rev</b>
<b>Ralph M. Showers</b> Dept. of Electrical Engineering University of Pennsylvania	Classification: <b>User</b> <b>SA Member: Y</b> <b>14-Int</b>
<b>Barry N. Taylor</b> NIST	Classification: <b>Government</b> <b>SA Member: Y</b> <b>14.7; 14-Int</b>

<p><b>Ambler Thompson</b> NIST Div. 215</p>	<p>Classification: <b>Government</b> SA Member: <b>Y</b> <b>14.1; Chair 14.4; Chair 14.7; Chair 14-Int</b></p>
<p><b>Paul Trusten, R.Ph.</b> Vice President and Public Relations Director U.S. Metric Association, Inc.</p>	<p>Classification: <b>User</b> SA Member: <b>N</b> <b>14.1</b></p>
<p><b>Sue Vogel</b> Manager, IEEE-SA Committee Services; National Electrical Safety Code</p>	<p>Classification: <b>SA Member:</b></p>
<p><b>Lorelle Young</b> President, USMA</p>	<p>Classification: <b>General Interest</b> SA Member: <b>Y</b> <b>Chair 14-Leg</b></p>
<p><b>Matthew Zotter</b></p>	<p>Classification: <b>SA Member: N</b></p>
<p><b>Allen J. Zuckerwar</b> NASA Langley Research Center</p>	<p>Classification: <b>Government</b> SA Member: <b>Y</b></p>