



# ICES

International Committee on Electromagnetic Safety

## MEETING ANNOUNCEMENT

### TC95 Summer 2015 Meetings

**Date:** 7 April 2015  
**To:** Members of ICES, its Subcommittees and Interested Parties  
**From:** R. C. Petersen  
**Subject:** Announcement: ICES/TC95 June 2015 Meetings

ICES/TC95 and its Subcommittees will meet 11 June (Thursday) thru 13 June (Saturday) 2015 at the City of Pacific Grove Community Center (Lebeck Room), 300 Forest Avenue, Pacific Grove, CA 93950. In addition, a dosimetry workshop will be held at the Asilomar Conference Center, Pacific Grove, on Sunday 14 June. (The ICES meetings are being held immediately before BioEM2015, which begins the evening of 14 June.)

Enclosed are the following:

- 1) Tentative meeting schedule
- 2) Draft Agenda – TC95/SC1
- 3) Draft Agenda – TC95/SC2
- 4) Draft Agenda – TC95/SC3/SC4
- 5) Draft Agenda – TC95/SC6
- 6) Draft Agenda – TC95
- 7) Program – “IEEE/ICES Workshop of Current Status of LF Dosimetry Modeling”
- 8) Registration form
- 9) Hotel information

R. C. Petersen  
Tel: 908-234-0373  
E-mail: [r.c.petersen@ieee.org](mailto:r.c.petersen@ieee.org)

NOTE--We are encouraging members of ICES and COMAR to reach out to younger colleagues, and invite them to participate in this June meetings. It was obvious at the September 2014 ICES meeting that our membership is rapidly maturing, and the future of our activity requires an infusion of new and younger members. We very much need to pass on our “corporate memory”, and share our experiences with future leaders.



# ICES

International Committee on Electromagnetic Safety

## ICES TC95 Summer 2015 Meetings

### *Tentative Schedule*

ICES TC 95 and the TC95 subcommittees will meet 11 – 13 June 2015 at the City of Pacific Grove Community Center (Lebeck Room), 300 Forest Avenue, Pacific Grove, CA 93950. In addition, a Dosimetry/Modeling Workshop will be held Sunday, 14 June 2015. Draft agendas for TC95, its subcommittees, and the COMAR meetings will follow, as will detailed information regarding the workshop.

#### **Thursday, 11 June 2015**

- 0900 – Noon: TC95/Subcommittee 1: Techniques, Procedures, Instrumentation and Computation
- 1300 – 1700 h: TC95/Subcommittee 2: Terminology, Units of Measurements and Hazard Communication
- 1730 – 1900 h: AdCom (AdCom members and invited guests)

#### **Friday, 12 June 2015**

- 0900 – Noon: TC95/Subcommittee 6: EMF Modeling and Dosimetry
- 1300 – 1630: TC95/Subcommittee 3: Safety Levels with Respect to Human Exposure to Electromagnetic Fields, 0 - 3 kHz  
*and*  
TC95/Subcommittee 4: Safety Levels with Respect to Human Exposure to Electromagnetic Fields, 3 kHz – 300 GHz  
(SC3 and SC4 will meet jointly)
- 1630 – 1800 h: COMAR

# ICES TC95 Summer 2015 Meetings

## *Tentative Schedule (Continued)*

### **Saturday, 13 June 2015**

0900 – Noon: TC95/Subcommittee 3: Safety Levels with Respect to Human Exposure to Electromagnetic Fields, 0 - 3 kHz  
*and*  
TC95/Subcommittee 4: Safety Levels with Respect to Human Exposure to Electromagnetic Fields, 3 kHz – 300 GHz  
(SC3 and SC4 will meet jointly)

1300 – 1700 TC95 (Main Committee)

### **Sunday, 14 June 2015**

0830 – 1640 TC95/Subcommittee 6: “IEEE/ICES Workshop on Current Status of LF Dosimetry Modeling” \*

\*

This workshop will discuss uncertainties and differences of opinion regarding modern computational models and the interpretation of results for the assessment of electrostimulation effects on the human body. Presentations will be given by invited experts in electrical engineering, computer modeling, neurology, physiology, and electrical safety.



# ICES

International Committee on Electromagnetic Safety

## *Draft Agenda*

**IEEE/ICES TC95 Subcommittee 1  
(Techniques, Procedures and Instrumentation)  
0900 – 1200 h  
Thursday, 11 June 2015  
The Pacific Grove Community Center (Lebeck Room)  
300 Forest Avenue  
Pacific Grove, California, USA**

- |   |                         |
|---|-------------------------|
| <b>1. Call to Order</b>   | <i>Colville/Douglas</i> |
| <b>2. Welcome and Introductions</b>                             | <i>All</i>              |
| <b>3. Modifications and Approval of Agenda</b>                  | <i>Colville/Douglas</i> |
| <b>4. Approval of September 2014 SC-1 Meeting Minutes</b>       | <i>Colville/Douglas</i> |
| <b>5. Old Business</b>  |                         |
| <b>a) Revisions of Consolidated C95.3-2002 and C95.3.1-2010</b> | <i>Colville/Douglas</i> |
| <b>b) Compare IEC 62232 with IEEE C95.3</b>                     | <i>Cotton</i>           |
| <b>6. New Business</b>  | <i>Colville Douglas</i> |
| <b>a) Open Discussion</b>                                       |                         |
| <b>7. Time and Place of Next Meeting</b>                        | <i>Colville/Douglas</i> |



INTERNATIONAL  
COMMITTEE *on*  
ELECTROMAGNETIC  
SAFETY

**IEEE ICES Subcommittee 2**

**Committee on Terminology, Units of Measurement,  
and Hazard Communications**

**Thursday, 11 June 2015**

**1300 - 1700 h**

**City of Pacific Grove Community Center (Lebeck Room)**

**300 Forest Avenue, Pacific Grove, CA 93950**

**Draft Agenda**

1. CTO by Chair, R. Tell
2. Introduction of those in attendance; new secretary D. Haes
3. Modifications and approval of agenda
4. Review and approval of Unapproved Minutes of Pismo Beach meeting (September 9, 2014) previously distributed via access to the ICES website.
5. Old Business:
  - Report of RF Safety Barrier Working Group, Bob Johnson
  - Report of RF Safety Signage Working Group, TBD
  - Report of Hazard Communications Working Group (minimal information/training to qualify for exposure at upper tier), Bob Curtis
6. New Business:
7. Time and Place of Next Meeting –TBD.
8. Adjournment –



# ICES

## International Committee on Electromagnetic Safety

### *Draft Agenda*

**IEEE/ICES TC95 Subcommittee 3  
Safety Levels with Respect to Human Exposure to Electromagnetic Fields, 0 - 3 kHz  
and**

**IEEE/ICES TC95 Subcommittee 4  
Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields,  
3 kHz to 300 GHz**

**1300 – 1630 h**

**Friday, 12 June 2015**

*and*

**0900 – 1200 h**

**Saturday, 13 June 2015**

**The Pacific Grove Community Center (Lebeck Room)**

**300 Forest Avenue**

**Pacific Grove, California, USA**

- |  |                         |
|--|-------------------------|
| <b>1. Call to Order</b>  | <i>Ziskin</i>           |
| <b>2. Introduction of those Present</b>                            | <i>All</i>              |
| <b>3. Approval of Agenda</b>                                       | <i>Ziskin</i>           |
| <b>4. Approval of the Minutes of the 10 September 2014 Meeting</b> | <i>Ziskin</i>           |
| <b>5. Secretary's Report</b>                                       | <i>Petersen</i>         |
| <b>6. Chairmen's Reports</b>                                       | <i>SC3/SC4 Co-Chair</i> |
| <b>7. Progress on revision of IEEE Std C95.1-2005</b>              | <i>Ziskin</i>           |
| a) Update on the revision of C95.1-2005 and C95.6-2002             | <i>Chou</i>             |
| b) Literature surveillance   | <i>Elder</i>            |
| c) Progress on literature review papers                            | <i>Faraone/Leaders</i>  |
| d) Update on NATO standard C95.1-2345                              | <i>Klauenberg</i>       |
| <b>8. Update on New Subcommittee (SC-6): Dosimetry issues</b>      | <i>Hirata</i>           |
| <b>9. Developing a WHO Standard on Non-Ionizing Radiation</b>      | <i>Bodemann</i>         |
| <b>10. Technical Presentations</b>                                 | <i>Ziskin</i>           |
| a) Stimulus-response relationships and dosimetric uncertainty      | <i>Kavet</i>            |
| b) Development of Averaging Times for Frequencies above 3 GHz      | <i>Foster</i>           |
| <b>11. New Business</b>  | <i>Ziskin</i>           |
| <b>12. Date and Place of Next Meeting</b>                          | <i>Ziskin</i>           |
| <b>13. Adjourn</b>   |                         |

**NOTE—Presenters/participants who intend to display MS PowerPoint/Word files, please send a copy to Ron Petersen ([r.c.petersen@ieee.org](mailto:r.c.petersen@ieee.org)) for the minutes.**



# ICES

International Committee on Electromagnetic Safety

## *Draft Agenda*

**IEEE/ICES TC95 Subcommittee 6 (EMF Dosimetry Modeling)**

**0900 – 1200 h**

**Friday, 12 June 2015**

**The Pacific Grove Community Center (Lebeck Room)**

**300 Forest Avenue**

**Pacific Grove, California, USA**

- |  |               |
|--|---------------|
| <b>1. Call to Order</b>                  | <i>Hirata</i> |
| <b>2. Introduction of those Present</b>  | <i>All</i>    |
| <b>3. Approval of Agenda</b>             | <i>Hirata</i> |
| <b>4. Chairman's Reports</b>             | <i>Hirata</i> |
| a) Mission of SC6                        | <i>Hirata</i> |
| b) Workshop                              | <i>Hirata</i> |
| c) LF Topics                             | <i>Reilly</i> |
| <b>5. Technical Presentations</b>        | <i>Hirata</i> |
| <i>TBD</i>                               |               |
| <b>6. New Business</b>                   | <i>Hirata</i> |
| a) Working Groups on LF Topics           | <i>Hirata</i> |
| b) RF Topics                             | <i>Hirata</i> |
| <b>7. Date and Place of Next Meeting</b> | <i>Hirata</i> |

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# ICES

## International Committee on Electromagnetic Safety

### *Draft Agenda*

#### TC95 Committee

(Safety Levels with Respect to Human Exposure to Electric, Magnetic  
and Electromagnetic Fields, 0 Hz to 300 GHz)

1300 – 1700

Saturday, 13 June 2015

City of Pacific Grove Community Center (Lebeck Room)

300 Forest Avenue

Pacific Grove, CA 93950

- |   |                           |
|---|---------------------------|
| 1. Call to Order  | <i>Chou</i>               |
| 2. Introduction of those Present  | <i>All</i>                |
| 3. Approval of Agenda   | <i>Chou</i>               |
| 4. Approval of September 11, 2014 TC95 minutes  | <i>Chou</i>               |
| 5. ICES Chairman's Report   | <i>Bodemann</i>           |
| 6. TC95 Chairman's Report   | <i>Chou</i>               |
| 7. Executive Secretary's Report   | <i>Petersen</i>           |
| 8. Treasurer's Report   | <i>Petersen</i>           |
| 9. Membership Chairman's Report   | <i>Klaunberg</i>          |
| 10. Topic presentations   |                           |
| a) RF/Microwave/mm-wave dosimetry using MR Thermal Imaging  | <i>Alon</i>               |
| b) ICES participation in meetings of IEEE Broadcast Technology Society,<br>National Association of Broadcasters and International Broadcasting Convention | <i>Wandel/Chou</i>        |
| 11. Subcommittee Reports  |                           |
| a) SC1 (Measurements and computations)  | <i>Colville/Douglas</i>   |
| b) SC2 (Safety programs)  | <i>Tell</i>               |
| c) SC3 (Safety levels – 0 Hz to 3 kHz)  | <i>Kavet</i>              |
| d) SC4 (Safety levels – 3 kHz to 300 GHz)   | <i>Ziskin/Thansandote</i> |
| e) SC5 (Effects of EM fields on blasting operations)  | <i>Hay</i>                |
| f) SC6 (EMF dosimetry modeling)   | <i>Hirata</i>             |
| 12. ICES Website Update   | <i>Chou</i>               |
| 13. New Business  | <i>Chou</i>               |
| 14. Future Meetings   | <i>Chou</i>               |
| 15. Adjourn   |                           |

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# ICES

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## *Draft Program*

### IEEE/ICES Workshop on Current Status of LF Dosimetry Modeling

0830 – 1640 h

Sunday, 14 June 2015

Chapel Hall, Asilomar Conference Center  
Pacific Grove, California, USA

Organizers & Chairs: Akimasa Hirata (Nagoya Institute of Technology)

*and*

J. Patrick Reilly (Metatec Associates)

1. **0830 – 0840**: Opening Remarks
2. **0840 – 0910**: “Rationale behind EMF Compliance Assessment Protocols,”  
Andreas Christ (*Research Consultant, Cabo Frio (RJ), Brazil*) and Jafar Keshvari (*Microsoft Corporation, EMF Research and Standards, Espoo, Finland*)
3. **0910 – 0940**: “Measurement of dielectric characteristics of biological tissues from ELF to MMW frequencies,” Kanako Wake, Kensuke Sasaki, and Soichi Watanabe  
(*National Institute of Information and Communications Technology, Tokyo, Japan*)
4. **0940 – 1020**: “The role of skin modelling in ELF/LF magnetic field exposure assessment based on IEEE C95.6 and ICNIRP 2010,” Schmid Gernot (*Seibersdorf Laboratories, Austria*)

#### **Break: 1020 – 1040**

5. **1040 – 1110**: “Review of ELF/LF dosimetry for magnetic field exposure in Japan,”  
Kenichi Yamazaki (*CRIEPI, Yokosuka, Japan*)
6. **1110 – 1140**: “Modeling of transcranial Electrical Stimulation (tES): Implications for Safety and Efficacy,” Dennis Truong and Marom Bikson (*City College New York, USA*)

7. **1140 – 1210:** “Survey of Electrostimulation models,” J Patrick Reilly  
(*Metatec Associates, USA*)

**Break: 1210 – 1330**

8. **1330 – 1400:** “Magnetophosphene perception threshold in humans exposed to ELF MF up to 50 mT – experimental data and a modelling approach,” Alexandre Legros (*Lawson Health Research Institute, Canada*)
9. **1400 – 1430:** “Insights on human response to EMF exposure obtained by combining detailed anatomical induction models and modern neuronal dynamics models,” 'Esra Neufeld (*IT'IS Foundation, Switzerland*)
10. **1430 – 1500:** “Multi-scale induction and electrostimulation model with experimental validation,” Ilkka Laakso and Akimasa Hirata (*Nagoya Institute of Technology, Japan*)

**Break: 1500 – 1520**

11. **1520 – 1640:** Discussion on Future Research Topics

**HOTEL INFORMATION**  
**IEEE ICES TC95 meetings**  
**June 11-13, 2015**

**Meeting site:**

Pacific Grove Community Center  
LeBeck Room  
515 Junipero Avenue  
Pacific Grove, CA  
(831) 648-5730

**Hotel choices (near the meeting site):**

If you only plan to attend the TC95 meetings, the Pacific Grove Inn is the most convenient (5 min walk). If you also plan to attend the BioEM2015 meetings, the other two hotels are closer to the Asilomar Conference Center (where BioEM2015 will be held), and about 25 minute walk to the Community Center. Note—These are small hotels with less than 20 rooms each, it is recommended that you book your room right away.

**Pacific Grove Inn**

581 Pine Avenue  
Pacific Grove, CA 93950  
Phone: 831-375-2825  
Fax: 831-643-1000  
Email: ebala@pacificgroveinn.com

A Bed & Breakfast facility with limited service. Rates include breakfast each morning, daily wine and cheese every afternoon and freshly baked cookies at night.

Standard rates on weekdays start at **\$169.99** and up; standard weekend rates start at **\$194.99** (based on room types). Suites on weekdays start at **\$199.99** and up based on the type of suite. Suites on weekends start at **\$224.99** and up based on the type of suite.

**Rates do not include taxes and fees.**

In order to lock in a group rate and the rooms, a 1<sup>st</sup> night deposit and a credit card on file is necessary. Group rates are as follows: weekday – standard rooms (not suite) **\$139.99**; weekend – standard rooms (not suite) **\$ 179.99**.

The Inn has 16 rooms including the suites, therefore availability is limited. In order to hold the offered rate and rooms, a 1<sup>st</sup> night deposit is needed for all the rooms.

Since the group rates are subject to space availability, it is suggested that reservations should be made early.

**Pacific Gardens Inn**

701 Asilomar Boulevard  
Pacific Grove, CA 93950

[pacificgardensinn.com](http://pacificgardensinn.com)

(831) 646-9414

**From hotel management:**

Thank you for the interest in staying at our Inn. Below is a breakdown of rooms and cost. I have given your group a 10% discount. The rates below do not include taxes. Please feel free to contact me with any questions.

Weekday/Weekend 113.40 / 135.00	Single Queen Bed: Single room with fireplace (3 rooms available)
117.00 / 139.50	Double queen without fireplace (2 rooms available)
125.10 / 152.10	Double Queen bed with fireplace (9 rooms available)
153.00 / 166.00	1 bedroom Mini Suite with fireplace (2 rooms available) <i>Separate living room with fireplace, kitchen, dining area.</i>
166.50 / 180.00	Large 1 bedroom suite with fireplace (2 rooms available) <i>Two queen beds in bedroom, Separate large living room with fireplace, kitchen, dining area.</i>
184.50 / 207.00	2 bedroom suite with fireplace (2 rooms available) <i>1 Bedroom with queen bed and second bedroom with 2 twin beds. Separate kitchen, living room with fireplace and dining area.</i>

Your stay includes a continental breakfast every morning and wine and cheese each evening. We have Direct TV and complimentary wireless internet. We also have two spas located in the center of the property. We are about a 1 minute walk to Asilomar Conference Grounds, 3 minute walk to the beach. It is about 2 miles to downtown Pacific Grove.

Thank you,  
Robert Boerner  
[innkeeper@pacificgardensinn.com](mailto:innkeeper@pacificgardensinn.com)

**Book on line** at [www.pacificgardensinn.com](http://www.pacificgardensinn.com) use the code word **ICES TC95** in the special request field to secure the group discount. A confirmation with the correct rate will be re-sent.

Our check in time is 3pm and check out time is 11am. The Occupancy Tax in Pacific Grove is 10% of the room rate plus city tax of \$2.00 nightly. The room rate is reflected above per night and does not include the taxes. Please note that all cancellations made within seven days of the arrival date will result in a 1 night charge if room is not re-sold. We look forward to seeing you.

**Rosedale Inn:**

775 Asilomar Blvd  
 Pacific Grove, CA 93950  
 Phone 831-655-1000  
 Email: [gm@rosedaleinn.com](mailto:gm@rosedaleinn.com)

**From hotel management:**

Date	2Q Room	Deluxe 2Q Suite	King	King Studio (ADA)	King Suite	Premium 2Q Suite	Premium King Suite	Queen
6/10/2015	\$ 179.99	\$ 199.99	\$ 159.99	\$ 159.99	\$ 209.99	\$ 229.99	\$ 199.99	\$ 149.99
6/11/2015	\$ 179.99	\$ 199.99	\$ 159.99	\$ 159.99	\$ 09.99	\$ 229.99	\$ 199.99	\$ 149.99
6/12/2015	\$ 229.99	\$ 269.99	\$ 199.99	\$ 209.99	\$ 249.99	\$ 289.99	\$ 269.99	\$ 189.99
6/13/2015	\$ 229.99	\$ 269.99	\$ 199.99	\$ 209.99	\$ 249.99	\$ 289.99	\$ 269.99	\$ 1 89.99
	2 Queen Beds	2 Queen beds in the bedroom and a queen pullout sofa in the living room	1 King Bed	King bed and pullout sofa in the same room. Handicap	King bed in the bedroom and a pullout sofa in the living room	2 Queen beds in the bedroom and a queen pullout sofa in the living room	King bed in the bedroom and a pullout sofa in the living room	1 queen bed

This is a group rate. When you call, the group name (IEEE/ICES TC95).