



## **TC-5: High Power Electromagnetics**



**Annual Meeting at the  
2005 IEEE International Symposium on EMC at Chicago, Illinois  
Wednesday, August 10, 2005**

**Confirmed August 16, 2006**

1. Chairman William (Bill) Radasky brought the meeting to order at 12:08 pm. It was noted that our Secretary, Randy Jost, was absent and Mike McInerney, the Vice Chairman, would act as secretary for this meeting. It is also possible that we will try to find a new Secretary for TC-5 if Randy Jost cannot continue. All the members present introduced themselves, and the following items were discussed.
2. Bill reviewed last year's minutes. They were unanimously approved.
3. The membership list was distributed. Current members were requested to update the list and new members were requested to add their contact information.
4. Bill provided a brief summary of the Workshop on Intentional EMI (IEMI), which was held on Monday afternoon and hosted by TC-5. Between 60 and 70 people attended the workshop presented by Richard Hoad and William Radasky.
5. Sixteen papers were reviewed by TC-5 for the 2005 EMC Symposium: 13 were accepted, 3 were rejected. Of the 13 accepted papers: 7 were oral in the HPEM session, 5 were open forum (poster), and 1 oral paper was transferred to another session for presentation. Most of the papers were on lightning. This was the first year that full papers (preliminary) were required. The papers were submitted electronically (in Adobe PDF format) to the EMC paper review website and the Technical Activities Chair (TAC) assigned the papers to a technical committee for review. The TC chair assigned three reviewers for each paper. The reviewers were able to download the papers from the website. The reviewers submitted their reviews electronically, with comments, to the website. This is where the process deteriorated. Bill bemoaned the complicated method needed to consolidate the reviews and to submit the summary. He hoped that this would improve for next year's conference, as it required more work than the old manual system for the volunteers reviewing papers.
6. On a brief tangent from the conference review process, Bill described the similar types of problems with the IEEE EMC web site involving the Special Issue on IEMI and HPEM published in the August 2004 issue of the IEEE Transactions on Electromagnetic Compatibility (volume 46, number 3). He pointed out that those who write the software for these web reviews apparently have never really participated in a typical review process. He also gave a summary of the Special Issue for the new members. Maqsood Mohd entered a motion that Bill be officially recognized for his work in completing this special issue. The motion was carried, with applause.



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7. Mike McInerney reported on the status of the web page. He recently updated it and as of this meeting, it is current. Bill mentioned that Mike had done a great job even though this really was not part of his job description. His work is definitely appreciated by all.
8. Bill Radasky gave a brief description of (and the recruitment announcement for) IEEE P1642 - *Recommended Practice for Protecting Public Accessible Computer Systems from Intentional EMI* and IEEE P1643 - *Recommended Practice for Protecting Voting Equipment and Systems from Intentional EMI activities*, both of which he is chairing. Both guides are planned to be combined in a single document and are expected to be ready for balloting in October 2006.
9. There was a brief discussion for the membership to encourage their participation in HPEM and IEMI activities in the near future. Following is a list of some of the conferences where HPEM topics are likely to be covered:
  - International Conference on Lightning, September 2005, [www.ICOLSE.org](http://www.ICOLSE.org)
  - EMC-Zurich in Singapore, Singapore, February 2006
  - AMEREM, Albuquerque, U.S.A., July 2006
  - IEEE International Symposium on EMC, Portland, U.S.A., August 12-17, 2006
  - Euro EMC, Barcelona, Spain, September 2006
  - International Conference on Lightning Protection, Japan, September 2006, [www.ICLP2006.org](http://www.ICLP2006.org)
  - EMC Zurich Symposium, Zurich, February 2007
  - IEEE International Symposium on EMC, Honolulu, U.S.A., July 9-12, 2007
10. Dr. Rachidi gave two presentations: one on a proposed workshop on lightning at the 2007 IEEE International EMC Symposium and one on the formation of a subcommittee on lightning. The workshop proposal was discussed first.
  - Maqsood Mohd suggested that this should be a tutorial session.
  - Fred Heather suggested that aircraft should be included.
  - These issues were discussed, and it was agreed that a ½ day tutorial should be organized by Dr. Rachidi covering basic lightning aspects and ground systems.
  - The consensus was that aircraft should be a separate ½ day session/tutorial that would follow the tutorial on basic lightning aspects. Fred Heather volunteered to help organize the aircraft lightning tutorial.
  - Maqsood mentioned that tutorials are usually held on Monday.
  - The topic of including lightning models in the tutorial was mentioned. A brief discussion followed.
  - A representative of the 2007 symposium technical program committee mentioned that there is a proposal to hold "global university" in conjunction with the symposium. This would be a weeklong (Monday through Friday) university-level EMC course. It was not



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clear how this would impact the normal tutorial schedule for the conference, so no action was taken on the subject at this time.

- In conclusion it was decided that Dr. Rachidi should take preliminary action to organize a ½ day tutorial on basic lightning information and ground system interactions. Mr. Heather should take preliminary action to organize a ½ day tutorial on lightning and aeronautical systems. Since this is one year ahead of the normal schedule, the organization of the two tutorials will be discussed next year in Portland and formally recommended to the Honolulu organizers after the TC-5 meeting. The Chairman will make the Honolulu organizers aware of our preliminary plans.
11. Another item came up for discussion, this time on the issue of U.S. ITAR and how it might hinder the open exchange of ideas in the area of HPEM. The Attendees' consensus was that it is each author's responsibility to ensure that any paper or presentation is properly cleared by the responsible authorities. This cannot be the responsibility of the IEEE.
  12. The formation of a subcommittee on lightning was discussed based on the proposal by Dr. Farhad Rachidi. A motion to form a subcommittee on lightning was discussed and carried unanimously. Dr. Rachidi will be the first chairman. He will be sending an announcement/inquiry to the TC-5 membership. (For those unable to wait, Dr. Rachidi may be contacted directly.) Bill Radasky indicated that he would ensure that all lightning papers submitted to next year's conference are forwarded to the lightning subcommittee for their review. Their ranking of papers will be merged with the other HPEM rankings so that a consolidated ranking will be submitted from TC-5.
  13. Bill Radasky asked for suggestions on possible TC-5 sponsored activities for the 2006 symposium. Workshop? Tutorial? A tutorial on ESD was suggested. Attendees generally agreed that this was a good suggestion. Bill will see if he can find a volunteer to begin the organization of the Tutorial – David Pommerenke, Moshe Netzer, Bill Ritenour, and A. Braunstein were suggested as possible participants.
  14. On a final topic there was a short discussion on lightning prediction/location systems and issues, mostly pertaining to their usefulness. No resolution was achieved on these issues.
  15. Bill Radasky suggested for the next conference and for the foreseeable future that the TC-5 meeting be held as a lunch meeting on Wednesday following the HPEM session, if that can be arranged. It seems clear that a lunch meeting is much more convenient for the members than a breakfast meeting.

The meeting was adjourned, by attrition, at 1:25 pm.

Respectfully submitted



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Michael McInerney, Secretary (acting)



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