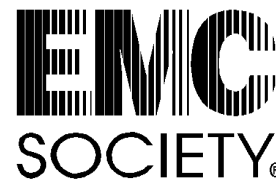




## TC-5: High Power Electromagnetics



**Annual Meeting at the  
2008 IEEE International Symposium on EMC at Detroit, Michigan  
Wednesday, August 20, 2008**

**Confirmed on August 19, 2009**

1. Opening of the Meeting. Chairman Dr. William (Bill) Radasky brought the meeting to order at 12:04 pm. Chairman Radasky reviewed the pre-meeting agenda and asked for changes; none were suggested so the agenda was approved. The following items were discussed.
2. Minutes. Secretary Price reviewed the minutes of the 2007 meeting. There were no corrections or comments, so the minutes were approved as written.
3. TC-5 Membership List. All of the members present introduced themselves. Secretary Price circulated a roster (list of 31 attendees is attached).
4. Technical Papers. Chairman Radasky reported that the committee reviewed 11 papers submitted to the 2008 conference of which 2 were rejected. Of the remaining 9, 2 authors were asked to make mandatory revisions and 1 of those did not respond. In addition, 2 papers were not submitted at the end of the process. There were not enough papers for a unique session, so the 6 papers were allocated to other sessions. Unfortunately the decision to allocate papers to other sessions was not coordinated with TC-5. This oversight was to be raised the next day at the TAC meeting by Chairman Radasky.
5. Special Tutorial Session on Lightning. Chairman Radasky mentioned that the proposal for a special tutorial session on lightning impacts on aerospace systems moved smoothly through the approval process for this Detroit Symposium. Fred Heather reported that an excellent panel of national experts on lightning would present a good, wide range of subjects on Friday morning.
6. Special Tutorial Session on EMP. Dr. William Prather presented a summary of the tutorial on aircraft EMP hardening specifications and measurement methods to be presented on Friday afternoon.
7. Standards. Two IEEE standard practice publications on intentional EMI were in work last year. The first (P1642—Recommended Practice for Protecting Public Accessible Computer Systems from Intentional EMI) recommends measures to protect computers and computing systems from IEMI. The third draft is about 60% complete with 90% expected by the end of the year. A high-quality draft will be issued by the end of 2009 with voting to commence in 2010 and publication later that year. The standard committee will work in a correspondence mode as critical members have had difficulty attending the



conference. The second publication (P1643) was to be a specific standard practice about protecting electronic voting machines from IEMI but was cancelled due to both delays in the work and overall difficulties in dealing with electronic voting machines.

8. Web Page. Chairman Radasky mentioned that Vice Chairman McInerney was unable to attend this meeting but that the web site is in excellent condition with agendas and minutes back to 2001 and with links to significant documents.
9. HPEM and IEMI Activities. Chairman Radasky reviewed HPEM and IEMI activities since the last meeting. There were four major conferences with papers dealing with IEMI: 1) EMC Europe Workshop in Paris, 14-15 June 2007; 2) International Conference on Electromagnetics in Advanced Application, Torino, 17-21 September 2007; 3) 18<sup>th</sup> International Zurich Symposium on EMC, Munich, 24-28 September, 2007; 4) 19<sup>th</sup> International Zurich Symposium on EMC, Singapore, held jointly with the Asia-Pacific Symposium on EMC, 19-23 May, 2008.
10. Future IEEE International Symposia on EMC. Chairman Radasky reported that Dr. Frank Sabath has proposed a special tutorial or session on conducted transients to be jointly organized by TC-5 and TC-7 for Austin in 2009. It will deal with the characterization, propagation and analysis of, and protection for high-power fast transients on power cable and signal lines. The session would include threats from ESD and surge to EMP and short-pulse, high-power UWB signals.

Kurt Sebacher suggested a half-day tutorial on MIL-STD-461 and -464 for the Austin IEEE Symposium in 2009.

Dr. Prather and Walter Scott suggested a half-day tutorial for 2009 on the new aircraft EMP standard being developed by DTRA\*.

The members of TC-5 supported both of these suggestions.

11. New Activities for TC-5. Chairman Radasky invited suggestions for new future activities. Prof. Rachidi, who was not present at this meeting, had proposed in 2007 a special issue on lightning to be published in the IEEE Transactions on EMC in August 2009. The issue will include lightning discharge observations and modeling, currents and characteristics, LEMP, and protection.

There was some discussion about other topics for special issues of the transactions, but no firm decision was made. Chairman Radasky agreed to review the past history of special issues to see what new topics should be scheduled in the future. This will be discussed at the TC-5 meeting in Austin in 2009.



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12. Other Business. Chairman Radasky noted the TAC has asked the TCs to review their charters. Chairman Radasky displayed the charter and asked for comments. There were none. Therefore no changes will be made to the TC-5 charter.

Chairman Radasky asked members to suggest links for the TC's web page. These links should be provided to our Secretary, William Price, by email.

13. The meeting was adjourned at 1:14 PM.

Respectfully submitted,

William Price  
Secretary TC-5

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\* After the Detroit Symposium was over, Walter Scott informed the Chairman that DTRA had decided against an unrestricted distribution for the forthcoming EMP standard. It therefore cannot be presented in a tutorial at the Austin IEEE EMC Symposium in 2009. We will therefore consider extending the 461/464 proposal to an all-day tutorial.



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### Attendees at TC-5 Meeting on 20 August 2008

Name	Organization	E-mail Address
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