

**Hoosier Association of Science Teacher's Inc. (HASTI)  
Annual Conference, February 4-6, 2009  
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**Report to the Science Support Committee and  
Hoosier Chapter Health Physics Society**

***Background***

In support of the Health Physics Society and Science Support Committee's mission to provide instructional materials and resources to teachers for the teaching of radiological sciences, the Hoosier Chapter of the Health Physics Society participated in the Hoosier Association of Science Teacher's annual conference in Indianapolis, Indiana, February 4-6, 2009. This was the Hoosier Chapter's first time participating in this event. Participation consisted of a manned exhibit booth February 5<sup>th</sup> and 6<sup>th</sup> and presentation of three continuing education sessions, all of which are described below.

***Exhibit Booth***

The Hoosier Chapter arranged for use of the national HPS booth for this effort. The booth was staffed with 2-3 members of the Hoosier Chapter on a rotating basis from 8:00am to 5:00 pm Thursday Feb. 5<sup>th</sup> and 8:00 am to 2:00 pm, Friday Feb. 6<sup>th</sup>. The booth was stocked with approximately 7 Civil Defense meters for giveaway, HPS rulers/letter openers engraved with the Science Support committee website, various promotional items donated by vendors and handouts detailing Hoosier Chapter contacts/resources for science teachers. We also had on display various radioactive consumer products such as Fiestaware, a radium dial watch etc. for demonstration with the Geiger counters.



***Exhibit Booth Results/Observations***

The HPS booth, despite its somewhat outdated and irrelevant photographs, provided a very professional touch to this effort and was a great asset. We estimate that overall approximately 150 teachers stopped by our booth. The Geiger counters and radioactive items set-up at the booth provided a good draw to the booth as well. In particular we had a civil defense meter on the table which caused individuals who have or have had a similar device to stop. Beyond that, the HPS ruler/letter opener and sticky note pads (donated by a vendor) were a good draw to the booth as well. We did not advertise that we had meters for giveaway, but instead discerned interest and need during our conversations. All of the meters were easily given away.

We quickly learned that many teachers are able to attend the HASTI conference only for one day. Since the exhibit hours and conference schedules were extended on Thursday, teachers more often chose Thursday. Friday had noticeably lower attendance (which impacted attendance at our continuing education sessions.)

With a \$450 registration fee, the exhibit booth was the most expensive part of this endeavor (and could likely not have been afforded without funding from the Science Support Committee,) but it was key to making contact with the teachers. Traffic was brisk at times, but not so brisk that one couldn't take the time to discuss at length with the teachers. Since the conference, Hoosier Chapter members have had multiple follow-up communications with teachers who stopped by our booth. It was also thanks to our presence in the exhibit hall that the Hoosier Chapter of the Health Physics Society was invited to participate in an all day meeting of the Indiana Chapter of American Association of Physics Teachers. This meeting is scheduled to occur in April of 2009 and will provide yet another opportunity to promote the Health Physics Society as a resource for teachers.

### ***Continuing Education Sessions***



The chapter conducted three 45 minute continuing education sessions on Friday afternoon. They were as follows.

**Session 1: “*Fundamentals of Radiation Science and Exposure*,”** introduction of basic radiation science information including the powerpoint presentation available to teachers on the Science Support Committee website.

**Session 2: “*Radiation Detection Demonstration using the Vernier Lab Pro*.”** Covered basic operation of the Vernier LabPro and Radiation Detector and providing step by step instructions for the “Background Radiation” experiment in the Vernier, Nuclear Science lab book. This lab consisted of allowing a charged balloon to collect radon decay products for 45 minutes followed by determination of the progeny’s effective half-life from a plot of the balloon’s resulting decay curve.

**Session 3:** Panel Session titled “**Beneficial Uses of Radiation in Modern Society,**” consisting of five local HPs representing medical and research applications of radiological science and information related to naturally occurring radioactive materials.



### ***Continuing Education Session Results/Observations***

**Session 1** had approximately 16 attendees (unfortunately this session conflicted with a similar session in which a local college representative modeled radioactive decay.)

**Session 2** about 10 attendees and **Session 3** had only 2 attendees. Attendance was low for most of the Friday afternoon sessions. Even so, attendees were appreciative of each session and enjoyed the material. Many of the questions during sessions 1 and 3 focused on resources available for adding to their current curriculum or for starting a new class., as well as on debunking myths about nuclear power, radiation exposure AND accidents (including Three Mile Island and Chernobyl.)

The intent of session 2 was to demonstrate a lab that could be used to meet state education curriculum standards and be done entirely with Vernier equipment provided by the HPS. The material was well-received, but to date we have no requests to loan out the equipment as a unit (a few of the radiation detectors have been loaned out for stand alone use.)

### ***Recommendations***

We recommend provision of alternative photos and information of greater relevancy to science teachers for use with the HPS booth.

We recommend the HPS continue to provide giveaways such as the ruler for these events and perhaps even generate a customizable handout/brochure. Such a brochure could advertise the science support committee website and Vernier lab equipment available for loan, but should also include a customizable portion for local chapter information and contacts. The HPS “Careers in Health Physics” tri-fold brochure should be available for distribution as well.

In future efforts we would recommend offering only one lecture based session and one lab session and leaving plenty of time for questions. We would also recommend NOT scheduling the sessions to occur one after another, in fact they should be scheduled on different days to increase the potential audience.

We recommend the Hoosier Chapter continue it’s presence in the HASTI exhibit hall, perhaps as often as every year. Continued participation will engender lasting relationships between teachers and Hoosier Chapter members and increase Hoosier Chapter knowledge of Science Teacher needs.

We recommend continued funding of these events by the HPS Science Support Committee, as the Hoosier Chapter could not have afforded participation on it’s own.

Prior to interacting with teachers at events such as this, HPS chapters should identify state education standards specific to the radiation sciences (the Hoosier Chapter was able to conduct a keyword search online.) These provide great talking points with teachers and help HPs understand the needs of teachers in their state.

### ***Acknowledgments***

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