

# SPOTLIGHT ON “HIDDEN PHYSICISTS”

## TERRENCE M. GEORGE, DE LA SALLE COLLEGIATE HIGH SCHOOL, DETROIT, MICHIGAN

Terrence M. George holds the position of High School Principal at De La Salle Collegiate High School.

## GEORGE D. KERR, HEALTH PHYSICIST, OAK RIDGE NATIONAL LAB. (RETIRED)

“After graduating, in 1962, from Morehead State University with an undergraduate degree in mathematics and physics, I entered North Carolina State University (NCSU) to work on a graduate degree and pursue my interest in nuclear physics. One of the text books we used was *The Atomic Nucleus* by Robley Evans.

During my first year at NCSU, I studied many of the latter chapters in Evans’ book on my own and worked many of the problems which led me to a life-long interest in the interaction of radiation with matter and radiation dosimetry. In my second year at NCSU, I was awarded a US Public Health Service Fellowship

in Radiological Physics and continued my radiation studies both in class and on my own. In 1964, I was employed as a physicist in the Health Physics Division at Oak Ridge National Laboratory (ORNL).

I completed the requirements for an MS degree in physics from NCSU in 1965 and a PhD in physics from the University of Tennessee in 1971. In 2000, I retired after working for 35 years at ORNL and started a new career as a health physics consultant.

During the years, my interests grew to include radiation transport and shielding, nuclear accident dosimetry, nuclear weapons effects, radiation dose reconstruction, and radiation risk assessment. This was due in part to my involvement for more than 30 years as a US Consultant to the Atomic Bomb Casualty Commission (ABCC), now the Radiation Effects Research Foundation (RERF), in Hiroshima and Nagasaki, Japan. At ABCC/RERF, I developed long-term relationships with scientists involved in other fields such as medicine, radiobiology, genetics, epidemiology and statistics.

I was also involved with numerous

Japanese and US scientists in two major dosimetry studies for the RERF: the first designated as DS86 (for Dosimetry System 1986) and the second designated as DS02 (or Dosimetry System 2002). These studies were undertaken to reassess several different problems encountered in the reconstruction of the radiation doses to the atomic-bomb survivors at Hiroshima and Nagasaki.

Following the last reassessment effort, the US Department of Energy gave me a Special Achievement Award which states: ‘In grateful recognition of your outstanding service as Coordinator of the United States Working Group on the Reassessment of A-Bomb Dosimetry, and as Editor of the two volumes of scientific papers defining the DS02 system. The Department of Energy, on behalf of the US Government, recognizes the importance of your efforts in the development of the dosimetry systems in Hiroshima and Nagasaki which are essential to our understanding of the health effects of radiation exposure.’ It is satisfying to be honored in such a way, but the most satis-

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## “Hidden Physicists”

One of Sigma Pi Sigma’s greatest assets is its diversity. Stemming from a common interest in and aptitude for physics, our members have gone on to pursue a multitude of interesting and unusual career paths. Now, more than ever, we seek to draw on the wisdom and experience of our alumni.

With help from the American Institute of Physics, Sigma Pi Sigma is attempting to locate the names and whereabouts of people with BS, MS, or PhD degrees in physics whose careers have taken them away from the “traditional” physics community. We ask for your help in finding the universe of people who are trained in physics—what they do and where they are. As the

physics community faces new challenges and opportunities, we would like to engage these “hidden physicists” in the fellowship of physicists. Therefore, if you work outside the traditional physics community, please provide us with the following information. Also, if you know of others in similar situations, please encourage them to contact us. Several responses will be selected for publication in each issue of *Radiations*.

Material for publication must be received by February 15 for the spring issue and by August 15 for the fall issue. ◆

Name \_\_\_\_\_ Position \_\_\_\_\_

Company \_\_\_\_\_

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Comments \_\_\_\_\_

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Send to: Sigma Pi Sigma, American Institute of Physics, One Physics Ellipse, College Park, MD 20740  
Telephone: (301) 209-3007 ◆ Fax: (301) 209-0839 ◆ E-mail: sps@aip.org.

fying honor has been that I was able to make friends during my work at ABCC/RERF and ORNL with distinguished scientists in many different fields. A few of these distinguished scientists were Eizo Tajima, Sakae Shimizu, Itsuzo Shigematsu, Shigenobu Nagataki, James N. Yamazaki, Frederick Seitz, James V. Neel, William J. Schull, Gilbert W. Beebe, Seymour Abrahamson, Robert F. Christy, John Malik, Jess Marcum, Alvin M. Weinberg, Karl Z. Morgan, Rufus H. Ritchie, and last but not least, Robley Evans.”

**STEPHEN M. KIDWELL, MGR. OF STRATEGIC PLANNING, AMEREN, ST. LOUIS, MO**

“Steve was inducted into Sigma Pi Sigma at Rhodes College in the spring of 1982. He pursued graduate studies at the University of Wisconsin-Madison, earning MS degrees in Nuclear Engineering (1985) and Energy Analysis and Policy (1987).

For the past 20 years, Steve has held a variety of positions at Ameren, an electric & gas utility based in his home town of St. Louis, MO. He is currently Manager of Strategic Planning, with responsibilities for research and project management supporting Ameren’s senior leadership and Board of Directors. Recent projects include development of corporate policies toward climate change, nuclear power licensing, unregulated generation strategy, benchmarking, risk management and corporate branding strategy.

Though Steve chose not to pursue physics as a profession, the strong quantitative nature and analytic rigor of his Physics training has served him well in his career. Recently, Ameren chose Steve to participate in the Executive MBA program at the Olin School of Business, Washington University in St. Louis. Steve graduated with honors in March 2007, and was inducted into the Beta Gamma Sigma honor society for business professionals.

Steve lives in the city of St. Louis with his wife Nancy, daughter Audrey (14) and son Robert (12).

**JAMES A. PEDEN, SHOREHAM, VERMONT, RETIRED**

“Yes, I confess to being a Sigma Pi Sigma member who qualifies as a ‘hidden physicist.’ After working the field for a while (Google: ‘Farragher, Fite, and Peden’), I retired to a simpler life in rural Vermont. Today my wife and I run a small web design company which was the first and only web site in Vermont chosen as a Microsoft ‘Pick of the Day’ back in 1997.

I’m certainly not alone...my good friend, John Knowles, (also a Sigma Pi Sigma member) ultimately took his PhD in physics to Nashville, TN, where he became Chet Atkins’ sidekick for 30 years, earning a couple of Grammys in the process. (Google: ‘John Knowles, guitar’).

The serious study of physics prepares one well for many fields of endeavor—John says his knowledge of physics gave him a much greater understanding of some of the more subtle aspects of string harmonics and other acoustic properties of the guitar. For myself, I have always enjoyed the ability to understand technology of all types, from electronics to bridge-building and virtually everything in between. This knowledge has been a life-long blessing beyond measure.

Not to be overlooked is the fact that the advanced mathematics required for serious study of physics adds another layer of understanding that can well serve almost any other profession.

So weep not for we ‘hidden physicists.’ Our lives are far, far richer for having ‘been there, done that.’”

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James A. Peden  
www.middlebury.net

**KERRY P. REDMANN, BASS ENTERPRISES PRODUCTION COMPANY, MANDEVILLE, LA**

“After graduating with his B.S. in Physics from Loyola University, Kerry began working in the oilfield. In 1982 he graduated from Louisiana State University with a M. S. in Petroleum Engineering. He has managed drilling, workover, and completion operations all over the globe for several different companies, and currently does so for Bass Enterprises Production Company. He

now has 29 years in the Petroleum Industry.

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Kerry P. Redmann  
kpredmann@basspet.com

**BRIAN L. TICHENOR**

“Like many, I completed my physics degrees when I thought there were not many paths except teaching and research. I’m grateful my counselor encouraged me to augment my curriculum with many basic engineering and chemistry courses, including one material science course. That course was pivotal. I’ve had a challenging and rewarding 30-year career applying physics and physical sciences to materials technologies for military and commercial aircraft, space programs and missile defense. These industries continue to need physicists because improving performance requires developing applications for new science.

As a young student I was concerned that political or industrial forces would corrupt my utilization of the sciences. ‘It’s easier to change institutions from within than by throwing rocks from outside.’—that was great advice from my counselor. I can only add that hard work can indeed make that happen.

Start somewhere, then seek opportunities to grow. Engineers need your help. And how!

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B. L. Tichenor  
BS/MS Physics  
Sigma Pi Sigma 1976

