

THE ACORN

Newsletter of the American Nuclear Society
Oak Ridge/Knoxville Section



Volume 2002-2

August 2002

Message From The Chair

As the newly installed officers, board members, and committee chairs meet over the summer to organize the 2002-2003 year activities, it is a time to reflect and take stock. I am happy to report that what we find is excellent. The Section continues to be healthy in membership, wealthy financially, and wise (or lucky) in recruiting wonderful volunteers.

Our local Section has about 200 members. Dinner meeting attendance usually averages about 40 per meeting.

We currently have about \$100,000 in our Section coffers. We typically spend about \$13,000 per year on our Section activities. For more information on finances, please see the separate article in this newsletter.

As most of you realize, the strength of our organization is the quality of the volunteers behind-the-scenes. These are the people who put on teacher workshops, run student workshops, and host national topical conferences. These are also those who conduct the routine business of the society by scheduling dinner meeting speakers, reserving space for dinner meetings, paying bills and balancing checkbooks, sending reports to ANS headquarters, writing newsletters, and tracking active members. We constantly want our members rotating in and out of these roles, both to share the work and to keep fresh ideas streaming in. If you are interested in helping in any way, please contact one of the officers or committee chairs.

As a signal that others recognize the special work going on in our section, we were recently

SPECIAL DINNER MEETING

Representative Zach Wamp

August 27, 2002
UT Faculty Club

Social starts at 6:00 p.m.
Dinner at 6:45 p.m.

Contact Sandi Larson to make reservations:
larsonsl@ornl.gov • 574-7883

presented with a national award at the meeting in Hollywood, Florida. The certificate reads "Local Sections Meritorious Award...for recognition in the area of Local Section Public Information." Hats off to all the volunteers who made this possible and here's to a wonderful year ahead!

-Maria LeTellier

VISITED OUR WEB SITE LATELY?

www.engr.utk.edu/org/ans

Web site created and maintained by
Hanna Shapira. Comments and suggestions
should be directed to Hanna at
hshapira@techno-info.com

2002-2003 Officers

Chair:

Maria LeTellier
letellierms@ornl.gov

Vice Chair/Chair-Elect:

Julie Ezold
ezoldjg@y12.doe.gov

Secretary:

Jan Preston
prestonj@ornl.gov

Treasurer:

Trent Primm
primmrtiii@ornl.gov

Immediate Past Chair:

Bernadette Kirk
kirkbl@ornl.gov

Board Members at Large:

Steve Bowman
 Jeff Johnson
 Michael Dunn
 John Wagner
 Larry Miller
 Lien Nguyen

Standing Committees

Arrangements: Sandi Larson and
 Dwaine Pucket

Education: Julie Ezold and Bill Hill

Honors&Awards: Larry Townsend

Membership: Norb Grant

Newsletter: Dan Ingersoll

Program: John Wagner

Web Site: Hanna Shapira

Scholarship: Steve Bowman

Shades: Peggy Emmett

Topicals: Kevin Reynolds and
 Michael Dunn

Bylaws: Peggy Emmett

Student Liaison: Sadat Goluoglu

Plans Continue for M&C Topical in 2003

The Oak Ridge/Knoxville Section will be hosting the 2003 Topical Conference for the ANS Mathematics and Computation Division. The conference will be held at the Park Vista Hotel in Gatlinburg on April 7-10, 2003. Bernadette Kirk is the General Chair and Yousry Azmy is the Technical Program Chair. The conference, entitled "A Century In Review -- A Century Anew" will focus on the many applications of computational nuclear science and engineering. Full papers are due October 21, 2002. Please visit the web site at:

<http://meetingsandconferences.com/MC2003/>

Finances: We're Ready To Sponsor a Few Good Ideas!

As stated in the Chair's greeting, we currently have about \$100,000 in our Section coffers. Most of these funds are due to local section members contributing their time and talent to hosting topical meetings over the past three years (section dues essentially support only the newsletter mailing and production costs). This level of funding exceeds our historic average and would support our normal annual activities for more than 5 years. Since we expect our section to continue to host topical meetings that are financial successes, the Executive Committee is searching for new opportunities to invest our funds in ways that promote the goals of our society. Recent suggestions included increasing our support to the University of Tennessee ANS student section for scholarships and/or increasing the amount of funds given to the student section for participation of students in American Nuclear Society topical and general meetings. The Executive Committee is seeking additional ideas and people to "attach" to those ideas. Projects can be either single event activities or re-occurring events scheduled at regular intervals. If you have a proposal for consideration, please contact Maria LeTellier (YIL@y12.doe.gov; 865-241-3458) or any member of the Executive Committee (listed on left column of this page).

- Maria LeTellier

A Day at King's Academy

Wednesday, April 24th was Career Day at King's Academy, a small private school tucked away in the foothills of the Smokey Mountains in Seymour, TN. Ms. Traci Greene had invited me to participate with the event after coming to the April Dinner meeting.

I arrived at the school at 7:30 a.m., where all the speakers were greeted with breakfast. Beginning at 8:00 was the first of seven groups of high school students (freshmen through seniors) to hear about career opportunities in nuclear science. With the help of ideas from Bill Hill, I discussed several options of what a nuclear engineer could do. These included nuclear medicine (PET, diagnostics, and cancer treatments), space exploration, food irradiation, power operations, and research (e.g. spallation neutron source).

In addition to participating in Career Day, I was asked to speak to two seventh grade science classes and Ms. Greene's eleventh grade chemistry class. First, I was treated to lunch at the school's cafeteria. For the 7th grade classes, I discussed the basics of radiation and some everyday sources. Then, using jelly beans, the class learned about radioactive decay and half-life.

For the chemistry class, I was given their textbook and we went over the chapter on nuclear chemistry. The topics included definition of radioactivity, types of radiation (alpha, beta, gamma, positron, and electron capture), half-life, and decay chains. This class also performed the jelly bean experiment as well as learning how to determine how much of a substance was remaining after it went through multiple half-lives.

Near the end of the class time, I presented Ms. Greene with a Chart of the Radionuclides. As a class, they learned how to use the Chart to trace decay series and to find half-lives of radionuclides.

My day at King's Academy was a rewarding one. I hope that some of the students will consider a career in nuclear science. In addition, I have found a new appreciation for teachers and their profession.

- Julie Ezold

Girl Scout Nuclear Energy Badge

On Saturday February 9th, members of the Society of Women Engineers (SWE), Women in Nuclear (WIN) and the American Nuclear Society provided local Girl Scouts (Cadettes and Seniors) with an opportunity to earn their nuclear badge. The event was held at the American Museum of Science and Energy in Oak Ridge, Tennessee. There were 26 Girl Scouts from 10 different troops present at the event. The "hands-on" sessions included: Learning the Language, Time Traveler-Nuclear Pioneers, Radiation is All Around Us, What's Your Exposure, Ensuring Safety - Regulatory Requirements, Irradiated Foods, Managing Exposure, Plant Seeds - using Irradiated Seeds, Nuclear Power, Nuclear Medicine, and From Mining to Waste Disposal. The Girl Scouts were given an opportunity to listen to and ask questions of women who have careers in the nuclear industry.

- Peggy Emmett and Julie Ezold

Dave Hill Joins ORNL

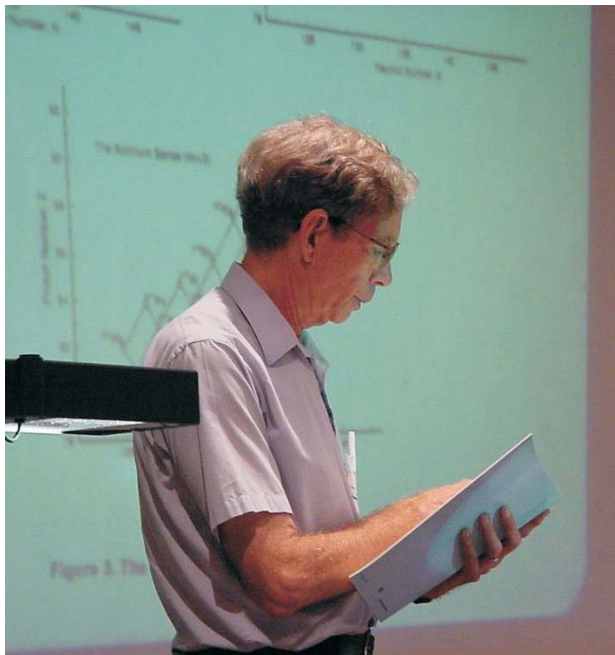
In July, Dr. David J. Hill was hired by ORNL to lead the recently formed Nuclear Science and Technology Division. Dr. Hill was formerly the Deputy Associate Laboratory Director at Argonne National Laboratory. Dr. Joseph Herndon, Acting Director since 10/1/01 will be Deputy Division Director.

Nuclear Fundamentals Workshop

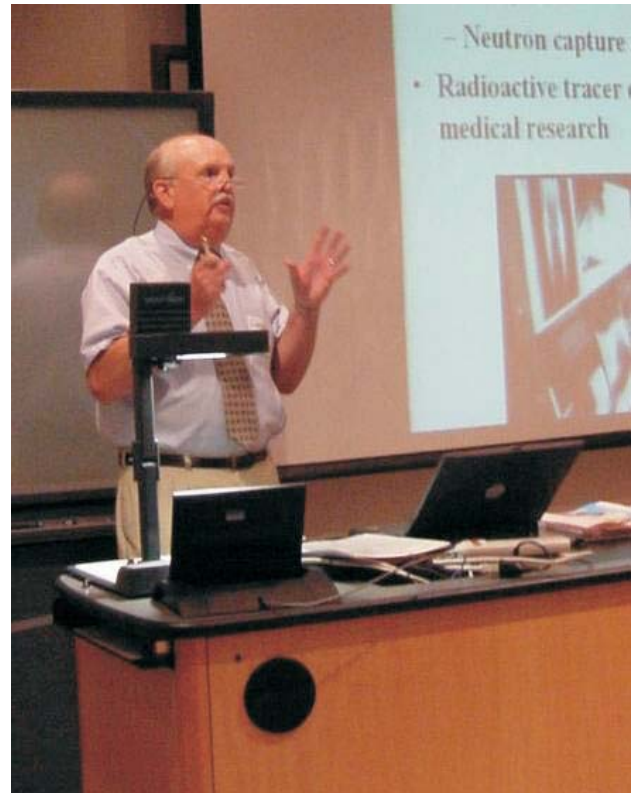
The 2002 Nuclear Fundamentals Workshop was conducted on July 15th at the University of Tennessee. Twenty two middle and high school teachers participated in the event which focused this year on nuclear medicine. The morning began with a fire alarm activation, which turned out to be a false alarm. Once everyone was settled, Dr. Lee Dodds began with the welcome and introductions.

Dr. Dodds provided an overview of Nuclear Technologies in Society. Items discussed were nuclear power plants, food preservation, and nuclear medicine. Julie Ezold presented the nuclear basics so as to get everyone ready for the Chart of the Nuclides, presented by Dick Rothrock. Various radioactive sources were presented and discussed by Ken Eger. These sources included pitchblend, a tritium dial watch, orange FiestaWare, and Coleman mantles. Finally, Geiger counters were passed out to the teachers. An overview on how the detectors worked and what experiments could be conducted with the detectors was given.

The afternoon session was a tour of the nuclear medical facilities at the University of Tennessee



Dick Rothrock lecturing on the chart of the nuclides



Lee Dodds lecturing on nuclear technologies

Hospital. The tour began with a presentation by Dr. Gary Smith on "What is Nuclear Medicine." The teachers were then divided into small groups to tour the facilities. The facilities included: the imaging lab, the diagnostic scanners (PET, SPECT, and gamma cameras), and finally the cyclotron where the staff make some of the radionuclides used for the scans.

- Julie Ezold



Gary Smith lecturing on nuclear medicine

Spring Dinner Meetings

Thanks to the hard work of the Program and Arrangements committees, the Oak Ridge/Knoxville Local Section had a terrific lineup of speakers and dinner venues for the first half of 2002. Highlights include:

January: **Dr. Larry Satkowiak**, Oak Ridge National Laboratory speaking on "Oak Ridge Non-Proliferation Programs and National Security."

February: **Ms. Ann D. Winters**, Manager, Educational Assistance Programs of the National Academy of Educational Training, Institute for Nuclear Power Operations (INPO), speaking on the activities within her organization.

March: **Dr. Denis Beller**, Vice President of Programs at Trout Unlimited, Los Alamos National Laboratory, speaking on the need for nuclear power and its beneficial impact on the environment.

April: **Dr. Lee Riedinger**, Deputy Lab Director at Oak Ridge National Laboratory, speaking on current and future directions in nuclear research at ORNL.

May: **Dr. Fred Peretz**, a researcher at Oak Ridge National Laboratory speaking on "A Tour of ORNL Through the Eyes of a Project -- Thorium-229 Separation."

Don't forget the special dinner meeting with **U.S. Representative Zack Wamp** on August 27 at the UT Faculty Club!

If you have ideas on future speakers, please pass them to **John Wagner** (wagnerjc@ornl.gov; 241-3570).

SCHEDULE CHANGE

Effective September, 2002, the Dinner Meetings will move to the first Tuesday of each month, unless noted otherwise.

ANS Silver Certificates

The following local section members received their Silver Certificates for 25 years of continuous membership in the American Nuclear Society:

Dr. James L. Scott
 Dr. David F. Cope (posthumously)
 Dr. Murray W. Rosenthal
 Dr. John D. Waddell
 Mr. Adolphus (Pete) L. Lotts
 Mr. John Q. Kirkman

Congratulations! The certificates were presented during the May dinner meeting.



Kudos



Congratulations go out to several local section members, including the local student chapter:

Recipients of ANS National scholarships:
Thomas Harrison, Norman Johansen, Thomas Miller, Brandon Rasmussen, and Allan Wollaber

Recipients of ANS Local Section scholarships:
Marcus Balanky, E. M. David Marsh, and Amanda Desmone

Yousry Azmy was elected as an ANS Fellow at the ANS Annual Meeting in Hollywood, FL

Tim Valentine was elected as the 2003 ANS Washington Fellow

Jeff Johnson was elected as Chairman of the ANS Radiation Protection and Shielding Division

Oak Ridge/Knoxville Local Section received the "Best Public Information and Education" (small section) from ANS

MEMBERSHIP APPLICATION/RENEWAL

Name: _____

Affiliation: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____ E-mail: _____

I am interested in serving on the following committee(s): _____

Annual membership dues are \$10.00 and are for the fiscal year beginning each June. Checks should be made payable to "ANS Oak Ridge/Knoxville Section" and mailed with this form to the return address shown below. The expiration date of your current membership is shown in the upper corner of your mailing label.

American Nuclear Society
Oak Ridge/Knoxville Section
P. O. Box 5075
Oak Ridge, TN 37831-5075

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