



Richland, Washington

January 2004

PNNL, UO plan new internship program

University of Oregon students and faculty visited Pacific Northwest National Laboratory in January to discuss a graduate internship program in materials science at PNNL.

As part of its efforts to establish stronger relationships in the region, PNNL has been interacting with UO to identify ways to work together for mutual benefit. The State of Oregon has authorized the creation of a signature research center in Multiscale Materials and Devices and PNNL is working with both Oregon State University and the University of Oregon in support of that activity.

The graduate internship program is expected to start out as a pilot program this year, with up to eight UO students participating in rotational assignments of 3-5 months at PNNL. The students will conduct part of their thesis work at PNNL under the guidance of a PNNL researcher.

Second PEMEX environmental study begins

Instituto Mexicano del Petróleo (IMP) and Battelle have received a two-year, \$8.65 million contract from Mexican oil giant PEMEX to carry out the second phase of an environmental assessment of IMP's offshore oil and gas operations in the Bay of Campeche, Mexico. Battelle manages Pacific Northwest National Laboratory for the U.S. Department of Energy. The project, a joint effort of the Battelle-IMP Alliance, will assess the nature and extent of environmental impacts that were identified as potential issues in an earlier study. Battelle's goal is to evaluate whether environmental impacts reflect PEMEX operations or whether they are a result of other environmental factors. In addition, the alliance will provide specific guidance on how PEMEX can improve environmental operations in the bay.

Battelle also is transferring technology and know-how to IMP so that they can improve environmental services and technologies. The technology transfer effort involves training in: ecological risk assessment techniques, conducting ecotoxicology studies, deepwater assessment and sampling approaches, and risk communication to stakeholders.

Technologies net awards for PNNL



Three environmental technologies developed by researchers at Pacific Northwest National Laboratory have earned a Technology Merit Award in the annual Business Achievement Awards competition sponsored by the Environmental Business Journal (EBJ).

The technologies recognized for innovation and "performance in challenging times" are FRAMES, a software system for understanding effects of industrial activities on people and the environment; a testing chamber that identifies how hard-to-measure chemicals change in the environment; and a test bed for developing fish friendly designs for roadway culverts.

Environmental Business International Inc. publishes EBJ and provides news, research reports and consulting services worldwide. For more information on the awards, see PNNL's Web site at <http://www.pnl.gov/news/2004/04-01.htm>.

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PNNL researchers keep Strykers moving ahead



Stryker vehicle

Pacific Northwest National Laboratory scientists are using modeling expertise to assist the Army's new unit—the Stryker Brigade Combat Team (SBCT)—with the logistics necessary to keep it running. The new Stryker vehicle, a key element in the U.S. Army's modernization plan, is lighter, faster and has more digital features than a tank.

PNNL researchers have helped the SBCT solve a variety of logistics problems, such as determining the optimum number and location of automation systems needed to re-order spare parts for Stryker vehicles in the field. In another project, modeling experts showed that additional equipment to receive, unload and reconfigure supplies arriving at airports or seaports was needed to provide logistical support to the SBCT.

“We have thousands of pieces of equipment depicted in this model as well as combat units and supporting logistics units,” said PNNL's Rick Callahan, who manages the program in Ft. Belvoir, VA. “If a critical piece of equipment, such as a re-fueler, breaks down, it is no longer available for re-supply missions. Losing the equipment will ultimately impact the combat battalions and these impacts will be highlighted in the model. The model we developed has the kind of detail that allows for testing and experimenting in a virtual environment to identify potential problems with implementation of new policies, procedures or technology.”

New book advocates nuclear energy for electricity

Pacific Northwest National Laboratory engineer Scott Heaberlin has authored a new book that provides a unique context for understanding the use of nuclear energy in our society.

A Case for Nuclear-Generated Electricity emphasizes the positive role nuclear energy can play in modern civilization and advocates using nuclear energy for producing electricity. Heaberlin describes nuclear science and power reactor engineering for the layperson in an attempt to demystify nuclear energy and address key aspects of the public's fears about nuclear power and radioactive waste. He also addresses the current cultural bias against all technology and specifically nuclear technology.

A Registered Professional Nuclear Engineer in Washington state, Heaberlin has 30 years of experience in government research, reactor operations and commercial nuclear facilities. For more information about this book or to order a copy, see the Battelle Press Web site at <http://www.battelle.org/bclscript/Bookstore/casenuclearpower.cfm>.

DOE awards sixth “Outstanding” rating

The U.S. Department of Energy has awarded Battelle, operator of Pacific Northwest National Laboratory, an Outstanding rating for performance in fiscal year 2003. Outstanding is the highest designation bestowed by DOE. Battelle has achieved the rating annually at PNNL since 1998.

In a letter announcing the rating, DOE's Richland Operations Office Manager Keith Klein wrote, “...DOE continues to be very pleased with Battelle's overall performance. As in years past, the strong partnership between DOE and Battelle continues to move the Laboratory in an effective and efficient manner towards the future.”

While some areas for improvement were identified, DOE noted the Laboratory excelled in all three categories reviewed—Scientific and Technological Excellence, Management and Operations Excellence, and Leadership Excellence.

For more information about these items or about Pacific Northwest National Laboratory, contact:

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This publication is available online at <http://www.pnl.gov/sharingscience>

RL-P00-007 Jan. 26, 2004