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Grieving With the Nation

- Brookhaven National Laboratory and U. S. Department of Energy employees grieve with the nation the loss of those who perished in the events of September 11.
- John Marburger, Director, spoke on behalf of the Lab “to express our love for those left behind, to express our admiration for those who struggled with the enemy, to express our pride in those who rushed to aid the suffering, and to express our commitment to the value of humanity and our determination not to be deterred from human values.”
- Dr. Marburger also stated, “All our lives will be changed by these terrible and cruel events, but our mission of science and service to society will now assume even greater importance. Society depends upon us for what we do best: the systematic and objective search for new knowledge and for solutions to vexing technical problems.” He added, “Our success depends on broad cooperation with colleagues from other nations, and suffers from suspicion and prejudice. I know the times ahead will be full of grief, anger, and a will to vengeance that will challenge our capacity for objectivity and thoughtfulness toward others.”



RAP Responds

- After the World Trade Center disaster unfolded on September 11, the RAP team at Brookhaven was put on alert. The next day, New York City officials called RAP, short for Radiological Assistance Program, to assist in determining if there were any radiography sources stored or used in either of the buildings. Radiography is commonly used to check for defects in steel and concrete, much the way a dentist uses x-rays to examine teeth.
- RAP is a national program maintained by the U.S. Department of Energy to assist federal, state, and local governments in handling incidents involving radioactive materials. Every RAP response is aimed at protecting people and property.

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Students Working With Brookhaven Researchers

- More than 50 college students got a “hands-on” scientific research experience this summer, working side by side with Brookhaven scientists. Putting aside their science books, the students seized the opportunity to participate directly in a research project. For many of them, it was their first chance to do real scientific research.
- The students were participating in the Energy Research Undergraduate Laboratory Fellowships (ERULF) program, an educational initiative managed by the U.S. Department of Energy.
- Perhaps the happiest of the scientists who supervised ERULF students is physicist Ady Hershcovitch. During the past six years, he and his students developed a “plasma window,” a device that won an R&D 100 award in 1996.
- Hershcovitch hopes that the plasma window will be used in experiments at Brookhaven’s National Synchrotron Light Source, as well as in experiments at Lawrence Berkeley National Laboratory’s Advanced Light Source, and Argonne National Laboratory’s Advanced Photon Source.
- “This project has been an enormous success,” says Hershcovitch. “I did not expect to go that far. Without the ERULF students, I would not have been able to pursue the project.”

“Strange” Matter

- Brookhaven scientists have created a form of matter nowhere else present on Earth. The so-called “strange” matter might, however, be present in certain kinds of dead stars called “neutron stars.” By studying the properties of this “strange” matter, the scientists hope to better understand what happens in these dead stars.
- The researchers produced the strange matter by smashing protons into a tiny piece of tungsten at one of the Lab’s particle accelerators, the Alternating Gradient Synchrotron. The tungsten target broke into many pieces that rearranged into various particles, a small fraction of which were the rare “strange” particles.
- Laboratory scientists are very excited by the discovery. Scientists had already imagined how such strange matter would look, but nobody had ever seen it before. Now scientists can study something exotic – something many light-years away from Earth in neutron stars.

Upcoming Lecture Open to the Public:

- **David Bouchier, October 24, 5:15 p.m., Berkner Hall**
David Bouchier, an award-winning essayist for National Public Radio station WSHU, will give a humorous talk titled “A Year Not in Provence.” Also, Diane Barthel-Bouchier’s paintings and colored-pencil drawings of birds will be on display in the Berkner Hall lobby. Free.



David Bouchier



Diane Barthel-Bouchier