

Davidson Outlines Objectives

When you're first getting to know someone, you might do well to listen to the words they use in a conversation. Sometimes the pace for the future can be heard loud and clear right from the start. Take for instance PPPL's incoming director, Ron Davidson. Recently he met with groups of employees to discuss his ideas about the Laboratory and its workers.

And what words made their way into his remarks? Collaboration, accessibility, balance, teamwork, diversification and candidness were among those he chose. The way he used them indicates a willingness to listen and an acknowledgment that the Laboratory's success as a whole is dependent on the efforts of individuals.

- Recognizing the budgetary and manpower limitations put on the Laboratory

"I want there to be room for dissenting points of view. Every individual, skill, and function, is important to the enterprise here and to me."

in recent years, Davidson said that it is increasingly important for teamwork to exist within departments and throughout the Laboratory.

- Under Davidson's leadership, individuals will be encouraged to be candid . . . as well as polite and thoughtful. "I

want there to be room for dissenting points of view," he said. "Every individual, skill, and function, is important to the enterprise here and to me."

- Davidson said he wants to make

himself accessible to the PPPL staff and, as a means of doing this, has established early morning open office hours so that employees can stop by to meet with him. (Current hours are 7:30-9:00 a.m. on Fridays.)

- A balance, according to Davidson, needs to be struck between the small-, middle- and large-sized experiments being conducted at the Laboratory
- While PPPL will remain a single-purpose laboratory focused principally on fusion, it is reasonable to strive in the future for about 10% diversification in other plasma physics and technology areas. "Many people here have capabilities that can contribute significantly to this diversification," he said.
- "I will encourage collaboration with other labs because part of being the largest and leading plasma physics Laboratory is exhibiting leadership and involving others."

Ron Davidson will be at PPPL on Thursdays and Fridays through December while finishing academic commitments at Massachusetts Institute of Technology (MIT). As the Laboratory's fourth director, he will begin full-time work in January.

— E. Webster



PPPL Director, Ron Davidson.

**United Way Goals
Achieved
Thanks to You it
Worked!**


**\$30,500
collected
75%
participation**




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Operation Desert Smile

Lab-Wide Care Packages Being Sent to Saudi Arabia

A lab-wide project to send care packages to servicepeople stationed in the Middle East has just been announced. And the first donation has come from the Laboratory itself — postage to send the items that are collected.

According to Marilyn Hondorp and

Barbara Sobel, the coordinators of this effort, the goal is to send a package a month for the next several months.

"The holidays mean a lot to me," said Hondorp, "I'd like to see the servicemen and women over there have a little bit of home. This isn't about politics. Whether or

not you approve of our presence there, we're all touched in one way or another by this situation."

Sobel's reasons for getting the project off the ground go back to the Vietnam conflict. "I did this during Vietnam, and I know it meant a lot to the people who received the packages," she said. "I think

... the goal is to send a package a month for the next several months.

it's important for those in the armed forces to know that they're being thought of by people other than family," Hondorp added.

Aaron Lemonick, Deputy Director for Administrative Operations, said, "We applaud the initiative of Marilyn and Barbara. The Lab is pleased to be able to help by contributing funds from the Director's Fund." PPPL Director Ron Davidson echoed Lemonick's thoughts and said, "This is clearly a good cause; one worth supporting."

Everyone at the Laboratory has an open invitation to become involved. Items for the next package should be delivered by Friday, January 19, to either Marilyn Hondorp in LOB368, ext. 2656, or to Barbara Sobel in LOB374, ext. 2602. Pick-ups can also be arranged.

— E. Webster



Barbara Sobel and Marilyn Hondorp are coordinating a lab-wide gift-giving effort for servicemen and women in Saudi Arabia.

Photo: John Peoples



Donation Ideas

The following is a sample of items that might be useful, appreciated, and easily transported.

- Shaving cream ● Chapstick ● Sunblock ● Perfumed soap
- T-Shirts ● Videos ● Blank and music cassettes ● Wet Wipes ●
- Ice tea/instant coffee ● Creamora ● Kool Ade, Tang (anything that can enhance the taste of water) ● Hard Candy ● Gum ● Skin lotion ● Baby powder ● Magazines ● Playing cards ● Cookies ● Snacks (raisins, canned and dried fruits) ● Crossword puzzles ● Paperback books ● envelopes ● Stamps ● Soft balls

(Note: Please use discretion when donating items. Avoid articles which might melt, are religious in nature, or contain alcohol. And please do not gift wrap items.)

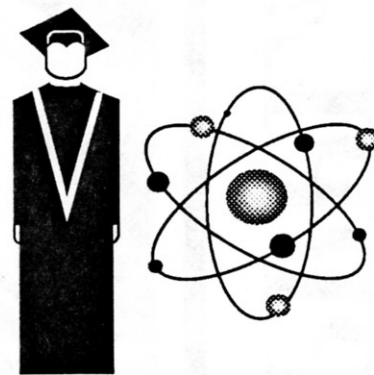
PPPL Teams Up with Trenton Education Partnership Signed

Princeton University's Plasma Physics Laboratory (PPPL) became a partner in education with the Trenton School District on Thursday, November 29. During the evening School Board meeting, PPPL's new director, Ron Davidson, signed a memorandum of understanding that, according to PPPL's Education Director, Diane Carroll, "provides a framework within which the Plasma Physics Laboratory can work with Trenton students and teachers."

Among PPPL's ongoing education efforts are its Summer Teachers' Institute for sixth to eighth grade middle-school teach-

ers, a summer Teacher Research Associate Program which enables high-school teachers to gain hands-on research experience, a Science on Saturday lecture series, student internships, and tours of the Laboratory.

This partnership, however, is the first time that a particular school system will be the primary focus of the Laboratory's efforts. Carroll says that PPPL has always taken its role within the community seriously, but a partnership will better serve the interests of the district and the Laboratory. "The reality is," she said, "that the number of young people entering science is not sufficient to meet the demands. Get-



ting students involved will benefit those working in science and technology as well as the students themselves. Even if they don't enter science professionally, students need to know about science because it affects their lives. Who better to demonstrate science than scientists themselves?"

— E. Webster

Rutherford Discusses Helium-3 as a Future Fusion Fuel Source

On Thanksgiving night, Paul Rutherford, Associate Director for Program and Research, could be seen explaining the concept of helium-3 as a possible advanced fusion fuel source on Philadelphia's Fox Channel 29.

Interviewed by reporter Dan Fiorucci outside TFTR, Rutherford answered questions regarding mining helium-3 on the moon and speculated on the benefits of such an undertaking.

Rutherford said that helium-3 is absolutely harmless. He explained that to the layman's eyes, the only noticeable difference between helium-3 and that which is generally used to lift a balloon, is that helium-3 as a lighter isotope, would float the same balloon even higher and quicker.

He said that in terms of fusion experiments, the differences between the combinations of deuterium/tritium and deuterium/helium-3 include the forecasted life-expectancy of the first wall of the reactor.

In a deuterium/tritium scenario, the cost of fuel might be low, but the reactor itself would have to be replaced in a time frame conservatively estimated to be from 5 to 10 years. With helium-3 as a fuel, however, less structural damage would be done to the internal vessel because of the production of fewer neutrons, and this could

extend the life of the reactor to by as much as 30 years.

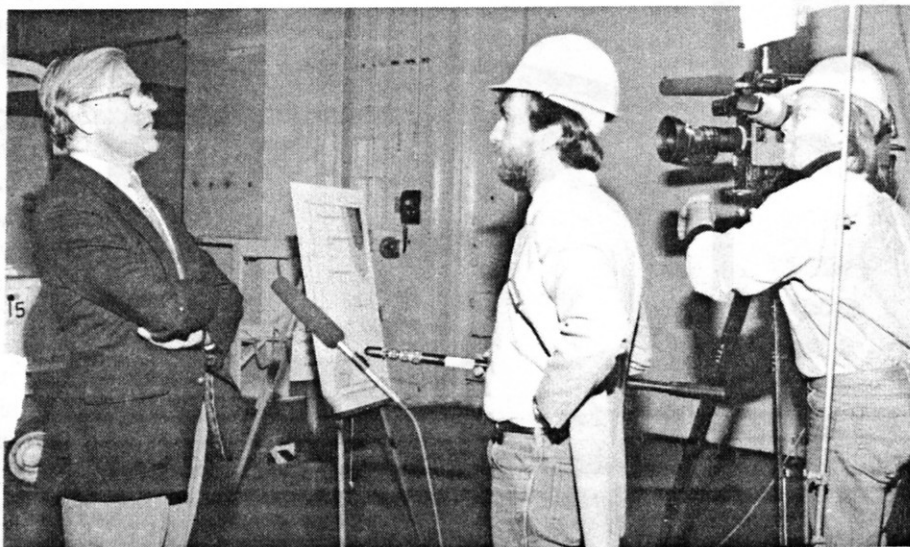
Another selling point of helium-3 is that while deuterium/tritium fusion creates orders of magnitude less radioactive than fission, a deuterium/helium-3 fusion reactor will result in a further substantial decrease in radioactivity.

The problem, however, is that while a sufficient amount of helium-3 can be found on earth to fuel preliminary experiments, it would have to be mined from the surface of

the moon for a commercial endeavor. As a by-product of the sun's fusion reaction, helium-3 is carried across the solar system in a solar wind. Once it strikes the moon's surface it becomes embedded in rocks.

PPPL has been discussing the theory of the deuterium/helium-3 reaction and possible helium-3 experiments with NASA, which has an interest in the practical applications of lunar mining.

— E. Webster



Paul Rutherford discussed helium-3 during an interview with Dan Fiorucci of Philadelphia's Fox 29 TV station.
Photo: John Peoples

What's Happening at PPPL?



Freelance photographer Roger Ressmeyer recently visited the Laboratory on assignment for National Geographic Magazine. His photos will appear in an article scheduled for the summer of '91 which will focus on America's electrical power situation. It will look at the current capacity of the industry, sources of electricity, and electrical needs for the coming decade.



Dori Barnes, PPPL United Way Chairman, handed grand prize winner Ralph Dean, two first-class tickets to London.



Door prizes were a popular part of each of the United Way sessions. Steve Iverson, Director of Personnel, officiates as John Gennuso draws the next winner.

Photos: John Peoples

NOTICES

Smithsonian Archives PPPL Database

Last year Dick Wieland and Jane Murphy were honored by being nominated for The Computerworld Smithsonian Awards for Innovative Use of Information Technology. And it has just been announced that their entry MINGL (the Mighty Ingres Locus System), will become a part of the Smithsonian Institution's National Museum of American History's permanent collection.

Because of the importance that computer applications and technology play in today's society, a national data base which can be used as an archive as well as a resource tool, will be added to the Smithsonian's Computers, Information and Society Division.

MINGL is a "data base system which provides a means of collecting and managing diagnostic data and transport code results from TFTR," according to last year's HOTLINE. Wieland said in that issue, "We wanted to provide an environment where users could examine, compare and analyze any laboratory data. We also wanted to make it easy for novice users to gain access to the data."

PPPL Education Consultant Honored at White House

Yvette Van Hise, consultant to Princeton Plasma Physics Laboratory's Science Education Program, was selected for the 1990 Presidential Award for Excellence in Science and Mathematics Teaching. Following three days of receptions and seminars in Washington, D.C., she received her award in a meeting at the White House on October 15.

Van Hise is a physics and computer science teacher at Marlboro High School. She has been working with PPPL's Diane Carroll and Rush Holt since March to develop and conduct science education programs for precollege students and teachers.

Red Cross Sends Thanks

(The following letter was sent to the Laboratory from James Moffatt, of the American Red Cross.)

"The blood drive on October 11th, once again, surpassed the goal! There were 82 pints of blood collected from 90 willing donors. There were 13 first-time donors.

Since each pint of blood can be broken into components, the lives of approximately 410 people have been affected by the blood drive at Princeton Plasma Physics Lab.

The American Red Cross is there when needed by our community. Please accept my appreciation and extend my gratitude to the blood committee for being there when we needed you."

(NOTE: The next blood drive will be on March 6.)

Happy Holidays from HOTLINE!

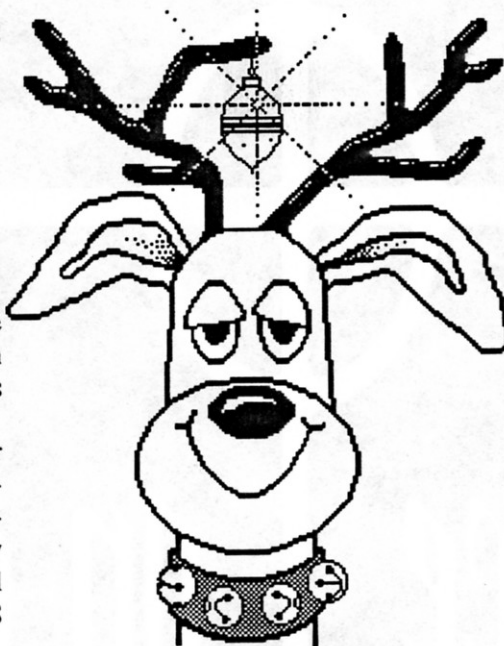
PPPL Holiday Schedule

The Laboratory will be closed from Monday, December 24th through Tuesday, January 1.

December 24 — University Holiday
 December 25 — University Holiday
 December 26 — Laboratory Closing
 December 27 — Laboratory Closing
 December 28 — Laboratory Closing
 December 31 — University Closing
 January 1 — University Closing

Staff members may choose to take the three Laboratory closing days as vacation or they may use their two Option Holidays in conjunction with vacation.

Exempt staff members will receive their December paycheck on Thursday, December 20; Biweekly checks will be distributed on Friday, December 21; Hourly staff can pick up paychecks in the Payroll Office, Mod II, on Friday, December 28 from 10:00 a.m. until 2:00 p.m.



TRANSITIONS

Retirees

Willie Mae Holman, of Plant Maintenance and Engineering, retired on October 1 after 18 years of service.

Thomas W. Dawson, an electrician with the Laboratory for 9 years, retired on October 1.

Births

A son, **Coerte Russell**, was born to **David Voorhees**, of the Engineering and Scientific staff, and his wife Karen, on November 21.

A daughter, **Sara**, was born to **Eric Thorsland**, and his wife Sandy, on December 11.

A daughter, **Margaret**, was born to **Tony Bleach**, of the Accounting Division, and his wife Neile, on December 12.

PPPL Conference Rooms

Room	Capacity	Contact	Phone
C-Site			
LOB Auditorium	284	Pat Buggs	2750
LOB, 3rd Floor (TFTR) (B318)	40	Kay Collins	2202
Director's Conference Room (B331)*	30	Gloria Cain	2103
DOE Conference Room (B252)	30	Sarah Thomas	3711
The Commons (LOB, 2nd Floor)	20	Pat Buggs	2750
Theory Conference Room (A168)	40	Terry Greenberg	2629
Theory Lounge Area (Rm. 150)	12	Terry Greenberg	2629
Procurement Conference Room (Rm. 111)	20	Eugenia Spears	2428
PBX Conference Room (S213)	30	Madge Mitas	3100
X-Ray Laser Conference Rm. (Rm. 245)	15	Diane Schulte	3277
RF Conference Room (Rm. 245)	15	Virginia Baunach	3164
Computer Conference Room (B229)	30	Beth Ann Reardon	2416
New Engineering Wing			
Conference Room (Rm. 143)	15	Jean Salerno	3003
New Guggenheim			
Conference Room (Rm. 119)	30	Gail Marshall	3517
Conference Room (Rm. 206)	15	Gail Marshall	3517
Aero Lab			
Conference Room (Rm. 12)	20	Candice Whiteside	2167

*Subject to Director's need

CLASSIFIEDS

For Sale

Hammond Spinnet Organ — Upper keyboard, 44 keys; lower keyboard, 44 keys; pedal keyboard, 13 pedals. 16', 8', and 4' voices including Tibia, Cello, Diapason, Violin, and Trumpet. Four levels of reverb. Three levels of vibrato plus acoustic tremolo (Leslie-type speaker). \$250. Call Carol, ext. 2754.

Desk — Metal desk with typewriter return. \$50 OBO. Call Ellen, ext. 2757.

Found

(To identify and claim the following items, call Verna Wyman, ext. 2501.)

Sweater — Men's slip-on, 100% virgin wool. Found end of October in the New Engineering Wing, conference room 143.

Computer — Radio Shack Pocket computer (without PPPL/government sticker) found in a C-Site garbage bin around the end of August (the time of the College Road move).

