

Rush D. Holt New Assistant Director

by Phyllis Rieger

Rush D. Holt joined the Laboratory on August 7 as Assistant Director of PPPL. He reports to Director Harold Furth and replaces Dr. Mary Shoaf who recently retired.

"I'm impressed with the dedication, competence, and friendliness of the people here at PPPL," said Dr. Holt who holds a Ph.D. in Physics from New York University and a B.A. in Physics from Carleton College in Minnesota.

"As Assistant Director, I'll be responsible for a variety of internal and external administrative matters, including government relations, with frequent trips to Washington," explained Dr. Holt. But that's nothing new for him since he spent the last two years at the State Department there as Chief of the Nuclear and Scientific Division of the Office of Strategic Forces Analysis.

Commuting long distances is a way of life for Dr. Holt who spent two years going from his home in Wilmington, Delaware to Washington, D.C. and who now crosses three states to come to PPPL. "I've just bought some books on tape to help ease the commute, and we may move before long," he said.

Before his stint in Washington he taught for nine years at Swarthmore College, near Philadelphia. In 1982-83, he spent a sabbatical as a Congressional Fellow of the American Physical Society (APS). Currently, he's a member of the APS Panel on Public Affairs.

Dr. Holt's principal areas of physics research have been solar magnetic fields and fluid mechanics. He's been a visiting researcher at the Woods Hole Oceanographic Institution in Massachusetts, the National Solar Observatory at Kitt Peak in



(Photo by Dietmar Krause)

Rush Holt joined the Laboratory as Assistant Director in early August. In this position, Dr. Holt will have a number of important internal and external administrative responsibilities, including government relations. Pictured with Dr. Holt is his secretary Gloria Cain.

Arizona, and the National Center for Atmospheric Research in Boulder, Colorado.

A native of West Virginia, Dr. Holt said, "I've lived in about ten different states. In my free time, I like to sail and to work on carpentry projects at my cabin in the Adirondack Mountains. I also enjoy tennis, although I haven't played for a while. I'd like to take it up again." In the 1970's, Dr. Holt was a champion on the TV show Jeopardy.

His unusual first name, Rush, is a family tradition. "It was my father's and his

grandfather's name, too, and we were named after Dr. Benjamin Rush, a Philadelphia physician and political gadfly."

Dr. Holt's family includes his wife, Margaret, a physician who practices internal medicine in Philadelphia, and their three children, "who're now out in the world."

He said, "I am pleased to join my colleagues at PPPL in promoting magnetic fusion and to help PPPL retain its place as the world's preeminent center for plasma physics." *

PPPL's 'New Heroes'

by Phyllis Rieger

Dick Wieland and Jane Murphy are heroes, new heroes to be more exact. The Smithsonian Institution honored these two members of PPPL's TFTR Physics Program Division as finalists in the Computerworld Smithsonian Awards for Innovative Use of Information Technology.

According to the Institution, "Information technology is becoming the largest industry in the world. The public honoring of visionary use of technology establishes a tradition that inspires responsible implementation of this powerful tool. Making heroes of creative users both personalizes and demystifies technology, allowing it to be a positive player in our collective vision of the future."

Nominations for the awards were put forward by a select group of computer industry leaders from some of the best known hardware and software companies in the country. MINGL (the <M>ighty <ING>res <L>ocus System) was one of the entries in the competition. Dick and Jane developed MINGL as a means of collecting and managing diagnostic data and transport code results from TFTR. It uses INGRES, a commercial relational data base product, as its engine, so to speak, for retrieving and updating data. It provides the interface for moving TFTR data, which is stored in various formats on our computer system, into the central data base. Once the data is in the data base, tools like LOCUS are used to access and analyze that data.

"We wanted to provide an environment where users could examine, compare, and analyze any laboratory data," said Dick. "We also wanted to make it easy for novice users to gain access to the data." PBX-M uses it as well for some of its data bases.

At present, TFTR has logged over 40,000 shots. A typical shot results in about 10 million pieces of data which are stored on the computer. In order to make sense out of this wealth of information, physicists need sophisticated data analysis tools. With MINGL they can extract a subset of the shot data, such as plasma current, beam power, and confinement time for all shots. Then LOCUS allows them, for example, to select those shots with plasma current equal to 1.4 MA and

plot the plasma confinement time against the neutral-beam power. This enables TFTR physicists to test theories of the plasma confinement. Such theories can be used to guide future experiments on TFTR and are a crucial component in the design of future machines, such as CIT.

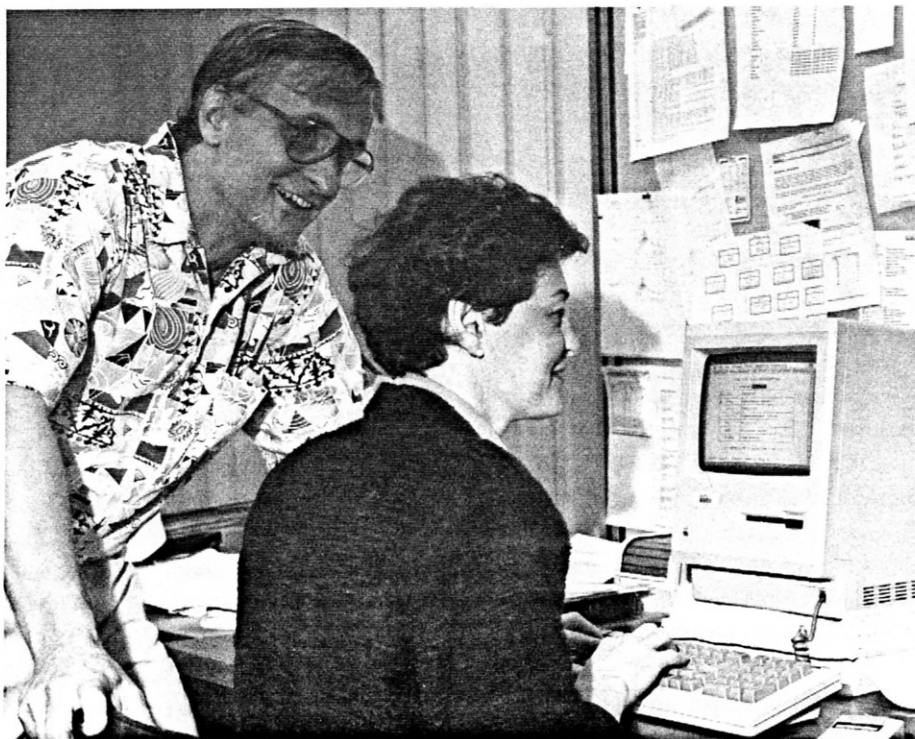
Dick and Jane pointed out that while every laboratory engaged in magnetic fusion research has some system for storing, examining, and analyzing data, none is as comprehensive and powerful at the upper levels of data analysis as PPPL's. Other laboratories have expressed an interest in using MINGL, and an exportable version currently is being developed.

They competed in the "Energy, Natural Resources and Agriculture" category, and as one of ten finalists in that category were honored at an awards dinner in New York City. The winners will participate in an information technology exhibit which will open in 1990 at the Smithsonian Institution's Museum of American History. Dick said, "Although we didn't win the top prize, we were pleased to be chosen as finalists for the Award."

Dick has been at PPPL for five years in the TFTR Data Analysis Branch of the TFTR Physics Program Division. He came here from Oak Ridge National Laboratory where he had worked on the ISX-B tokamak program there in data analysis and modeling for seven years. He holds a Ph.D. in nuclear physics (which "I got a long time ago," said Dick) from Yale University which is where he got started in data manipulation and modeling. Now he specializes in the development of data-base-related software for TFTR.

Jane's been at PPPL for 15 years. "I started as a programmer in the Data Acquisition Section when ATC (Adiabatic Toroidal Compressor) and FM were running and the Princeton Large Torus was under construction. I'm now a member of the TFTR Data Analysis Branch and one of my primary responsibilities is the data analysis program, LOCUS," explained Jane. In addition to her job at PPPL, she is also working on her master's degree in computer science at Drexel University in Philadelphia.

Congratulations to PPPL's new heroes!



(Photo by Dietmar Krause)

Dick Wieland and Jane Murphy were finalists in the Computerworld Smithsonian Awards for Innovative Use of Information Technology. Their computer program "MINGL," used to collect and manage diagnostic data and transport code results from TFTR, was one of the entries in the competition.

PPPLers Bring Civil War to Life

by Phyllis Rieger

Sometimes Joe Majeski lives in the past. He can be seen talking with Abraham Lincoln or drilling with soldiers dressed in gray with swords at their side. The burly electronics technician, a Civil War buff, becomes a Confederate soldier living his life as the militia would during the 1860's.

"Sometimes I walk up to 15 miles a day in hot, muggy weather wearing a wool uniform and lugging 40 lbs. of equipment," explained Joe who it said it was not uncommon to trek as many as 37 miles in one day during those dire days.

"We sleep in tents and cook over fires," said Joe. "There's even one regiment that just sleeps under the stars with blankets. That's how it really should be."

During a re-enactment men drill, march, and fire. Interspersed with the drilling are explanations of weaponry, uniforms, camp routines, punishments, and cooking.

Recreating the life of a soldier also means reliving the battles, using real cannons, muskets (but just gunpowder no bullets), and swords. "Some men even have authentic equipment," he said. He explained most Civil War buffs collect some kind of memorabilia from that era. He doesn't collect himself.

Joe is a sergeant in the 12th Georgia Volunteer Infantry Regiment, first mustered in 1861. His fellow participants come from nine different states and although some battle re-enactments take place in New Jersey, it's not unusual for Joe to travel five to six hours for an event. "Many are held in West Virginia, Virginia, and Maryland, but I've been as far south as Alabama," he said.

Joe pointed out that New Jersey almost joined the 11 states of the Confederacy that seceded from the United States (Joe says for information about this see the book "Succession in the Mid-Atlantic States").

New Jersey passed a resolution condemning President Lincoln for starting the Civil War and the State contributed two generals to the Confederate forces.

When Joe's not reliving the Civil War, he's reading or researching it. A book he

".....recreating the past means access to adventure, fun, and learning."

just finished is "History of the Doles-Cook Brigade" by Henry Thomas which is the history of the 4th, 21st, 12th, and 44th Georgia Infantry.

Why would anyone want to recreate Civil War? "It's a time in history that always fascinated me," said Joe. "It was an unusual chapter in our Nation's past, a grassroots war that often pitted family against family." He said many participants are veterans of various wars although he isn't.

"Members of our regiment come from all walks of life, and it's just a lot of fun, kind of a club," said Joe whose 17-year-old son, Chris, joins him in his portrayals as a corporal of the infantry. "It's a unique way for Chris to learn first-hand about history," his dad explained.

Besides his son, Joe's supervisor, Carl Szathmary, sometimes joins him although Carl is with the Union forces of the 110th Pennsylvania Volunteer Infantry Regiment. "I've always been an avid reader of Civil War literature," said Carl. "For about two years I've been actively involved in re-enactments including the 125th anniversary battle at Gettysburg last year. Reliving the battle is like being transported by a time machine to that place and actual time. During the re-enactment, I didn't even really see the 65,000 spectators because I was so engrossed in what I was doing."

Carl explained, "It's interesting and fun to recreate the battles, but you can also feel the horror, death, and destruction that took place."

Joe pointed out, "You do have to pay attention to what you're doing. Sometimes people do get hurt."

Continued on Page 4



Joe Majeski, standing at the far right, is a Civil War buff. He participates in about 15 re-enactments a year. During a re-enactment men drill, march, and fire and learn about weaponry, uniforms, camp routines, punishments, and cooking.

In early August, Joe and Carl were part of an encampment and re-enactment at Batsto Village in south Jersey. Joe organized this two-day event which even included the set-up of a full war hospital, ministers who conducted services, and photographers who took pictures just as they did during Civil War times. "Governor Kean signed a proclamation commemorating this re-enactment which celebrated the 125th Anniversary of the Fourth Year of the Civil War," said Joe who participates in about 15 re-enactments a year.

"Joe and I have discussions on how we would have directed our forces during a battle or various tactics that we would have used if we were in charge," said Carl. "We've had some interesting conversations."

These two PPPLers dispel the notion that history can be dull. For them, recreating the past means access to adventure, fun, and learning. ✱



Carl Szathmary has been involved in Civil War re-enactments for about two years. He's with the Union forces of the 110 Pennsylvania Volunteer Infantry Regiment.

Athletic Teams Budgets Due

Athletic teams wishing Morale Fund contributions must submit proposed budgets to Bobbie Forcier, LOB 172, as soon as possible. All requests for funds should include the following:

- Team roster.
- Requested amount.
- A breakdown of anticipated expenses.
- Name of person to be in charge of athletic team during FY90.

Please contact Bobbie Forcier, ext. 2101, if you have any questions. ✱

Safety Training

The Occupational Safety Branch has scheduled the following safety training courses for October:

<u>Course</u>	<u>Date/Time/Location</u>
Confined-Space Entry	10 Oct, 9:00-11:00 a.m. Safety Trailer D41-16
Radiation Safety Training	17-19 Oct, 8:30 a.m.-12:00 noon Training Trailer D41-5
Forklift Operator Training	17 Oct, 8:45 a.m.-12:00 noon Safety Trailer D41-16
Fire Extinguisher Training	26 Oct, 9:00-10:30 a.m. Safety Training Trailer

Employees must obtain permission from their immediate supervisor to attend these classes. Supervisors should call Mary Ann McBride at ext. 3468 to enroll their employees. Employees should call Mary Ann for directions to the trailers.

Basic Safety is offered every Monday at 1:30 p.m. in the Safety Trailer D41-16.

FIRE PREVENTION WEEK

OCTOBER 8-14, 1989



BIG FIRES

START SMALL

KEEP MATCHES & LIGHTERS
IN THE RIGHT HANDS.



**National Fire Protection
Association**
Quincy, Massachusetts 02169

Our best story ideas for HOTLINE come from you. So if you have an idea for an article, call Carol Phillips at ext. 2754.

The PPPL HOTLINE is issued by the Princeton University Plasma Physics Laboratory, a research facility supported by the United States Department of Energy. It is primarily an internal publication. Correspondence and requests to reprint material should be directed to Carol Phillips, Editor, PPPL HOTLINE, P.O. Box 451, Princeton, NJ 08543 or telephone 609-243-2754; Interoffice correspondence should be addressed to Room B366, James Forrestal Campus, C-Site.

Produced by Carol Phillips.