PPPL
PRINCETON PLASMA PHYSICS LABORATORY
HOTLINE

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Benefits of Red Cross Blood Services
Questions and Answers

Most of us know what happens when the Red Cross visits PPPL: You roll up your sleeve and put your feet up for 20 minutes or so. At the end of the day they pack up boxes of donated blood and promise to return for more in six months.

But where does it go? And how do you get it back if you ever need it? What about tests for diseases? Do they really work? And what what would happen if something were wrong with your blood?

With the biannual blood drive scheduled for October 11, we thought you'd be interested in some questions that go beyond "Have you eaten today?" and "Have you recently traveled out of the country."

PPPL recently interviewed Jim Moffitt, Recruitment Representative, American Red Cross Penn-Jersey Blood Services, about these and other issues.

1. If you ever need blood, what are the options?

If you can anticipate the need for blood, you may have choices to consider. Jim Moffitt says that the very first step is to consult a physician and ask about your alternatives. Depending on the individual circumstances, you may be able to decide among the following options:

General Supply: Most often, people receive blood which has been collected by the Red Cross at blood drives such as the one in which PPPL participates. (In this area the Penn-Jersey Chapter provides more than 380,000 units per year to some 100 hospitals.) Before being issued to a hospital, each unit is subjected to a battery of tests to insure that it is safe and free of contamination.

Directed Donation: Family members and friends often want to direct their donation to a specific person. Because the requests for this service has greatly increased over the past few years, the Red Cross has simplified the process required to do this, but certain steps must still be taken.

✓ A **Directed Donor Certificate** must be obtained *from the hospital where the blood will ultimately be used.* While the donor needn't give at that location, the certificate must be issued from there.

✓ With the certificate in hand, donors may then contact the Red Cross in their area to determine where and when they can most conveniently make a donation. This can be done at a bloodmobile, a Red Cross office, or at any number of the scheduled blood drives. The blood will then by transported to the proper location.

Donors should understand, however, that while they may want to help a friend or relative by donating blood, only blood which is compatible with that of the patient's can be used. Jim Moffitt also

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16 PPPL Papers Presented at IAEA

Princeton Plasma Physics Laboratory was well represented at the 13th International Atomic Energy Agency (IAEA) conference on Plasma Physics and Controlled Nuclear Fusion Research held this year in Washington, D.C. from October 1 to 6.

Twenty-seven PPPL employees were selected by the Office of Fusion Energy to represent the United States at this semi-annual symposium which is attracting nearly 600 of the the most prestigious fusion experts from around the globe. An additional 19 employees attended the conference as observers.

And in a competitive process which determined the conference's presentations, the international selection committee chose 16 papers from PPPL. Speaking honors will be shared with fellow fusion

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Red Cross — continued from page 1

emphasizes that due to the sophistication of testing, statistically it is just as safe to use the General Supply blood as it is to use that collected through the Directed Donor program.

IAT (Intra-Operational Autogenous Transfusion): Many large hospitals have the ability to recycle a patient's blood during a surgical procedure by processing it through a machine which filters, cleanses, and pumps it back into their body. When this technology is used, no outside blood needs to be introduced during an operation. Smaller hospitals can also provide this service by renting the technician and machinery.

Auto Donation: For selected procedures and those which can be scheduled in advance, patients should ask their physician about the possibility of donating their own blood, thus eliminating the possibility of post trans reactions. Individuals who quality can have between four and five units of blood drawn prior to the operation. (The shelf life of whole blood is roughly 40 days.)

2. What about screening and tests?

Probably one of the least understood steps of the blood donation process is that of screening and testing. First of all, testing is done to *all blood*, regardless of whether it was gathered from a General Supply process, such as in a bloodmobile, or as a Directed Donation, such as might occur when giving to a family member.

This process begins, however, before the blood is ever drawn.

A verbal question and answer session between the nurse and volunteer addresses basic questions which help to determine if a donor is acceptable or not. Disqualification at this stage can be for a reason as simple as having a common cold or for something as significant as having been exposed to malaria.

After the blood has been collected it goes through a series of tests to check for diseases such as Hepatitis, Syphilis, and AIDS. As recently as three months ago a test was approved by the Federal Drug Administration (FDA) to test for Hepatitis non-A and non-B (now called Hepatitis C). According to Jim Moffitt, however, serious diseases such as Hepatitis B are rarely found in test results — not because tests are inaccurate, but because medical history questions asked during the screening process have already identified individuals at risk of having these diseases.

Testing for AIDS is less than definitive, but since testing began in 1985, not one unit of AIDS contaminated blood collected in the Penn-Jersey region has been given to a patient. While no testing exists for the AIDS virus, what can be detected as soon as six to eight weeks after contracting the disease, is a specific antibody produced by the body to fight the virus. Moffitt says that the body's reaction can be compared to mobilizing an army of soldiers to fight an enemy, which makes detection of the AIDS antibody very accurate.

Last Chance: In recent years all donors have been offered an 11th-hour opportunity to bring the use of their blood to a halt. By making a confidential call and anonymously giving a reference number which corresponds to the donated blood, it will be immediately pulled — no questions asked. Given the social stigma associated with exposure to certain diseases, this provision allows individuals the chance to think honestly about the decision to expose others to their blood, even if for purely precautionary reasons.

What if . . . ? While most of us have no reason to worry about the results of these tests, what if there were a problem? Would you be notified if your blood showed a positive test for one thing or another, and if so, how would it be handled?

Moffitt says that the Red Cross has a special program which specifically addresses this sensitive matter. Anyone who has donated blood that results in a positive test for anything such as Hepatitis B or the AIDS antibody is discretely and confidentially contacted. A registered letter will be sent which contains no information except a request that the donor contact the Red Cross. Absolute confidence is adhered to — no family will be given the message over the phone and no one in a work environment will be made aware of the situation.

3. How much does blood cost?

Patients are never charged for blood which has been donated to the Red Cross. This does not mean, however, that no costs are incurred. The Red Cross passes on their expenses to hospitals which in turn bill patients. The most recent calculation estimates that each unit of blood costs the Red Cross $61.10. This includes donor coordination, bloodmobile operations, laboratory testing and processing, hospital distribution and administrative and support costs.

If you ever receive blood and are billed for its replacement, contact your local Red Cross and they will arrange to replace it at no cost to you.

Free Answers

If you have questions about a Directed Donation, giving blood in general, or how blood is tested, call **1-800-26 BLOOD.**

Have you called ext. 2272 to register for the October 11 Blood Drive?

— E. Webster

Volunteers Lie Down on the Job

As volunteer opportunities go, blood donors have it pretty easy. It's fast, simple, and a sure-fire way to feel immediate gratification. . . . Not a bad return on a 20-minute commitment that can be made lying down! And because blood may be separated into several parts before being distributed to hospitals and patients (packed red cells, plasma, platelets, whole blood cells, and anti-hemophilia factors), as many as five people may benefit from each donation.

A few of the PPPL employees you'll see with their sleeves rolled up for the October 11th Blood Drive are on page 5.

Dail 2-ASK for Help — Computer User Group is Waiting

Someone among us must think that the Computer User Group operates like a mail-order catalog business. The story goes that an employee suspected a problem with his circuit board, proceeded to remove it, placed it an interoffice envelope and mailed it to the User Group for repair. When it reached its destination, it was, indeed, broken.

For obvious reasons, the Group prefers to make house (office) calls.

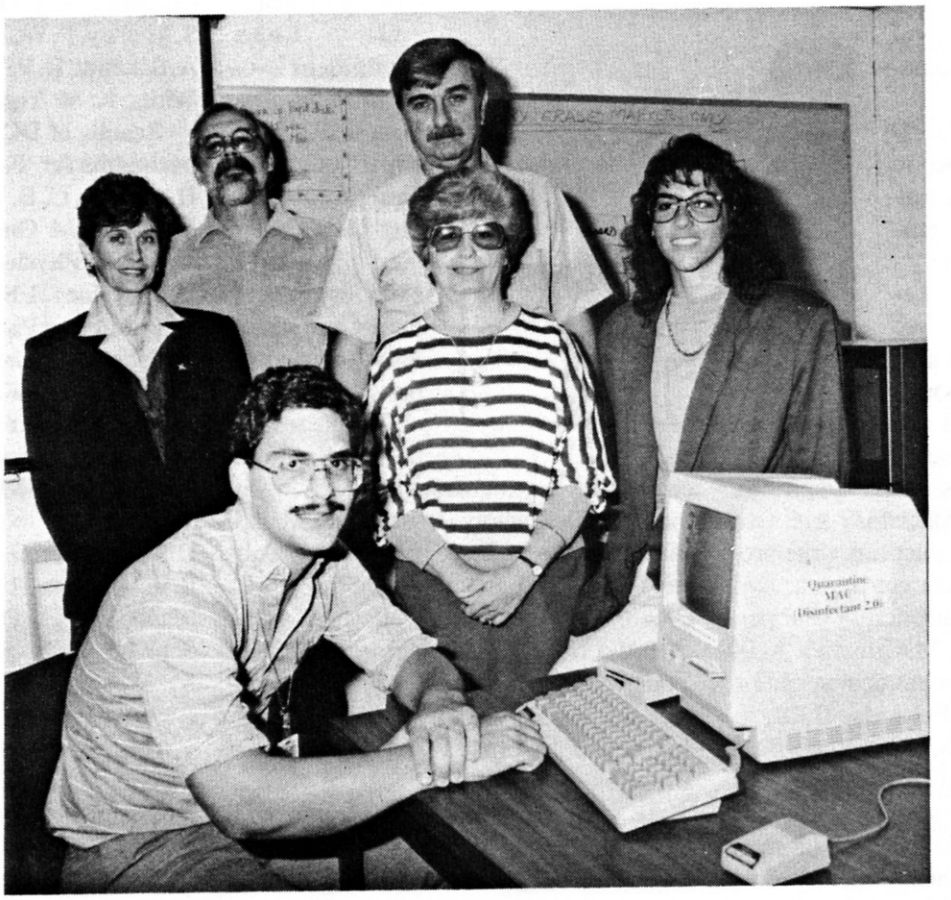
Started just over a year ago, the Microcomputer User Group is headed by Sally Connell and includes a staff of specialists in Macintosh and IBM machines.

Anne Stepanek's (formerly Palladino) specialization is IBM and compatible personal computers. Andy Soccio services Macintoshes and is an Apple-trained technical representative. Ginny Zelenak answers many of the software questions and coordinates service calls that are received on the computer hotline. Jack Abraitis is a programmer who specializes in scientific applications. And Judy Benson assists Zelenak and Abraitis.

But you don't need to worry about contacting the right person for help; all calls are channeled through one phone number, extension 2275 (2-ASK).

Anyone needing assistance with hardware (the machine itself), software (the programs that are run on the computer such as Word Perfect, Microsoft Word, or Excel) or general questions about the operation or capabilities of their computers can find answers to simple and complicated questions by calling the User Group. Many calls are handled on-the-spot with assistance given over the phone. Questions requiring a service call are also attended to quickly, and even during busy periods, assistance can generally be expected within 24 hours.

Questions regarding scientific and engineering computers are handled through the Computer Division and should also be directed to Jack Abraitis who can be contacted by calling ext. 2275 or by sending a VAX mail message to GRIPE.



Computer User Group *— (front) Timothy Riotto, Co-op student from Drexel University, (center) Ginny Zelenak, (back) Sally Connell, Jack Abraitis, Andy Soccio, and Ann Stepanek.*

Photo: JOHN PEOPLES

90A0360

Two years ago the NBI system, which was a dedicated word processor, was phased out and microcomputers took its place. Last August the User Group was formed to service the equipment and inform, educate, and assist users. Currently there are about 970 microcomputers at this facility. Of these, approximately two thirds are Macintoshes and the remainder are IBM/compatibles.

Ann Stepanek says that the User Group typically responds to a combination of questions about hardware and software. Sometimes the problems are as simple as loose cables or cables which are connected to the wrong port (outlet). Other times, she says, the group is asked to do things such as salvage information that appears to be lost — and sometimes the retrievals are successful.

When the water leak occurred in the RF building in June, Macintosh computers were among the equipment that was damaged. Andy Soccio was able to clean the casings and components and restore all of the data.

In another case, an employee called and said his Macintosh just wasn't working right. It was discovered that he had *six* operating systems installed instead of only one. The machine was confused and the user was frustrated, but Andy was able to fix the problem by simply placing five of the operating systems in the trash (Macintosh's term/destination for a file to be deleted).

Stepanek says that computer problems are bound to occur, which is why employees should feel free to call the User Group for help. She said that simply saving files, and saving them frequently, can prevent

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the heart aches of information lost forever. She also suggests paying attention to changes in the way a machine works because what you may be seeing is an important warning sign of a problem about to occur.

While it's important to know that the User Group is here to help during a computer crisis, they are also available to help solve the brain teasing mysteries that computers are notorious for creating.

The following are among the services provided by the Microcomputer User Group:

❑ **Hotline Help (2-ASK)** — One number to call for all requests for support. Responses are normally within 24 hours.

❑ **Computer Resource Center** — Open from approximately 8 a.m. to 5 p.m., Monday through Fridays. Houses IBM and Macintosh machines, scanners, and laser printers. Contains software to convert IBM to Macintosh and vice versa. Macs in the Center are virus protected so outside disks can be checked before risking contamination to your personal machine. Has a Mac running AUX (Unix for Mac). Often has demonstration equipment, currently has a Mac II FX.

❑ **Lending Library & Data Base** —Before ordering software packages, you can try out the programs by borrowing them from the lending library or from someone at the Lab who is currently using the programs.

❑ **Bits & Bytes Newsletter** — This monthly newsletter is prepared by Ginny Zelenak and features a question and answer column, little-known features about frequently used software, information on new equipment and software upgrades as well as notices of classes and demonstrations. Suggestions, articles and comments are welcome.

❑ **Traveling Equipment** — If you need to take equipment on a trip, contact the User Group about the availability of portable equipment.

❑ **Loan Equipment** — Loaner equipment is available while yours is being repaired. The User Group may also have extra equipment for use on a short-term temporary basis.

❑ **Classes** — Ginny Zelenak coordinates the microcomputer training in the Lab. Introductory classes for IBM and Macintosh are offered on request. Advanced classes are also held in-house. (Microsoft Word and Excel classes were recently offered by instructors from Mercer County Community College.) Word Perfect classes are coordinated through Personnel and are offered through Princeton University.

❑ **Repairs** — Repairs are arranged through the User Group. (Repairs are actually done by the Electrical Engineering Division's Calibration Laboratory.)

— E. Webster

IAEA— continued from page 1

experts from the countries of Japan, France, the Federal Republic of Germany, the USSR, the United Kingdom, China, Spain, Australia, Italy, Switzerland, the Netherlands, India, Finland, Sweden, Romania, Czechoslovakia, and Austria.

This year's papers, presenters and authors were:

Recent TFTR Results
D. Meade and the TFTR Group

Local Transport Measurement During Auxiliary Heating in TFTR
S. D. Scott and the TFTR Group

Nonlinear Kinetic Analysis of Fluctuations and Turbulent Transport Due to Tokamak Microinstabilities
T. S. Hahm, S. C. Cowley, G. W. Hammett, R. M. Kulsrud, F. W. Perkins, M. H. Redi, G. Rewoldt, and W. M. Tang

ICRF Heating in Several Regimes on TFTR
J. Hosea and the TFTR Group

Advances in Transport Understanding Using Perturbative Techniques in TFTR
M. Zarnstorff and the TFTR Group and collaborators

Ideal MHD Stability of Very High Beta Tokamaks
M. S. Chance, S. C. Jardin, C. Kessel, J. Manickam, D. Monticello, and others

3-D MHD Studies of Sawtooth Oscillations and Pressure Driven Resistive Modes in Tokamaks
W. Park, D. A. Monticello, E. Fredrickson, B. Grek, K. McGuire, and others

Physics Objectives and Design of CIT
G. Bateman, M. G. Bell, C. Z. Cheng, P. L. Colestock, R. J. Goldston, S. C. Jardin, S. S. Medley, F. W. Perkins, N. Pomphrey, J. A. Schmidt, D. P. Stotler, M. Ulrickson, R. White, K. M. Young, and others

Results of DC Helicity Injection Experiments for Tokamak Current Drive
D. Darrow, C. B. Forest, G. L. Greene, Y. S. Hwang, M. Ono, and others

ITER: Physics Basis
D. Post (for ITER)

Power and Particle Control for ITER
S. Cohen and others

Partial and Full Reconnection During Sawtooth Activity and Disruptions
E. Fredrickson and the TFTR Group

Limiter H-Mode Experiments on TFTR
C. Bush, N. Bretz, K. McGuire, G. Taylor, R. J. Goldston, E. D. Fredrickson, D. K. Mansfield, H. Park, A. T. Ramsey, J. Schivell, D. S. Scott, B. Stratton, E. J. Synakowski, H. H. Towner, and the TFTR Group

Influence of Sheared Poloidal Rotation on Edge Turbulence Dynamics and Access to Enhanced Confinement Regimes
H. Biglari and others

Alpha Particle Effects on Global MHD Modes, Alpha Particle Transport in Ignited Tokamaks, and Kinetic Effects on the m=1 Internal Kink Mode
C. Cheng, R. B. White, L. Chen and others

PBX-M Research Progress: Approach to Second Stability
N. Sauthoff, N. Asakura, R. Bell, M. Chance, P. Duperrex, H. Fishman, R. Fonck, G. Gammel, G. Greene, R. Hatcher, A. Holland, S. Jardin, T. Jiang, R. Kaita, S. Kaye, C. Kessel, H. Kugel, B. LeBlanc, F. Levinton, J. Manickam, M. Okabayashi, M. Ono, S. Paul, E. Powel, Y. Qin, D. Roberts, S. Sesnic, and H. Takahashi

— E. Webster

A Pat on the Back to . . .

Blood Donors

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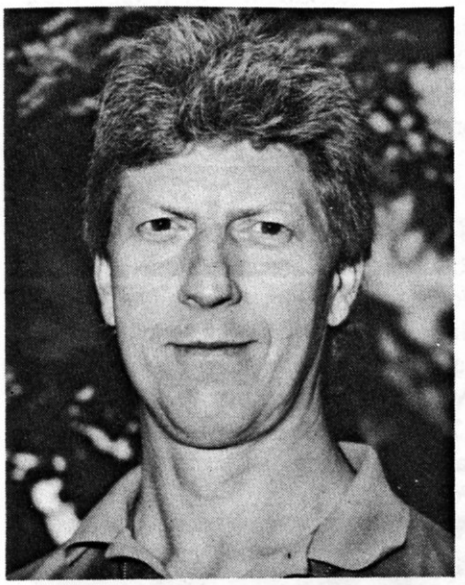
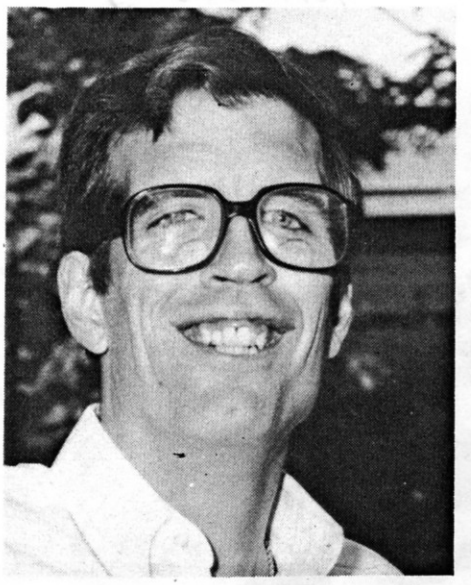
Cathy Saville
2-time donor
"I started giving because I knew I was healthy enough and hoped if I ever needed it myself, someone would be there for me."

Beth Reardon
3-time donor
"You look at those posters and think you want to help someone out. This past year two of my nieces needed blood, so it really brought an appreciation for donors close to home."

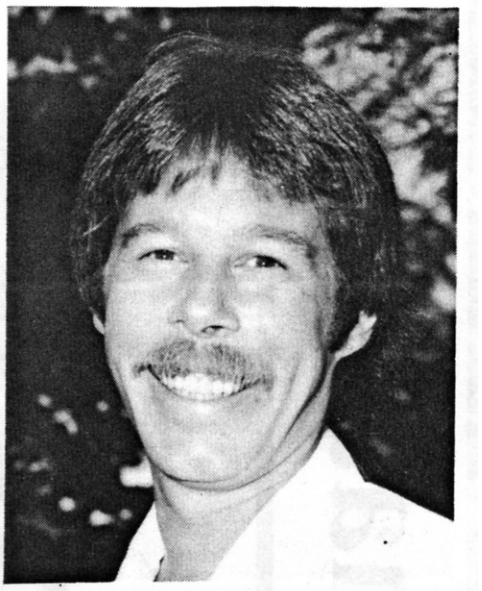
Dr. Caruso
10-time donor
"There really isn't any other way to give the kind of help blood provides."



Trevor Bayes -12
29-time donor
"I get a regular call from the Red Cross every 56 days or so and go down to give. I know it helps someone — no matter who it is. It's really everyone's duty. It's just the right thing to do."



Scott Larson - 2
51-time donor
"It's a good way to help people, and you don't even know who they are. . . . And I like the donuts!



Greg Tompkins - 5
"If Scott's given 51 times, I've given 52!"
"For about the past 10 years I've given blood every eight weeks. It's a way to show human kindness and it takes very little effort."

Photos: JOHN PEOPLES

What's Happening at PPPL?

On September 17, representatives from the Japan Atomic Energy Research Institute (JAERI), other Japanese institutes and companies were given a full day orientation and tour of the Laboratory.

90A0346-14 Photo: JOHN PEOPLES

Dr. H. Guy Stever, head of the Fusion Policy Advisory Board (FPAC), former science adviser to President Gerald R. Ford and former head of the National Science Foundation, spoke at the September 26 PPPL colloquium about the results of the recently concluded FPAC report.

Photo: JOHN PEOPLES

90A0363-3

Fred Dylla, a research physicist who has been with PPPL for 15 years, recently left the Laboratory in a move which will take him to Newport News, Virginia and a job with CEBAS.

90A0359-10 Photo: JOHN PEOPLES

NOTICES

Upcoming Colloquia

10/10 Victor Golant, Ioffe Institute (USSR)
"Status of Fusion Research at Ioffe Institute"

10/17 Horst Wobig, Garching (Germany)
"Progress in Stellarator Research"

10/31 George Wicks, Savanna River
"A Nuclear Waste Vitrification & Safe Deposal"

11/7 Robin Herman
"Fusion Research, A Historical Perspective"

Colloquia are in the Gottlieb Auditorium at 4:15 p.m., unless otherwise noted.

Shoemobile Returns

The Iron Age Shoemobile will visit PPPL on Thursday, October 11, and Friday, October 12. It will be located at Receiving #3 from 8:00 a.m. to 12:00 noon and from 12:30 to 4:30 p.m. both days.

Shoe withdrawal forms (available from the C-Site stockroom or from Marie Steer in Spare Parts, Inventory Control Module, C-Site, ext. 3476) must be signed by a responsible cost center supervisor and presented for each purchase.

Jeanes Called Up

Ray Jeanes, Lieutenant Colonel in the Air Force Reserves, has made eight overseas flights to transport military equipment and supplies, including four trips into Saudi Arabia. From September 4 to 22 he logged 17,500 miles. He is now back at the Laboratory on an on-call basis with the Air Force.

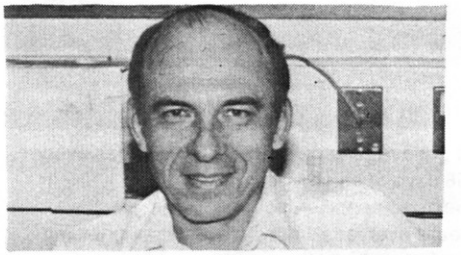
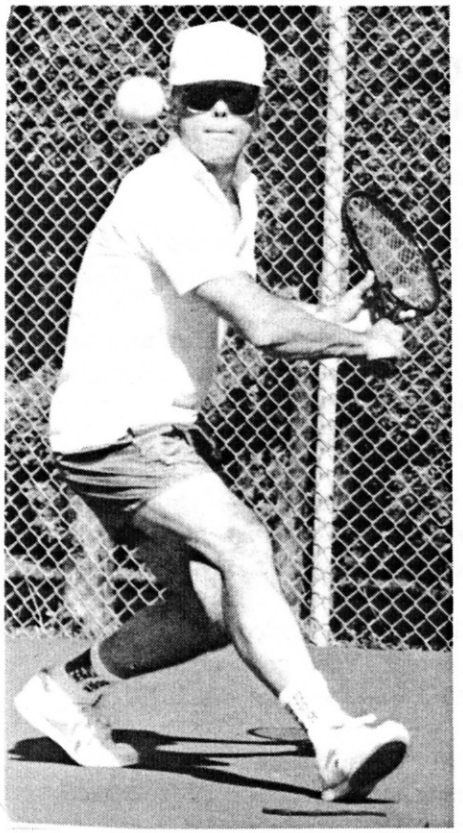


Photo: ELLEN WEBSTER

Annual Fall Tennis Tournament Swings Again



David Ignat in a preliminary tournament match. Photo: H. TAKAHASHI

When fall arrives you can count on feeling a nip in the air and gaining an hour of sleep. You can also look forward to the chance to be a spectator at the 14th annual Melvin B. Gottlieb Tennis Tournament.

And as in the past, onlookers are invited to witness the competition among Laboratory staff, their spouses and children as the finalists vie for first and second place prizes in Divisions A and B and the consolation round.

Hiro Takahashi, director of the Melvin B. Gottlieb Tennis Tournament.

Tournament director Hiro Takahashi says that the idea for the event began a decade and a half ago when as an avid player he began looking for friendly on-the-court competition. It occurred to him that one of the best ways to accomplish that might be to organize a tournament and see who showed up.

And competitors have been turning out ever since. About two dozen participants signed up for the first tournament; last year it was up to 41; and this year 32 registered to play.

The first year Sandy Dreskin was the overall winner. But in subsequent competitions first place in the men's division has volleyed between Hiro Takahashi and Jim Bialek. The question remains to be seen if one of these two competitors will walk away with the title again this year, or if a new winner will emerge from the ranks.

The women's title, when a separate tournament was held, has gone to Janet Roberts and Marilee Thompson.

The tournament has been supported in recent years by the Laboratory's morale fund and by registration fees which help defray trophies and court rentals for the first two rounds of the competition.

Hiro Takahashi says that besides the competitive spirit that is at the heart of the tournament, he also hopes that the matches encourage people to get out and take advantage of a sport that is relatively easy to participate in — one that can be played both by youths and by individuals well into their eighties. Since tennis requires no heavy equipment like that essential to wind-surfing or skiing, a person need only pick up a racquet and sneakers in order to play the sport.

Takahaski says that even though no official tennis club exists at the Laboratory, employees can play as often as they like by taking advantage of the Princeton University courts. In the summer months outdoor courts are available on either a season rate or on an hourly basis.

During the winter PPPL employees can use the six indoor courts at Jadwin Gym for $4 per hour per person. A $10 reservation permit (available in mid-October at at the gym's box office) allows you to make phone reservations up to three days in advance. This compares favorably against alumni and consultants who can reserve only two days in advance and the general public which can only hold a court only 24 hours ahead of time.

Anyone interested in attending the tennis tournament finals or finding out more about the competition may contact Hiro Takahashi at ext. 2809 or Madge Mitas at ext. 3100. **— E. Webster**

A limited number of booklets explaining tennis and other athletic facilities offered to PPPL employees are available in the ***HOTLINE*** *office and may be requested by calling ext. 2757, or you may call the box office directly at 258-3538 with specific questions.*

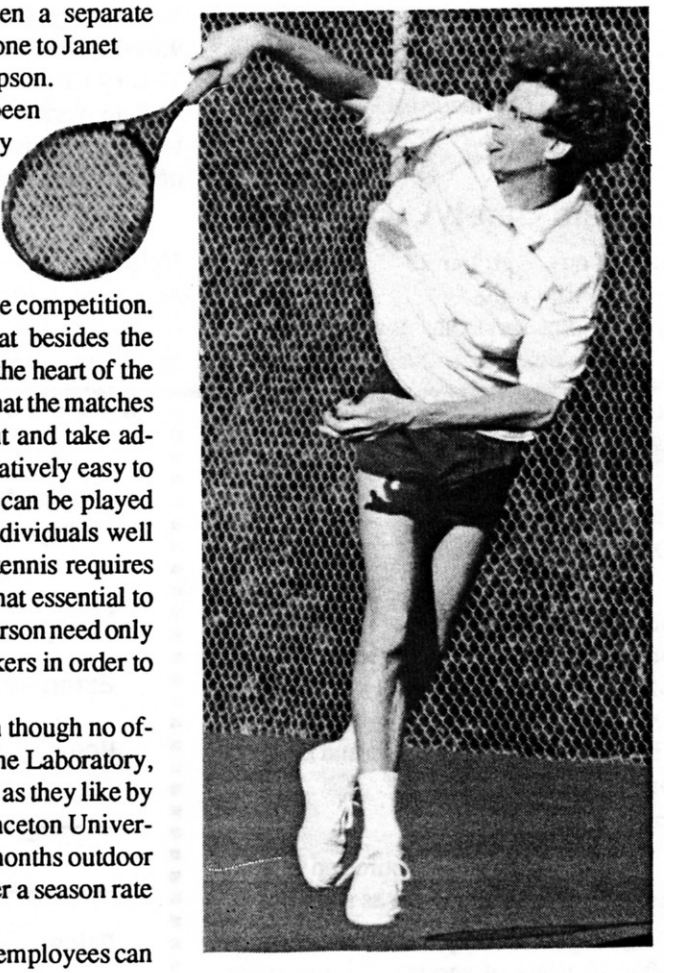


Photo: H. TAKAHASHI

October Safety Classes

Safe Handling of Cryogenic Liquids

Monday, October 15
2:30-3:30 p.m.

Personnel will be trained in the characteristics, hazards, safe handling practices and Lab policies associated with cryogenic liquids.

●

Safe Handling of Compressed Gasses

Tuesday, October 16
2:30-3:30 p.m.

Personnel will be trained in the classification , hazards, the safe handling practices, and Lab policies associated with compressed gases.

●

Confined Space

Thursday, October 18
1:30-3:30 p.m.

Employees will be trained regarding the hazards associated with confined spaces and the proper procedures for entering a confined space.

●

Basic Safety

Tuesday, October 23
3:00-4:00 p.m.

This one hour class is required for new employees within the first 30 days of employment and subsequently for all employees every two years. The class includes information on general safety items as well as environmental and radiation information and the New Jersey Right-to-Know law.

●

Basic Electrical Safety Training

Monday, October 22
1:30-3:30 p.m.

This course reviews the effects of electricity on the human body, energy courses, conversion and modification equipment, energy storage devices, energy uses, conductors protective procedures, wiring methods, devices and tools, and emergency procedures. It is required for all employees in the electrical field.

●

Laser Safety Training

Wednesday, October 31
9:00-11:00 a.m.
Theory Conference Room

Safe work procedures will be taught to those who use or work in the vicinity of Class III or IV lasers.

Unless otherwise indicated, courses are held in the D-Site Safety Trailer. Preregistration is necessary and can be made by calling Sue Hill at ext. 2526.

TRANSITIONS

Obituary

Carol Sherbet, a 16-year PPPL employee who was a member of the TFTR project as Operations Information Center Manager, died unexpectedly on Monday, October 1. She is survived by her husband Harry, two children, Barbara and Eric, and one grandchild.

Retirements

Willie Mae Holman retired on October 1 after 18 years of service as a janitor.

George Kalescky retired on October 8 after 10 years of service. George supervised the electrical shop.

Sell, Buy, Rent, Give Away or Trade

Send your ad to: HOTLINE

Name _____

Extension _____

Item _____

_____

_____

Price _____

FOR SALE

Bike — 25" men's Peugot racing bike. Like new. $175 OBO. Call Sylvia Reissman, ext. 3577.

Bike — 20" boy's bike and 16" boy's bike. Best offer. Call Bob, ext. 3732.

Boat — 12' aluminum boat, including oars, anchor with rope, life jackets, one-man boat loader for car, plus boat dolly. $350. Call Rich, ext. 2312.

Entertainment '91 — Orders being taken for the Entertainment '91 discount book. Call Greg, ext. 3370.

Fishermen — Apelco #450. Paper chart recorder. Very good condition. $75 OBO. Call Joe Ignas, ext. 2673.

Old "Shop Smith" — Drill press, lather, etc. Best offer. Call Joe Stencel, ext. 2529.

Water Bed — Queen size with firm mattress and 4 storage drawers. Excellent condition. Call John Swatkoski, ext. 3601 or 2122.

Moving Sale — Weight set, bench with leg extender, 160 lbs, cast iron, $260 (OBO); closet with drawer, $225 (OBO); black acrylic full-size bed from Japan, headboard has storage space, $480 (OBO). Call Mike (609) 298-1884.

Sofa Bed — Pennsylvania House sofa bed. Blue & tan. Highback. $300 OBO. Call Alan, ext. 3404.

LOST & FOUND

Earring — Gold circular clip-on earring with a white pearl in the center. Call Ellen, ext. 2757.

CAR POOLING

Hamilton Township/Crestwood area — Flexible hours. Generally work 7:30 a.m. to 4:15 p.m., but can modify. Call Stan Troyano, ext. 2199.