

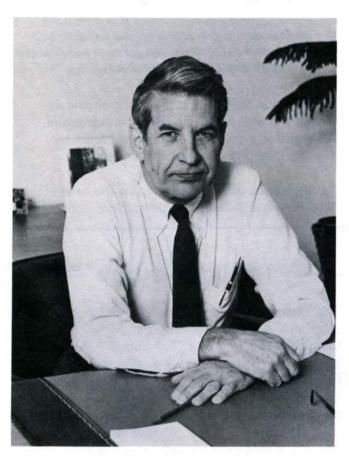
## HOTLINE

PRINCETON PLASMA PHYSICS LABORATORY

Vol. 3, No. 9

March 19, 1982

#### New Associate Director Joins Lab



James W. Clark

James W. Clark of Princeton joined PPL March 8 as Associate Director, filling a newly created laboratory post.

Prior to coming to PPL, Mr. Clark worked for the Chase-Manhattan Bank in New York City, where he initially served as Director of Strategic Planning at the corporate level for four years. He then worked with the bank's Monetary Missions Team, whose responsibilities included devising financial and marketing strategies toward the OPEC nations. Most recently, he was involved in building a national mortgage banking business for Chase.

Mr. Clark holds a degree in history from Oberlin College, and received his master's degree in public and international affairs from Princeton University's Woodrow Wilson School in 1950.

From 1950 through 1970, he was employed by the Bureau of the Budget (now the Office of Management and Budget) in the Executive Office of the President. During that time, he reviewed the budget of the Atomic Energy Comission, and became acquainted with Project Matterhorn/Sherwood.

He recalled meeting Lyman Spitzer, Melvin Gottlieb, Tom Stix and "a number of other people" at PPL in the 1950's. He later handled budgets and legislation for the Air Force and the Department of Defense Research and Development programs, as well as international economics, military and intelligence activities.

In recent years, a side-line interest in astronomy has led to two extra-curricular assignments—membership on AURA aura Visiting Committee to Kitt Peak National Obseravatory, and on the Advisory Committee to Princeton's Department of Astronomy and Astrophysics.

The new Associate Director will "assist the Director and others in dealing with management questions, primarily on the non-technical side." He will be involved in external relations among PPL, the government and private industry.

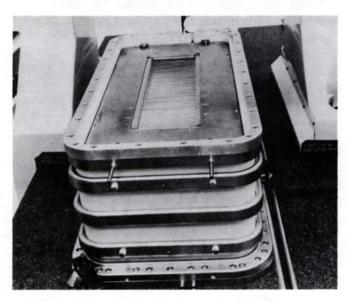
Asked about his goals, he replied that he would like to "work with a fine professional team in making PPL the best-run, scientific organization in the United States.

#### Ion Source Delivered

The two assemblies that comprise the first TFTR ion source were delivered to PPL last month. The arc chamber, manufactured by Lawrence Berkeley Laboratory, was delivered February 11. The accelerating structure, fabricated by McDonnell-Douglas, arrived Feb. 13.

The arc chamber portion of the ion source contains 210 filaments embedded in a copper frame, which serve as a cathode. Three molybdenum plates equipped with gas diffusers function as an anode. Deuterium gas is injected into the chamber, and a 2500-amp current is passed through it, creating a plasma.

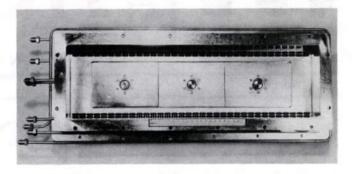
Both ions and electrons approach a multiple-slot accelerator, where the electrons are repelled and the ions are accelerated to form a 65 to 70 amp beam. Four separate grids in the accelerator structure, each with a specified individual shape, help accelerate and focus the ion beam into a specific pattern. The grid area measures 10x40 centimeters, and the grids are changed to 120 kV, 100 kV, -3 kV and 0 kV respectively. The charge decelleration prevents electrons in the neutralizer area from being drawn into the accelerator.



The accelerator portion of the ion source, constructed by McDonnell-Douglas, accelerates the ions in the beam prior to neutralization.

The accelerated beam then enters a neutralizer chamber, filled with hydrogen or deuterium gas. A charge exchange occurs, and the beam-ions are

neutralized. The beam proceeds past a deflection magnet and an ion dump for further purification before being injected into the TFTR plasma.



The arc chamber portion of the ion source, built by Lawrence Berkeley Laboratory. The gas input ports and the gas diffusers are visible in the center of the picture.

Cooling water will be continuously circulated through the arc chamber accelerating structure. The entire ion source will be surrounded by magnetic shielding and electrical insulation.

The ion source will first be used in the neutral beam three-source test prior to installation on TFTR.

#### Tritium Course -

The Technology and Research Departments are cosponsoring a short course entitled "An Introduction to Tritium Handling and Technology". The course is designed to introduce technical personnel at the laboratory to the technology, handling techniques and instrumentation that have been developed for safely working with tritium. The course will be offered in the format of lectures and demonstrations given on two consecutive days, and is planned for April 27–28.

The course will be taught by personnel from the Monsanto Mound Research Facility at Miamisburg, OH. The Mound Facility is the supplier of the Tritium Storage and Delivery System (TSDS) for TFTR. Since 1957, Mound has been one of the primary laboratories for research and development on tritium technology.

Personnel who are interested in taking the course should obtain their supervisor's approval and contact Carl Pierce (ext. 2164) or Fred Dylla (ext. 3199) by March 26, 1982.



Under Secretary Guy W. Fiske (pictured above with Associate Director and Head, Technology Department Paul Reardon) and Director, Office of Energy Research Alvin W. Trivelpiece spent February 19 at PPL, learning about the laboratory's program and projects. Mrs. Fiske and Mrs. Trivelpiece accompanied their husbands to see first hand the work they had read about in The New York Times (January 3, 1982).

#### **Energy Monitors**

The Employee Energy Awareness Committee, headed by Ramon Pressburger, is in high gear. The group is conducting various programs within the laboratory to see where all employees can save energy and eliminate waste.

Steve Ragolia, assisted by Paul Jones, is setting up a building and work area monitor program. Fifteen monitors in various laboratory areas have been enlisted thus far. Monitors will seek out waste and distribute warnings when necessary. A warning will be left wherever a wasteful situation (such as leaving office lights on while out) is observed. The monitors will also report any possible energy saving suggestions within their own particular areas to the committee.

So far, Steve has reported splendid cooperation from all those who have been contacted. More monitors in other areas of the laboratory are needed. If you feel you would like to help, contact Steve at ext. 3098.

#### Benefits Changeover

As of March 1, the PPL Personnel Office has taken on expanded responsibiltiy for the administration of the major employee benefits program for the laboratory. The office had been processing Blue Cross/Blue Shield and Major Medical claims; it has now assumed responsibility for the administration of life insurance, worker's compensation and TIAA/CREF Supplemental Retirement Annuity (SRA) programs.

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Employee questions about any of these programs should be directed to Mary Bersch (ext. 2043) or Len Thomas (ext. 2052). Eleanor Schmitt (ext. 2046) will continue to assist PPL employees with the processing of their medical claims.

These changes are intended to improve benefit services to PPL employees by eliminating the necessity of traveling to main campus to resolve benefit issues. It is anticipated that administration of all University benefit programs for PPL staff will be transferred to the laboratory within the year.

#### **Nursery School**

It's not too early to begin thinking about enrolling your child in the Princeton University League Nursery School next year. There are a limited number of openings available for three, four and five-year-olds, but positions are filling fast.

Parents are contributors in this cooperative school, which holds classes in three, four or five day cycles. The school is in operation from 8:45 a.m. to 11:30 p.m., with an extended day to 1 p.m. as an option.

For further information, call 924-3137 or 921-1129.

#### Seminar Set

William Davall, a crime prevention officer with the Princeton University Proctor's Office, will be the guest speaker at the Secretarial and Office Support Staff's seminar April 6. Mr. Davall will discuss "Personal Safety—Sexual Assault" in the Gottlieb auditorium from 11:45 a.m. to 12:45 p.m.

The seminar will be repeated in the Sayre Hall auditorium from 11:45 a.m. to 12:45 p.m. April 13. Both sessions of the seminar, organized by the SOSS Seminar Committee, are open to all women on campus.



A recurring question put to the Travel Office is, "Why won't the University reimburse travelers for the CDW and PAI on car rentals?" The CDW is the Collision Damage Waiver. A fee is charged (usually \$3-6/day) to waive the customer/driver's responsibility to pay the deductible amount (usually \$300-600) of the rental company's collision insurance in case of accident or damage to the car. With so many University travelers, the University has decided it is more economical to pay this deductible amount if the need arises than to pay the waiver fee on every vehicle rented. If there should be collision damage to the vehicle while you are traveling on University business, the University will pay up to the insurance deductible amount to the rental company.

The PAI is Personal Accident Insurance. The University carries a travel accident travel insurance policy which provides coverage for employees while traveling on University business. Therefore, to pay the car rental insurance fee would be to duplicate costs and benefits. If you want additional coverage, the expense is yours and is not reimbursable.

Probably the contingency that most rental car drivers are concerned about is liability. Rental car companies must carry liability insurance on all vehicles (just as we in New Jersey must on our personal autos), and this insurance cost is included in the basic rental charge. There are limitations: you must be driving the vehicle "as permitted," and the dollar limits are usually \$300,000 per accident, \$100,000 per person, and \$25,000 per property claim. (This is similar to our personal auto liability insurance, and requirements may vary from state to state.)

So what happens if your are sued individually by an accident victim? If you were driving "as permitted", there is no problem. You are covered by the rental company policy up to the stated limits.

What is "as permitted"? Hertz, a standard for the car rental industry, lists eight uses not permitted (although there might be exceptions; make sure any exceptions are spelled out and written down). Use is prohibited:

- (a) to carry persons or property for hire.
- (b) to propel or tow any vehicle trailer or other object.
- (c) in any race, test or contest.
- (d) for any illegal purpose.
- (e) to instruct an unlicensed person in the operation of the vehicle.

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- (f) if vehicle is obtained from lessor by fraud or misrepresentation.
- (g) to carry persons other than in the passenger compartment of the vehicle.
- (h) loading vehicle beyond its rated capacity.

The bottom line is, while traveling on University business, you already are covered for anything the CDW or PAI might cover. Therefore, the University will not reimburse travelers for these charges.

The responsibility for safe driving is completely yours.

#### **ERC Notes**

The Employees Representative Committee (ERC) met February 10 in the Theory Conference Room. Kingston Owens of the Benefits Subcommittee, who is investigating the possibility of establishing a basic dental plan at the laboratory, reported on his meeting with a representative of Amerimed, Inc. He will present a report on self-insurance at the March ERC meeting.

Suzen Bayer of the Day Care Subcommittee told the committee that parents of 31 children, ranging from newborns to three-year-olds, would be interested in having a day care center at PPL. She added that a representative of the Mercer Medical Center—Employees Day Care Center would be willing to come and speak with the ERC about starting such a center. A memo on the subject has been sent to the laboratory Administration.

The committee is also looking into starting a surplus materials store. Adequate employee interest in such a program must exist before the ERC can pursue the matter further.

Len Thomas explained that seven courses, which would be taught in conjunction with Mercer County Community College, have been recommended to the Executive Committee for approval. He also mentioned the possibility of holding a rape prevention seminar. The seminar, which would be sponsored by the Secretarial Office Support Staf Staff Committee at the beginning of April, would be held dependent on employee interest.

Gloria Pokrywka took over from Dorothy Mazalewski as the ERC Recording Secretary.

#### **Great Adventure Discounts**

Discount tickets for Six Flags Great Adventure are now available from Meg Gilbert in the PPL Personnel Office. The free tickets entitle laboratory employees, their families and friends to discount admissions to the safari and theme park, as well as to reduced rates in hotels near the park. The tickets may be used throughout the 1982 season.

For further information, call Meg at ext. 2036.



### Security Checkpoints

Employees are urged to beware of con artists and con games. Some of the schemes used to bilk unsuspecting individuals include:

- Bank Investigator—Banks do not ask anyone to withdraw money in hopes of trapping a dishonest employee.
- Switch Game—Be wary if you are approached by someone who has just come into a large amount of money and wants to share it with you.
- Home Repairmen—Beware of bogus "engineers" who want to check your furnace, chimney or electrical system. Check to see if driveway sealers, roofers, or other repairmen are listed in the telephone book.
- Bogus Salesmen—Beware of someone offering merchandise, particularly color televisions, at ridiculously low prices.

No one ever gets something for nothing. Give yourself time to think, and common sense will help avoid the con game trap.

The PPL Hotline is issued by the Princeton University Plasma Physics Laboratory, a research facility supported by the U. S. Department of Energy. Correspondence should be directed to PPL Information Services, Module 2, C-Site, James Forrestal Campus, ext. 2754.

#### **Energy Library**

The energy library, which is being maintained for the use of all laboratory personnel, will be temporarily relocated to the 1T2 Building (Transportation Services) at A-Site. Material is available from 8 a.m. to 4 p.m. to any employee of PPL.

#### Singles Social

The Princeton University League's monthly singles wine and cheese social will be held April 15 at 5 p.m. in the Fine Tower faculty room on main

campus. All single members of the University faculty and staff are invited to attend. For further information, contact Naoma Dorety at 272-4097.

#### Art Exhibit

A joint art show, featuring the wood sculptures of Gladys Lewis and the weavings of Ann Wennerstrom, will be sponsored by the University League of Princeton from March 21 through April 16. The exhibit will be on display in the Dorothy Brown Room, 171 Broadmead from 9 a.m. to 1 p.m. Monday through Friday.





While TFTR assembly continues apace in the D-Site Test Cell, workmen are also busy preparing the electrical systems that will augment the machine. The myrial cables that will connect the TFTR MG sets with the power conversion units are shown above. The AC and DC terminations from EOH transformers 1 through 9 are shown protruding from the wall in the picture at left; jumper cables connecting transformer to transformer extend from the ceiling. At right, cables linking diodes, interruptors and rectifiers are being connected to a switch gear cubicle. In all, approximately 4,000 cable terminations will have to be connected to allow TFTR to operate.

# ppl people

#### Guitarist Fond of Folk Music

Folk music can open a window on our past, provide a view of our present, and let us peek at the future. Perhaps that's why Jack Mervine derives so much pleasure out of playing and singing folk music with the Princeton Folk Music Society.

Jack has been with the laboratory for six years, and is a software engineer on the Data Aquisition System (DAS) for PLT and PDX.

Jack's guitar was instrumental in his interest in folk music. Orginally a jazz guitarist, he was a member of several jazz bands. Later he took up classical guitar, and belonged to the now defunct Princeton Classical Guitar Society. At PPL he met Mary Corneilussen, who told him about the Princeton Folk Music Society. He's been a member of that group for a year.

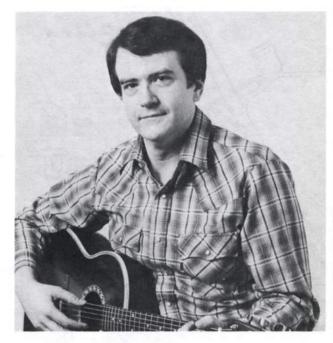
The Society, which has approximately 150 members, holds monthly concerts in the Princeton YMCA. Society members also sponsor house sings, informal gatherings for society members only, during which attendees sing songs on a predetermined theme, such as love, or traveling. Jack will be leading a Wild West sing in April.

Sings generally attract 20 to 30 people, and Jack estimated that 20 percent of the attendees are there "just because they like the music; they're not forced into singing."

The Society also hosts house concerts, when a local folk music performer gives an impromptu concert at someone's home. Although the sings are free, a small charge is made for each YMCA concert and house concert. Society members can also be found participating in the various folk festivals held throughout the area.

Jack defines folk music as "music that preserves the tradition of English-speaking countries."

While it's difficult to rein such a wide-ranging field into categories, Jack cited four general groupings in folk music: English and Irish folk songs, rural



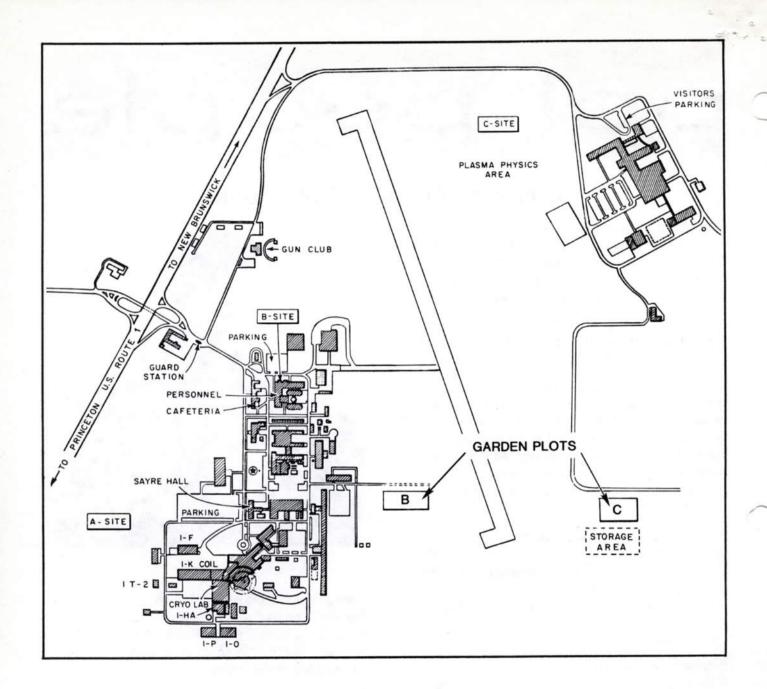
Jack Mervine

American music, the music of the Wild West, and sea chanteys. Some of the performers, such as Gordon Bok and Bill Staines (two of Jack's favorites), write their own music. The songs describe life on the seas, and life in the country.

Many folk performers also play an instrument, such as a guitar, banjo, hammer or mountain dulcimer, violin or recorder. Some, however, prefer to sing without accompaniment.

Yet despite this wide divergence in musical tastes and singing styles—or perhaps because of it—there is a greater tolerance in folk music. One singer will teach his songs to another, and musicians share the arcane chords and tunings folk music often calls for. "It's a community of people who like the same basic type of music as you do," Jack says, "but everyone seems to really enjoy the variety. Sharing good music is a great way of learning."

For more information about the Society, contact Jack at ext. 3420.



#### Garden Plots

Garden plots are again available to Forrestal Campus employees this year. The A, B, and C-Site locations (indicated on the map above) are the same as last year.

Prospective gardeners should complete and submit the form printed here to the Human Resources Section, c/o Meg Gilbert, Sayre Hall. If you have questions, please call Meg on ext. 2036.

#### **GARDEN PLOT REGISTRATION**

Name			
Extension	Site	Bldg	
Lot used last ye	ear		
Newcomer			

IF YOU USED A GARDEN PLOT LAST YEAR, PLEASE CLEAN IT BY MARCH 31 OR IT WILL NOT BE POSSIBLE TO HAVE IT PLOWED.