HOTLINE

PRINCETON PLASMA PHYSICS LABORATORY

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MG #2 START-UP

Gene Baker, Mounir Awad, Aleksandar Ilic and Charlie Ancher (left to right) all had a hand in the "push" to get TFTR MG No. 2 on line by August.

In the near future, the power required to operate TFTR will no longer be drawn from only one motor generator (MG) set. Balancing and acceptance tests are now underway on MG set No. 2, in an effort to bring it on line early this month.

Dave O'Neill and K. Lane were involved with the contract between PPL and Canadian General Electric for installation of MG No. 2. It took approximately 12 hours for the unit's 300-ton stator to be placed in the MG pit. Mounir Awad, cognizant engineer for the TFTR MG sets, said "Dave did an excellent job to assure that the stator was lifted in a safe way."

All auxiliary systems for the second MG unit were commissioned by PPL in parallel with General Electric's installation work on the set. The unit was successfully spun for the first time July 5. Awad said the startup went "nice and smoothly." The 600-ton rotor was run to 20 to 30 revolutions per minute (rpm), then allowed to coast to a halt to allow inspection of areas where components might be rubbing against each other as the rotor turns.

At 30 rpm, some rubbing was found in a swirl vane associated with the air cooling system for the MG set. After a one-day repair of that problem, however, an oil leak on the thrust bearing was discovered. The leak was sealed, and acceptance testing was resumed July 17. The unit is expected to begin supporting the TFTR power supplies August 4.

Awad reported that MG set No. 1 is running "very well after some modifications." Those modifications were made as a result of studies by the PPL Task Force. Jack Joyce and Jim Sinnis authorized task force members John Lowrance (who served as chairman), Peter Bonannos, Graham Brown, Henry Chandler, Wolfgang Stodiek and Ken Wakefield to investigate the balance problems plaguing the first MG set. Their studies revealed that the upper guide bearing on the unit was inadequately damped, producing vibration levels well above the 10 mils called for in design specifications. Several alterations were made, including stiffening the upper bearing bracket on the pit wall with tensioning posts, and reducing the bearing clearance from seven to five mils. The changes reduced the vibration levels, which had previously reached a maximum of 25 mils, to less than 10 mils regardless of the speed of the unit. The level remained constant through MG acceleration and deceleration as well.

Aiding in diagnosing the difficulty were readouts provided by instrumentation installed by Graham Brown. The instruments detected vibration levels, displaying them on a screen in the MG control room. Awad commended the detectors -- and their installer -- for "doing a very good job for us."

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Eugene Baker, Rich Myslinski, Will McQuade, Colin McFarlane, and Harry Krotz also won Awad's praise. "We have a good team here," he said, "with people who really dedicated themselves to their work. Without their support, we couldn't have accomplished as much as we have so far."

Awad also thanked Frank Lawn, Charlie Ancher and Eugene Baker for their work on the MG cycloconvertor and exciter.

Each TFTR MG set has a 600-ton rotor and a 300-ton stator, and is rated at a maximum speed of 375 rpm. Each generator can deliver 475-MVA pulses for six seconds at five minute intervals.

Tritium Handling Course

Dr. Don Grove (left) and Dr. Ernst de Haas (right) presented certificates to (rear, left to right) Richard Yager, Tom Szirtes, Robert Shoemaker, Ken Andreas, M. Getlik, Mannie Waldman, (front, left to right) Bill Pointon, Steven Hendrickson and Gene Mitman. The group recently completed a tritium handling course.

Among the various hydrogen isotopes, the fusion reaction between deuterium and tritium is the most efficient. TFTR is specifically designed to handle this combination of gases; tritium will be introduced into the torus for the first time late in 1986.

Handling tritium, which is mildly radioactive, will require some special skills from operators and their supervisors. To help develop these skills, a three-day tritium handling course was recently held in the Gottlieb auditorium.

The course was taught by five general operations and safety specialists from the Ontario Hydro electrical utility, and from Atomic Energy of Canada Limited. As operators and designers of the Canadian heavy water (deuterium) reactors, each has had many years of experience in handling tritium. In contrast, American reactors operate with normal water (light water), which does not become tritiated in the neutron fluxes of the reactors. The Canadians eventually hope to sell their tritium as a feedstock for fusion reactors.

The course material included units of measurement for tritium; its nuclear, mechanical and chemical properties; methods of monitoring for tritium; and a demonstration of a protective suit designed to prevent tritium handlers from exposure to the isotope. Twenty-one of thirty-two staff members who took the course successfully completed it.

Each student who passed the course "final exam" received a certificate from TFTR Project Manager Dr. Don Grove. Dr. Grove told class participants that laboratory management takes training courses very seriously, not only because the DOE requires them, but also because TFTR cannot be properly run without fully trained operators and supervisors.

The tritium handling course is part of the overall TFTR training program, which includes about 20 topics. According to PPL Training Manager Dr. Ernst de Haas, the class will be repeated in September. There are also plans for a week-long advanced tritium handling course, where participants will work in glove boxes in a tritium atmosphere and clean up a tritiated water spill. That course is currently scheduled for October, and will be held at a tritium facility in the U.S. or Canada. A final site for the course has yet to be chosen.

Dialing Difference

Employees making telephone calls outside the 609 area code will now have to add a digit to complete their connection. As of July 1, callers must dial 9+1 plus the area code and telephone number they are attempting to reach. If the "1" is omitted, a recording will tell the caller to redial the number.

The addition of the "1" also applies to toll-free "800" calls, as well as to directory assistance calls in other area codes. If you have any questions about the new procedure, contact Molly Tompkins at ext. 2694.

Leslie Thompson

Les Thompson

The laboratory recently welcomed a new staff member in a new position, when Leslie B. Thompson was selected to manage the Safety Branch of the Occupational Medicine and Safety Division.

Thompson earned a bachelor's degree in industrial technology from the University of Minnesota, receiving an industrial safety master's degree from the same institution. He has also taken courses in management, OSHA compliance, and human factors engineering at a number of educational centers.

Thompson has been involved in the safety programs at the Westvaco Corporation in Virginia, the IBM Corporation in Florida, and the Minnesota Department of Transportation in Minnesota. Most recently, he served as corporate safety manager for the Atlantic Aviation Corporation in Wilmington, DE. He came to PPL for the "challenge and variety" to be found here. "The laboratory is on the forefront of technology," he enthused, "and that's not something you get the chance to deal with too often!"

As manager of the Safety Branch and of the Industrial Safety Section, Thompson intends to review and update specific PPL safety programs, policies, and procedures. He will be responsible for standardizing safety practices and safety equipment throughout the laboratory, and will assist PPL management in carrying out safety responsibilities. Other duties include accident investigation and review, both to ensure that appropriate corrective action has been taken and to keep management informed of significant accident trends. He will also direct the lab-wide safety training program in cooperation with Bob Bergman.

Among Thompson's goals for his new role are the development of improved storage methods, achievement of a zero lost-time accident rate, revision of health and safety procedures, organization of a safety incentive program, and establishment of safety training programs for management and employees.

Thompson expects to use the Area Safety Coordinator program as the nucleus for future safety efforts. He would like to "increase managers' understanding of their role in our safety program. We all have to work together to make the program a success. With the cooperation of management and employees, I believe we're going to have a very good program."

New Librarian

PPL assistant librarian Jane Holmquist (left) became head librarian following Betty Graydon's June 29 retirement. Betty had been a University employee since 1962.

Composition Change

Due to a change made in the composition of J-88 (a liquid degreaser for electrical equipment manufactured by Cantol Inc. of Philadelphia), some changes should be made in the use of this material at the laboratory.

Cantol's J-88 now contains approximately three parts 1, 1, 1-trichloroethane to one part methylene chloride. This new formula has most of the same properties as the old one -- with a few exceptions. J-88 will now dissolve polystyrene, and may soften some paints and labels.

Because of the body's chemical reaction to methylene chloride, it is extremely important that J-88 ONLY be used in a thoroughly ventilated work area. Splash goggles and neoprene or polyvinyl alcohol (PVA) gloves should be worn when working with J-88; PVA gloves may offer more protection than neoprene, but are more expensive.

The Cantol product data sheet recommends dipping or spraying of small electric motors in J-88 while they are running. PPL's Occupational Medicine and Safety (OM&S) Department DOES NOT recommend this practice, since the rotating parts of an electric motor could easily throw J-88 into a worker's face when the motor is dipped or sprayed. In addition, the ultraviolet light and heat produced by arcing motor brushes may cause J-88 to be chemically changed into phosgene and hydrogen chloride gases, both of which are toxic and irritating.

Finally, J-88 SHOULD NOT be used in areas where arc welding will take place. The same chemical reaction that occurs with J-88 in arcing motors can occur even more easily while arc welding.

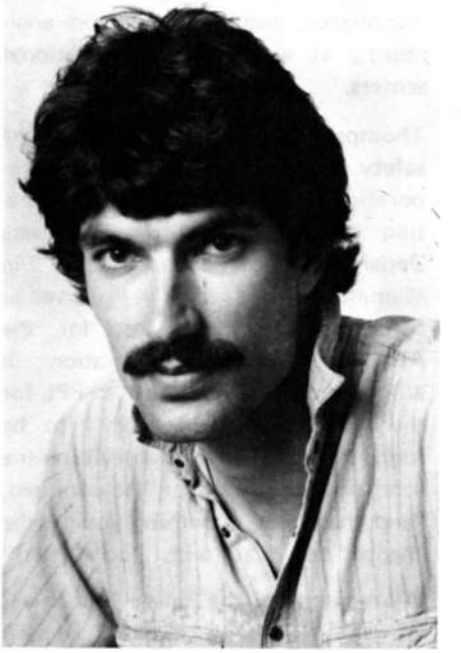
If you have any questions on the use of J-88, the effectiveness of the ventilation in areas where J-88 is used, or personal protective equipment, contact the OM&S office, ext. 2531.

Fellowship Awarded

Steven C. Cowley, a third-year student in the plasma physics graduate program, has been awarded a Charlotte Elizabeth Proctor Fellowship for the 1984-85 academic year. The award cites his "distinguished work in the Department of Astrophysical Sciences."

Honorific fellowships constitute Princeton's highest award, and are offered in recognition of outstanding performance and professional promise. Cowley was one of five Princeton graduate students in the natural sciences to receive a Charlotte Elizabeth Proctor Fellowship this year.

A graduate of Oxford University, Cowley came to Princeton in the fall of 1981. In his research studies with Professor Russell M. Kulsrud over the past two years, he has successfully introduced quantum-mechanical formalism to the Boltzmann-equation analysis of plasmas with polarized nuclei and made new advances in the theory of tearing modes.



Steve Cowley

Cowley's 1984-85 academic year will be devoted to the completion of a doctoral dissertation on anomalous transport in tokamaks.

Sports Equipment

Afternoon athletes can display their prowess by using recreation equipment signed out through Meg Gilbert or John J. Clark. Softballs, quoits, horseshoes, three bases and a home plate are available from Meg; badminton equipment, tarrico, and horseshoes are available from John.

Employees at A- and B-Sites should sign their equipment out from Meg in Sayre Hall. C- and D-Site employees should obtain their equipment from John in the C-Site Maintenance Building. Equipment should be reserved prior to lunchtime. It is the responsibility of the individuals signing out the materials to see that they are returned.

Sports equipment will remain available throughout the summer months.

Health And Safety Training:

The following Health and Safety courses have been scheduled for July and August:

Cardiopulmonary Resuscitation (CPR)	S. Larson (x3166)	July 23, 25, 27 9 a.m.-noon or 1-4 p.m.
Self-Contained Breathing Apparatus	S. Larson (x3166)	July 31, 1984 9:30-11:30 a.m.
Employee Orientation	B. Cohen (x2037)	Scheduled by the University and B. Cohen
Lower Back Injury Prevention	M.A. McBride (x3468) L. Owen (x3533)	Aug. 1, 8:30 a.m.-12:30 p.m.
Fire Extinguisher Training	S. Larson (x3166)	Aug. 14 & 28, 2-3:30 p.m.
Cardiopulmonary Resuscitation (CPR)	S. Larson (x3166)	Aug. 20, 22, 24 9 a.m.-noon OR 1-4 p.m.
Self-Contained Breathing Apparatus	S. Larson (x3166)	Aug. 28, 9:30-11:30 a.m.

Employees must obtain their immediate supervisor's permission to attend any of these courses. Supervisors must call the responsible instructor to enroll their employees.

Student Scientists

Standing before one's colleagues and explaining research results is an everyday occurrence for PPL physicists and engineers. But for the 12 West Windsor-Plainsboro High School students describing their research to an audience of laboratory staff members and classmates, the experience was a novel one.

The presentation marked the culmination of a month-long partnership between high school physics students and PPL physicists and engineers. Laboratory staff provided guidance to the students, who investigated and resolved a variety of plasma physics problems.

The idea for the program grew out of physicist Ralph Izzo's involvement with a one-day energy symposium the West Windsor Regional school district held last year. During a planning meeting for that symposium, Dr. Izzo met teacher Tom Ritter, the organizer of the Scientist/Science Teacher Interaction program. Ritter's senior science class usually studies fusion energy as part of its curriculum. He suggested that his students work with PPL staff to solve real problems that have confronted plasma physicists in designing fusion energy experiments. Dr. Izzo prevailed on colleagues Milt Pelovitz, Phil Heitzenroeder, and Doug Darrow to supply the students with appropriate problems -- and with help in resolving them.

Problems were presented to the class in the same step-by-step sequence scientists used to solve them in the past. Vital pieces of each answer were withheld, however; students were expected to calculate or research their answers and "fill in the blanks" to derive the solution. "It's a manageable process," Dr. Izzo explained, "that certainly was a challenge for them!"

Students spent the first week of their month-long project period researching background materials on their particular problem. Using the PPL library,

West Windsor-Plainsboro High School students Margot Wray (left) and Mike Atkinson (center) discuss their research into plasma physics problems with Princeton Plasma Physics Laboratory engineer Milt Pelovitz (right).

staff members, or graduate assistants as resources, students searched for solutions during the second week of their investigations. Final papers on their findings were presented before an audience in the Theory Conference Room.

Following the presentation, Ritter assessed his students' performance. "At first, I don't think they realized what they were in for. They were certainly challenged (by the problems, which ran the gamut from determining magnetic field forces to calculating the criteria necessary for fusion to occur). But they proved themselves capable of handling them. I think they did very well."

Ritter credited the program with providing "a break from traditional classes. It takes (students) where the action is and where the resources are. They can see the application of what they're learning in class."

Student presenters echoed Ritter's feelings. Ilinca Popescue, who reported on magnetic fields, said the program deserves" an A+; I really enjoyed it! When we got started, I didn't know anything about plasma physics. Seeing the experiments and the people (at the laboratory) made it real to me. I learned a lot from the people (at PPL); they were all very helpful. I was really impressed!" She added that she would encourage other students to participate in the program, "because it's important for students to realize that we can do these kinds of problems."

Senior Margot Wray said she learned "a lot in a very short time. It's been very helpful, because now I can see what all those rules and equations I've been learning can be used for." Classmate Liam Duffy agreed, pointing out that after confronting "little classroom problems," he wasn't sure he was ready for work on plasma physics equations. "It's definitely something I'd recommend to others. I really got interested, and it suddenly didn't seem like hard work!"

Other students participating in the program were Mike Atkinson, Tony Chen, Caroline Fish, Ruth Javick, Neal Miller, Beth Mynatt, Jeff Russo, Rob Schnell, and Daniel Sun.

Science Project Takes Off

When physicist Dr. Ralph Izzo participated in an energy symposium sponsored by the West Windsor Regional school district last year, he never imagined it would lead him into the space program. But thanks to his assistance and that of interested parent Sharon Magee, a group of gifted and talented fifth and sixth graders were able to "launch" their own fusion-powered space shuttle.

Dutch Neck School students David Gene, Charles Magee, Jason Duval, Sherman Wang, and Doug Parvin contacted Dr. Izzo in January, recalling his visit to their district. The students asked for his help in selecting a science project. After some discussion, the group decided to design a space mission, targeted for a May "liftoff." The shuttle was chosen as the most spaceworthy vehicle for the trip.

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While figuring out fueling requirements for their mission, the youngsters chose to power the shuttle with a fusion engine. The classmates appealed to Dr. Izzo, and parent coordinator Sharon Magee, for guidance on some of the complicated calculations involved in getting the project "off the ground."

The students obtained the dimensions of the shuttle from a model kit Charles Magee was building at home. Dr. Izzo worked with the students for one hour every other week, while Mrs. Magee assisted them on a weekly basis. With her help, the students wrote a program for a personal computer, detailing the shuttle's launch.

"They had to learn some Newtonian physics," Dr. Izzo marveled, "so they could figure the energy it would take to defeat the earth's gravity and lift the shuttle into orbit. They calculated the deuterium-tritium conversion factor for fusion energy release without using any handbooks, and found that it would take a kilogram and a half of deuterium to power their shuttle. They also had to do preconceptual calculations of aerodynamics, environmental controls, and so on. I was really impressed with their abilities!"

And unlike NASA's recent shuttle woes, the Dutch Neck shuttle program ran without a computer glitch and "launched" on time!

Obituaries

Two PPL staff members have died since February. They are:

- Bertram W. Phillips, a buyer in the Administration/Purchasing Department, died May 15. Mr. Phillips, 62, joined the laboratory staff in 1980. He is survived by a son and two daughters.
- Edwin Naprawa, a painter in the Maintenance Department, died June 7. Mr. Naprawa, 63, joined the laboratory staff in 1976. He is survived by his wife, three children, and several grandchildren.

Cathy Howard has been appointed Assistant Head for Administration in the Research Department under Associate Director and Research Department Head Paul Rutherford. She will assist Dr. Rutherford in department administration, with particular emphasis on personnel administration, recruiting, visitor programs, the Research manpower system, and budgets administered by the Research Department. Cathy, formerly Manager of Human Resources Information Systems in the Personnel Department, will be located in LOB 370.

Information Services Branch Head Anthony DeMeo presented Printing Services Supervisor George Geherty with a plaque in recognition of his retirement June 29. George, who has been a PPL employee for 32 years, also received a gold watch during a dinner held in his honor In accepting the gifts, George thanked the laboratory staff for making his tenure at PPL "very interesting. It doesn't seem like 32 years, but all good things must come to an end!"

Books For The Blind

John Schivell will never know how many people have seen the intricacies of physics through his eyes. For John is an active volunteer with Recording for the Blind, a national organization headquartered in West Windsor that provides audio tapes of a variety of books to blind readers.

Recording for the Blind was established 34 years ago to give the blind access to books not readily available in braille. Volunteers read the texts of books ranging from current novels to collegiate textbooks onto tapes, which are distributed free of charge by the organization. Often the only way a blind person can "read" a chosen volume is through a Recording for the Blind tape.

"Creating braille books requires an enormous number of pages," explained Anne Young, director of the group's Princeton recording studio (and wife of PPL's Ken Young). "Even by machine, the conversion process is very slow. And not everyone who is blind can learn braille; it's similar to learning a foreign language. Not everyone has the aptitude."

In addition, the organization supplies booktapes to the legally blind (partially sighted individuals who can see with the help of special magnifiers), and to people with severe dyslexia, cerebral palsy, multiple sclerosis, or other handicaps. Anne emphasized, however, that individuals must be certified as handicapped before they are allowed to use Recording for the Blind services.

John's involvement with the program began two years ago with a sign on the PPL bulletin board. He discovered that technical readers for the organization were in very short supply. "It's easier for them to find general readers," John said, "especially since they insist on having someone who is familiar with the materials to read technical books."

Anne concurs. "We always need technical readers," she points out. "There are technical books on our shelves that we can't assign to be converted into tapes because we don't have sufficient readers." Fields with the most critical shortages include computer science, electrical and mechanical engineering, physics, and advanced mathematics.

Knowledge of the field is essential in technical reading, according to Anne, "because you're not only reading the text. There are also diagrams that have to be clearly explained; computer flow charts, for example. In some cases, we supply raised line drawings (figure diagrams similar to braille) with the tapes, but the time it takes to make one is enormous, and many of our clients can't read them. That's why, in addition to the training we provide, we advise new readers to listen to tapes of similar books. They can hear how others have described similar diagrams, and we also provide some written tips on describing figures. But in many cases, readers come upon figures sight unseen, and must describe them off the top of their heads. That requires a thorough knowledge of the subject; it's really not a very easy thing to do."

"The hardest part (about reading technical texts) is describing technical figures," John agrees. "(When dealing with a graph, for example,) I usually describe the scales and ranges, then pick some points on the curve and describe where they are. That's why I like to look through what I'm going to read beforehand, so I can do some thinking about how to describe the figures and not have to struggle through them." He added that "the rules of reading are to simply read the material, not digress from it."

Along with local training, each prospective reader is given a voice test. The test is sent to a committee in New York, where the decision on whether the reader is suited to the reading material is made.

John recalled his own voice test in 1982. "I wanted to be a radio announcer in college," he admits, "but I didn't pass the test. But I did pass my voice test for Recording for the Blind. It's something that lets me have a little fun while I'm helping someone else, so why not get involved? Besides, I'm something of a ham, so I enjoy it!"

It takes eight to nine readers to tape the contents of one book. Each reader devotes approximately one and a half hours to a single reading session; John estimates that he can cover 10 to 12 pages of text in that time. Readers sit in soundproof recording booths, while a monitor outside the booth operates a control board and a reel-to-reel tape recorder. Monitors follow the text along with the reader, pointing out

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A reader/monitor team work together to produce an hour of recorded text at the Recording for the Blind studio in Princeton.

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mistakes or modulating the master tape recording being made as the reader speaks. The master recording is then duplicated onto cassette tapes, which are sent to individuals requesting that particular book.

Those requests are what enlarges the Recording for the Blind tape library. Anyone nationwide may ask for a specific book on tape. If a master tape of the volume exists, a duplicate is made and sent out. If the book requested has never been recorded, it joins an ever-increasing list of texts awaiting qualified readers. Last year, for example, 284 volunteers at the Princeton unit read 246 books, accumulating 5,038 hours of reading time. The majority of books requested are texts for college courses, and since many of them involve technical subjects, they are frequently backlogged.

"We're presently working on the books students will require for the fall semester," Anne said. "We're trying to meet our deadlines, and we're reading approximately 20 books a month onto tape. But there are often texts required for fall courses that stay on our shelves until December because we lack more technical readers."

Anne stressed that while the demand is greatest in the technical area, "we always need readers in all fields. We also need monitors, and volunteers to duplicate the tapes."

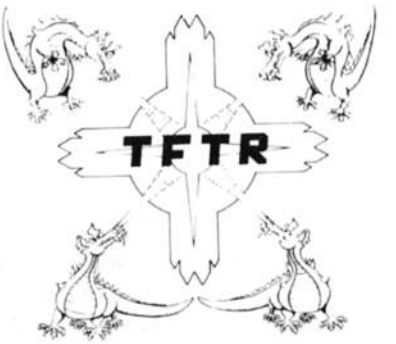
Those interested in volunteering for Recording for the Blind should contact Anne Young at (609) 921-6534.

Award Aid

Attention all service award recipients! Has your Tiffany pen run out of ink, or have you lost the ball closure on your Tiffany keychain? Fear not -- replacements for both items are available through Meg Gilbert in Personnel, Sayre Hall, B-Site.

CORRECTION: In a photo caption for Secretaries' Day in the last issue of HOTLINE, SOSS committee member Dorothy Pulyer was incorrectly identified as Helen Livernoche. The HOTLINE regrets the error.

The Emergency Services Unit added a sixth vehicle to its fleet with the acquisition of a Rapid Intervention Vehicle (RIV). The vehicle features front and rear bumper-mounted turrets, which can dispense either foam or dry chemical extinguishing agents, or a combination of both. The front turret is controllable from the cab of the RIV, allowing firefighters to combat fires in areas where on-foot entry might be dangerous. The vehicle also carries approximately 200 feet of fire hose.



T-Shirt Deadline

August 20 will be the last day orders for TFTR tee-shirts and sweatshirts will be accepted. The shirts, which come in a variety of styles and colors, feature a TFTR logo being "heated" by four neutral beam "dragons." Each shirt is silk-screened in four colors.

For further ordering information or a price list, contact Anne Golden at ext. 2444.

Transitions

BORN -- To physicist Allan Reiman and his wife, a son, Jonathan, on June 10. Congratulations!

BORN -- To Captain John Glasson of the Emergency Services Unit fire department and his wife Sally, twin boys, John Thomas and Robert Jeffrey, on June 28. Congratulations!

BORN -- To Rodney Templon, a son, John on June 29. Congratulations!

BORN -- To Dave Allegretti and his wife, a daughter, Mary Ann, on June 30. Congratulations!

BORN -- To Chuck Bennett of the Diagnostics Division and his wife Patty, a daughter, Marlene Patricia, on July 1. Congratulations!

Suggestions Sought

Have an idea on how to save energy at the laboratory? Send it along to the Project Engineering Branch, and your idea might become a reality.

Branch members are seeking suggestions for reducing energy costs throughout PPL's facilities. Ideas should be limited to a short paragraph outlining the proposed project. Suggestions should be sent to Bob Gulay, ext. 3255, by the end of July.

Once suggestions are received, the Project Engineering Manager will transform each idea into a conceptual project objective, complete with estimated costs. The best of the suggestions submitted will be forwarded to the Department of Energy with a funding request.

Cherin Chaykowsky Wins Pageant Crown

Cherin Chaykowsky

It's not every man who can become the father of royalty. But that's what happened to PPL's Art Chaykowsky last month, when his daughter Cherin was named Miss New Jersey National Pre-Teen pageant queen.

The Miss New Jersey National Pre-Teen contest is open to girls ages eight through twelve. This year's field of 65 entrants was judged on the basis of their applications and scholastic achievements. During the pageant, the contestants were evaluated on sportswear and party dress modeling, as well as on their responses to a variety of interview questions. As a state contest winner, Cherin received a $500 savings bond, a jacket and watch, a competition trophy, and a weekend in the Catskills for her family. She will be given an all-expense paid trip to Florida in October to compete in the national Miss Pre-Teen pageant.

Eleven-year-old Cherin is no stranger to performing before an audience. She has been guest parade marshal at the Disney World Tencentennial Parade in May 1982; was selected 1983-84 Royal Stars Grand Celebrity; and took first place in the Miss New Jersey Talent Hemisphere contest for 1983. She's won over 700 trophies and titles for her baton twirling, taking up the skill at the age of six. The featured twirler for the Lawrence High School marching band for two years, she was recently selected Miss Majorette of New Jersey. Cherin will be traveling to Notre Dame University later this month to compete in the American Youth on Parade National Baton Contest.

Her expertise with a baton stood her in good stead during the Miss New Jersey Pre-Teen pageant. Her jazz-baton routine helped Cherin become the first contestant in pageant history to win both the talent title and the com petition crown.

As the current Miss New Jersey Pre-Teen, Cherin will represent the Garden State at pageants in New York, Delaware, and Maryland. She will be making guest appearances at a variety of events during her year's reign. Her most recent appearance was on Channel 9's Arthritis Telethon.

Despite all her achievements, Cherin remains an unaffected fifth grader at the Lawrence Intermediate School. "She's got her feet on the ground," says her proud papa. "She's a straight-A student, and her mother and I have always told her that school is the most important thing. That helps her stay cool in competition -- even if her mom and dad aren't!"

Bowling Results

A look at the final standings of the Princeton University Mixed Bowling League proves that the Pony Express can still deliver in tight situations. The team, paced by captain Ken Strine, finished first among eight squads for the 1983-84 season.

The Express, which includes Fred Dahlgren, Dave Maruso, Debby Simmonds, and Nancy Strine, ended season play just 22 pins ahead of the second-place Strike Force. Colin McFarlane was captain of the Force; his teamates were Harry Krotz, Betty Carey, and Dee and Dick Boscarino.

At the league's June banquet, a number of bowlers were rewarded for their performance throughout the year. High average trophies went to Ken Strine (185), Dick Kopliner (175), Thomasina Abrams (154), and Nancy Strine (151). Receiving High Series awards were Ken Strine (647), Matt Lawson (629), Kim Prutky (550), and Thomasina Abrams (538). Dick Boscarino and Dick Kopliner tied for high game honors with 246's; Nancy Strine (231) and Terry Tempkin (213) also won trophies for their high games.

Dave Maruso and Debby Simmonds both received trophies as the most improved male and female bowlers.

League officers were also chosen during the banquet. The current league officers, which include president Bobbie Cruser, vice-president Matt Lawson, and secretary Dolores Mazalewski, were all reelected to their positions. Joining them will be Dottie Kerr, who will serve as league treasurer.

Bowling Victors

Harold's Hitmen lived up to their name recently by mowing down the Old Men in a rolloff for the Princeton University Mens' Bowling League crown. The victory put the Hitmen, with captain Matt Lawson and team members John Luckie, John Cowell, Jose Aquino, Scott Larson, and Spence Holcombe, at the top of the standings when the 14-team league ended its 1983-84 season in May.

The Hitmen finished the first half of their 34-week season in first place with a 94-42 record. The Old Men, paced by captain Bob Mills and teammates John Tiscione, Fred Dahlgren, Homer Hill, Don Knutson, Harold Johnson, and Bob Silvester, won the second half of the season with an 88-48 mark. The Hitmen's success in the rolloff ended Security's two-year reign as league champions, and put the league trophy in the Warehouse.

At the league banquet, high average awards were presented to Jeff Bennett of the Powerhouse team (192.20) and Bob Popp of Tech I (192.16). Popp was also named the most valuable bowler, while John Tarnecki of the Controllers won the most improved bowler honors. Cleo Williams of C.O.B. rolled a 270 to take first place in the high game category, followed by George Mueller from the School of Engineering team with a 267.

Volunteers: People People

The following listings were provided to the HOTLINE by the Voluntary Action Center (VAC) of Morris County. For further information on any activity, please call the VAC at 201-538-7200.

- Wordsmiths are wanted to write news releases or newsletter articles for a group dedicated to alcoholism prevention; a volunteer group that maintains an emergency food supply; or an arts organization. A historical village is also in need of someone to write press releases on a regular basis. For information on specific positions, contact the VAC.
- If you have social work experience, a large social services organization needs someone to review periodicals, direct noteworthy articles to the proper staff, and update its catalog file.
- "In" baskets need to be cleared out at a variety of nonprofit organizations. Two to four hours per week spent typing, filing, coding, ordering, Xeroxing, or answering telephones would be greatly appreciated. Requests for such help have been received from organizations involved with counseling services, health care, consumer affairs, housing, environmental protection, recreation, youth services, government, theatre, indigent aid, and women's centers. Select a skill, and match it with an organization that needs you through the VAC.

The next three *listings were provided by the Princeton Area Council of Community Services. For further information about volunteer positions, contact each agency directly.*

- The Carrier Foundation of Belle Meade needs volunteers on evenings and weekends to visit patients, work in the patient library, and help out in the pharmacy and adolescent units. Volunteers receive a tour and general orientation, and devote from three to 20 hours per week to the Foundation. For more information, call 201-874-4000, ext. 468.
- Creative Theatre Unlimited of Princeton is seeking a seamstress to make and mend costumes; a computer programmer to handle the group's mailing list; and a photographer. To volunteer your talents, call 609-924-3498.
- The Eden Institute of Princeton, which works with families of autistic children, needs volunteers for babysitting/respite care. Help is also being sought for the residential program, and for therapy in the education program. Call 609-921-1198 to lend a helping hand.

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.

Tour Guides

It was standing room only for the PPL tour program during the first six months of 1984, as a total of 4,449 visitors got a glimpse of the laboratory's experiments. April was the high-water mark of the period, bringing 1,233 tourists along with its traditional showers. Our thanks to the following staff members, who served as "leaders of the pack" during the first half of this year:

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