BROOKHAVEN BULLETIN
Vol. 47 - No. 5 January 29, 1993
BROOKHAVEN NATIONAL LABORATORY

ATF Commissioned; Beam Line Experiments Begin

Having transported electrons to its first beam line, BNL's newest user facility — the Accelerator Test Facility (ATF) — became operational at 4:30 p.m. on December 23, 1992.

The ATF is a small linear electron accelerator (linac), which operates in conjunction with a high-powered, short-pulse laser to produce one of the brightest electron beams in the world.

With experiments to be stationed at the end of its three beam lines, the ATF will be used by accelerator physicists from BNL and around the world to research new methods of accelerating high-brightness beams of electrons, and to produce intense, coherent short-wavelength electromagnetic radiation for a light source.

Staffed by personnel from the Instrumentation Division, National Synchrotron Light Source (NSLS) Department and Physics Department, the ATF is the testbed for BNL's Center for Accelerator Physics (CAP), which coordinates interLaboratory research into new methods of accelerating particles and producing coherent radiation, and encourages experiments in these areas by outside users. Overseeing the construction and commissioning of the ATF project, the NSLS is now responsible for the ATF's operations.

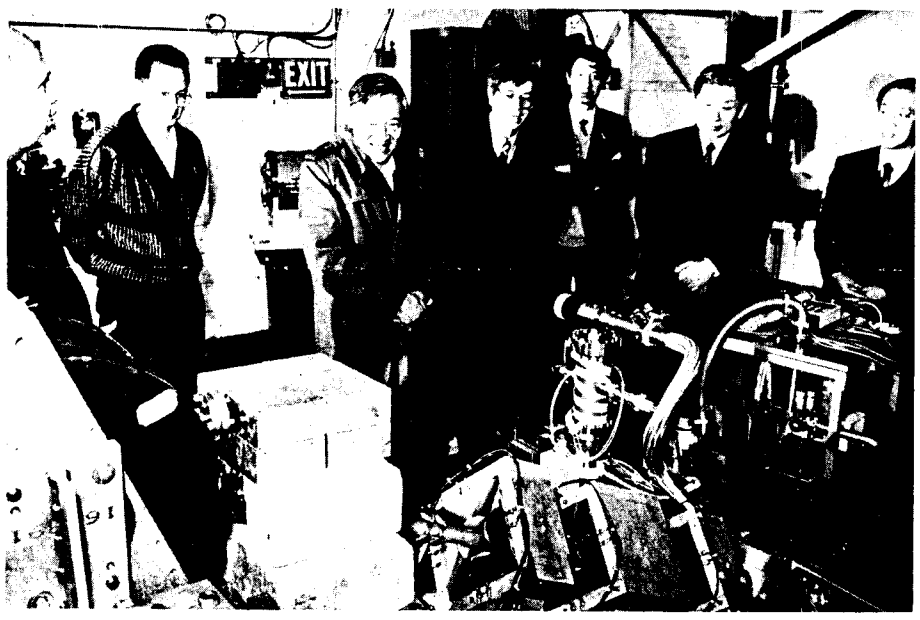
When beam was transported down beam line number 1, the electrons had an energy of 45 million electron volts (MeV), which is just below the ATF's top energy of 50 MeV. Each pulse of the beam was about 20 picoseconds long and came every 350 picoseconds.

"With the ATF now completed, we are concentrating on getting the first beam line experiment going," comments Ilan Ben-Zvi, ATF Head. That experiment, research into what is called inverse Cerenkov acceleration, is a collaboration involving STI Optronics, the University of California at Santa Barbara, Stanford University and BNL.

Before the ATF came on line at 45 MeV, however, an experiment involving a Dartmouth College, BNL, Massachusetts Institute of Technology and Oxford University collaboration was up and running. Because the experiment requires electron energies of less than 5 MeV, it only employs the source of the linear accelerator's low-emittance electrons, its radio-frequency electron gun with photocathode. Thus, the team got an early start on their investigation into the Smith-Purcell effect.

In the control room of the Accelerator Test Facility (ATF), recreating the moment of its commissioning on December 23, are: (foreground, from left) Richard Fernow (seated), Ilan Ben-Zvi; (background, from left) Kenneth Batchelor (seated), Robert Harrington, and Robert Malone.

Photos in this issue by Roger Stoutenburgh



The Accelerator Test Facility (ATF) was one stop on the December tour of the Lab by the Minister of Aerospace and Aeronautics of the People's Republic of China (PRC), Lin Zongtang (second from right). At the ATF, he and his delegation were greeted by ATF engineer Harold Kirk (left) and Robert Palmer (second from left), Head of the Center for Accelerator Physics. Also standing before the spectrometer at the end of ATF beam line number one was Minghan Ye (third from left), who just left the Lab this month after working for two years as a visiting scientist in BNL's former Accelerator Development Department and who served as the Director of the PRC Institute of High Energy Physics, 1984-88.

When the photocathode is stimulated by a pulse of light from a neodynium:yttrium-aluminum-garnet laser, the gun ejects pulses of electrons with energies up to 4.5 MeV. The 4.5-MeV electrons are then accelerated up to 50 MeV as they travel down the 20-foot-long linac. Attached to the linac is a 100-foot-long transport line, which delivers the beam to operational beam line number 1 and two others still under construction.

"Getting the ATF on line was a race between those involved in building the beam line and those working on the operational readiness review — and the latter was completed three days before the former," comments Ben-Zvi. "Without the tremendous effort of the Safety & Environmental Protection Division and the Brookhaven Area Office [of the U.S. Department of Energy] the review would never have been completed as quickly as it was. Their success inspired us to put in the extra effort to finish the beam line and, three days later, get beam."

In addition to improving the accelerator's control software and beam diagnostics, "We now have two more beam lines to finish before summer," reports Ben-Zvi. "And, we are working on building a second injection port and another, even higher-brightness electron gun. With two ports in place, we will be able to conduct two independent experiments simultaneously: a low-energy experiment employing electrons from the original gun, and a high-energy experiment using the second gun to shoot electrons down one of the beam lines."

Among the many who have contributed to the development of the ATF since it was first proposed in 1987, Ben-Zvi particularly thanks those who have most recently worked toward its commissioning.

They include: Marcus Babzien, Kenneth Batchelor, Robert Best, Cyrus Biscardi, Eric Blum, Irene

(continued on page 2)

Meeting Face to Face via Video

Every Tuesday beginning at 1 p.m., up to eight physicists have a two-hour conference with some 14 other collaborators from Argonne National Laboratory and Lawrence Berkeley Laboratory (LBL).

If the conferees had to fly to some mutually convenient place on the map, this weekly conference would be too expensive and time-consuming. If they all had to huddle around a speaker phone at their respective institutions during a three-way conference call, this meeting of the minds would be too confusing.

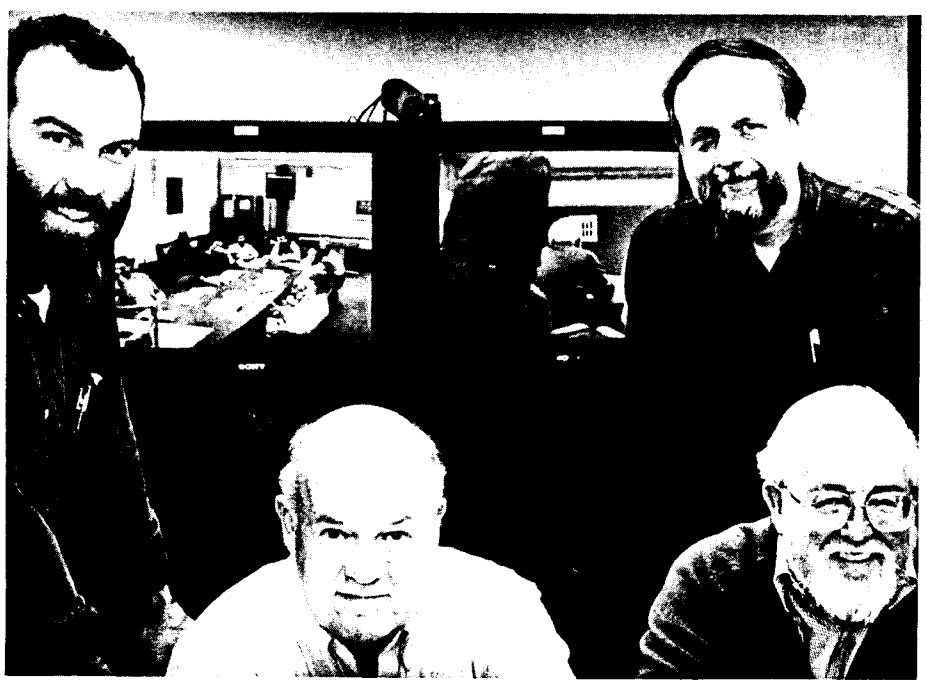
Instead, for less than $40 per hour, the BNLers gather around the microphones on a quadrangular "perspective" table in room M2-50, on the second floor of the new wing of the Computing & Communications Division (CCD), Bldg. 515. With the "Room in Use" sign lit outside the well-padded blue room, they sit back in comfortable swivel armchairs inside the room and turn on the TV — to watch and listen to themselves and the two other groups on the monitors as they video conference.

"Video conferencing gives you a sense of being in a meeting without the hassle and expense of traveling," comments Ed Platner, who is in charge of the weekly conference as deputy spokesperson for the STAR experiment approved for BNL's Relativistic Heavy Ion Collider.

Since November 11 of last year, CCD has been offering BNL groups the ability to see as well as hear the people with whom they are meeting — even if they are not meeting face-to-face and the meeting is actually being conducted over the phone lines.

On that day, BNL joined the Energy Sciences Network, ESNET, which connected BNL to a switching network at the Massachusetts Institute of Technology. From there, BNL's

(continued on page 2)



Video conferencing with their collaborators from Lawrence Berkeley Laboratory (left monitor) are some of the BNL physicists on the STAR experiment: (from left) James Mills, William Love, Kenneth Foley (seated), and Michael LeVine.

Leaving the Lab — After 35 Years or More

The Bulletin periodically salutes employees who retire with 35 or more years of service.

Bob Sick, DAS

When Roland (Bob) Sick arrived as a machine operator in BNL's new Special Materials Shop, much of the equipment was still in boxes. One of his earliest Lab memories was of unboxing the machines and removing the packaging.

That first day was May 17, 1948. Now, on January 31, 1993 — almost 45 years later — he will be leaving all the well-equipped machine shops on site and retiring, drawn by the idea of having a bit more time for travel, fishing and golf.

Now a Senior Technical Associate in the Department of Applied Science (DAS), Sick has not been in a hurry to retire. "I had an interesting job and met nice people. There's a friendly atmosphere at the Lab that makes it a good place to work. It's never dull — I've been involved in many programs, and every one was a different challenge."

One of these challenges was in Sick's first assignment — welding together steel pans to make the fuel cell ports that formed the south face of the new Brookhaven Graphite Research Reactor. He also remembers working on the moderator for the reactor. "Our shop was in the old Camp Upton bakery — the ovens were still there, right with the planers and milling machines," he recalls.

Soon after Sick arrived, he saw draftsmen at work and was immediately keen to try. Supported by the Lab, he took courses at night. As a result, he designed and made some of the instruments for many of the projects he worked on later.

In 1950, Sick moved to General Shops as a helper A, and in 1951 was promoted to a technician 2, working with the Reactor Components Testing Project. By 1952, he had made another move, to the then Nuclear Engineering Department (NED), and for the next 16 years worked on reactor studies, which were mainly classified, earning four more promotions along the way. In January 1969, NED became DAS, where one of the programs Sick remembers best was working on a pumpable rock bolt with Meyer Steinberg.

"The objective was to develop and evaluate a polymer impregnating technique to stabilize coal-mine roof structures," explains Sick. "At the time, mine roofs were pinned with steel bolts, which were risky to insert. Miners had to drill holes only four feet above their heads, and, if the

Bob Sick

unsupported rock crumbled, it fell on them. With the BNL method, a machine standing outside the area pumped a polymer mix into the rock. This solidified into bolts with a strength of about 8,000 pounds per square inch."

After Sick and other technicians completed a successful prototype at BNL, a team was sent to test it at one of the world's largest hard rock metal mines, in White Pines, Michigan.

"We went out there twice," recalls Sick. "The first time, we installed 12 bolts. Six months later, we spent six weeks underground working round the clock and put in 170 bolts. They worked well — the U.S. Bureau of Mines contracted with a Salt Lake City company to build another machine, and we got a subcontract to build the bolting head at BNL. It was an interesting project."

In DAS's Oceanographic Sciences Division, Sick says, "I worked alone to make a portable seagoing lab out of a surplus army radar trailer, for measuring water column properties such as nutrient content. We also measured phytoplankton. Around 1985 and 1986, I went down to South America and joined the research vessel *Melville* to take care of the machinery and intrumentation needed for experiments conducted off Peru. I also went up to the port of Seward, Alaska, to work on instruments studying currents in the Bering Sea."

In DAS, Sick received several more promotions, culminating in 1980 with his being named to his present title.

"For the last five years, I've been working with a group doing studies on particle bed reactors (PBR) and hydrogen flow tests. The results of these experiments confirmed the design goals of PBR-based flight engines," notes Sick. "I like to be in research, and that's what I've done. It's been a good time." -- Liz Seubert

Bob Smol, DAS

"Though the name has changed over the years, I've been in essentially the same department for the 35 years that I've been here," explains Bob Smol, who is retiring today, January 29, as Technical Project Supervisor in DAS.

However, what has kept Smol at the Lab for so many years is the fact that "My job wasn't routine, so I never did the same thing day after day, which is what made working here so interesting," he says.

With an associate's degree in industrial chemistry from New York's Agricultural & Technical College at Farmingdale, Smol began work at BNL on October 3, 1957, as a technician C in what was then the Nuclear Engineering Department (NED). "For the first 30 of my 35 years here, I worked as a chemical technician for several different principle investigators," Smol recalls.

His first assignment was to work on the liquid metal fuel reactor program. After being promoted to a technician B in February 1958, Smol took a military leave of absence that July. "I was drafted by the U.S. Army, stationed in Seattle, Washington, and assigned a job as a medical lab technician because that was the closest match they could make given my education."

Smol returned in August 1960 as an intermediate technician to work on a project studying thermal and radiation damage to fluorocarbons. Three more promotions ensued before January 1969, when NED became DAS. Smol moved up the career ladder three more times before October 1977, when DAS was renamed the Department of Energy & Environment (DEE). After another title change for Smol, DEE was once more called DAS.

"I was fortunate during my years at Brookhaven to work with quite a few principle investigators [PIs]. Because I always worked one on one, never in a large group, I got to know the person I worked for well and became a jack of all trades, learning

Bob Smol

all the technical aspects of research. Because all the projects were challenging and all the researchers I've worked for were congenial and patient, I can't pick out one project or one PI above the rest."

Smol's career took a turn in October 1988, when he was named a technical supervisor I, in charge of DAS's two machine shops, one in Bldg. 801, the other in Bldg. 815. Staffed by five machinists, these shops, which have since been transferred to the Central Shops Division, turn out work for other departments besides DAS.

As Smol, who was promoted to his final position in 1991, explains, "While I had a lot of experience with researchers in the lab, I had little or no shop experience when I came to this job. But the guys in the shop were very patient with me, so I learned a lot as the years have gone by. Research can go on indefinitely, always searching for answers in different directions, but, in the shops, you know what has to be made, you know how to do it, and, in the end, you have a finished product."

Smol concludes, "Having worked closely with them, I have the highest regard for the machinists at Brookhaven. While an engineer can fine-tune his blueprints with a pencil eraser, a machinist can't make any mistakes in interpreting these drawings — the job has to be done right the first time or cost the project money. Working in the shops is both challenging and fulfilling, and, having been a part of it was very satisfying to me."

Smol will retire to his home in Patchogue, where "I've got plenty to do to keep busy." In the near future, he and his wife Lee, who retired last year, plan to take their motor home to the Midwest and the West Coast. Right after Smol's retirement, they will go to Florida for a month or so, to visit with friends and relations.

In between his travels, Smol promises, "I'll be back to see the people I know here — I can't just pick up and leave the many friends I've made over the years." — Marsha Belford

Coming Up

Senior Nuclear Engineer James Powell, Department of Nuclear Energy, will give the next Brookhaven Lecture. His talk on "The Particle Bed Reactor: Nuclear Rockets and Beyond" will begin at 4 p.m., on Wednesday, February 10, *in the large seminar room of Physics, Bldg. 510.*

Video Conference (cont'd)

video conference calls only reached Harvard University and Argonne, LBL, Fermi National Accelerator Laboratory and the Superconducting Super Collider Laboratory.

Since January 6, however, BNL has been able to reach U.S. Department of Energy facilities via a primary-rate connection to the integrated services digital network, which has increased conference possibilities and video quality. While calls are at first being restricted to locations on the FTS2000 network, gateways provided by SPRINT and AT&T to commercial networks are expected to become available.

According to CCD video conference coordinator Ron Wittlock, who oversees the facility's setup and use, the first video conference was held on November 17 — a Tuesday — by Platner and his colleagues. So far, the only users have been from the Physics Department, but other departments have shown interest.

"While we've held only two- and three-way conferences, multi-way conferences are possible, with the number limited only by the equipment," says Wittlock.

A video conference is carried out using two 27-inch video display monitors sitting side by side in front of the room. One monitor is the preview screen, where BNL participants see the image that they are transmitting to their distant collaborators. The other is the main monitor, which shows one of the far-off groups, depending upon who is talking.

Since the system is voice activated, "If people interrupt each other or too many talk at once, the transmission gets garbled," reports Wittlock. To avoid this problem, "When people are done talking, many have taken to saying 'over,' as speakers do on the CB radio."

While the present speaker commandeers the main monitor, the image shown doesn't necessary have to be that of the speaker.

Using a push-button remote controller, three cameras may be selected at present: a wide-angle black & white camera shows the entire group; a color camera zooms in on individuals; and a camera on top of a document stand displays outlines, charts and graphs.

"The remote is as easy to use as the one for your TV," says Platner, "Better than the TV remote, it makes you feel like a director."

Among the amenities, a graphics tablet allows transmission of on-the-spot drawings. And, for distant collaborators who don't have video conferencing facilities but want to participate, a speaker phone sits on the conference table. To allow conferees to share handouts, a fax will soon be installed in the blue room.

While the quality of the image and sound is comparable to that of a TV, there is a one-second delay in receiving both. "And that's my only complaint," says Platner. "Otherwise, it is almost as good as being there."

— Marsha Belford

To schedule a video conference, call Muriel Kolomick, Ext. 4109, at least two weeks in advance.

ATF Commissioned (con'd)

Botke, William Cahill, Tzi-Shan Chou, Juan-Min Fang, Richard Fernow, Joachim Fischer, Alan Fisher, John Gallagher, Juan Gallardo, Edward Gaudet Jr., Robert Harrington, Richard Heese, Toni Hoffmann, Madeline Hughes, Gerhard Ingold, Harold Kirk, Samuel Krinsky, Karl Kusche, Robert Larson, King Leung, Kathleen Loverro, Donald Lynch, Robert Malone, Edward McKenna, Edward Meier, Mark Montemagno, Charles Neul, Richard Palencia, Robert Palmer, Zohreh Parsa, Sal Pjerov, Igor Pogorelsky, Soren Pop, Joe Qui, Mikai Radulescu, Wayne Rasmussen, Neil Schaknowski, Robert Scheuerer, John Schill, Joseph Sheehan, Lorraine Solomon, Gene Sorensen, Triveni Srinivasan-Rao, George Stenby, Richard Stoner, Mal Tardd, Kathleen Tuohy, Stanley Ulc, Arie Van Steenbergen, Xi Jie Wang, Martin Woodle, and Li-Hua Yu. — Marsha Belford

Slight Change In Tax Tables

Whether you are paid weekly or monthly, you may notice that you had less federal income tax withheld in January than in December. That's due to a slight decrease in the amount of federal income tax required to be withheld under the 1993 tax tables.

You may also have observed that the FICA rate for 1993 has not changed; the combined tax rate for Social Security and Medicare remains at 7.65 percent of an employee's gross earnings.

This year, however, the FICA wage bases have increased. So, for Social Security, an employee will be taxed at 6.2 percent on the first $57,600 earned and, for Medicare, at 1.45 percent on the first $135,000, for a maximum FICA tax of $5,528.70, an increase of $236.55 over 1992.

AA Meetings Resume

On-site meetings of Alcoholics Anonymous (AA) will resume Monday, February 1. Sponsored by the Employee Assistance Program (EAP) of the Occupational Medicine Clinic, the meetings will be held after work every Monday; when a Lab holiday falls on a Monday, the meeting will be rescheduled for later that week. The meetings are open to Lab employees and their dependents.

For the meeting location and time, those interested in attending may call EAP, Ext. 4567; callers will not be asked to leave their name, and all calls are confidential. Meeting information may also be obtained by writing to P.O. Box 641, Upton NY 11973.

Catch a glimpse of
GLANCE
playing in Berkner Hall
weekdays, 11:30 a.m. to 2:00 p.m.
Show changes every Tuesday.

Gospel Extravaganza Leads Black History Month Events

A joyous welcome to Black History Month will ring out in Berkner Hall tomorrow night, when the Afro-American Culture Club presents its 12th Annual Gospel Extravaganza. Featuring local community choirs, the extravaganza begins at 7 p.m., on Saturday, January 30.

At $12 each for adults and $5 each for children 12 and under, tickets may still be purchased today from Robert Brown, Ext. 3569, Bldg. 490; April Donegain, Ext. 2459, Bldg. 134A; Fran Ligon, Ext. 3709, Bldg. 185A; and Bruce Penn, Ext. 7213, Bldg. 197C.

In addition, the State University of New York at Stony Brook's Staller Center, 632-7230, has scheduled the following special events during February, to mark Black History Month:

- **Martin Luther King Jr. Celebration** — Actress Ruby Dee will share remembrances of King from her years of working in the Civil Rights movement. The evening will also include a performance by Stony Brook's Gospel Choir and the presentation of this year's Martin Luther King Jr. Scholarship Awards; Thursday, February 4, 7 p.m., tickets $6 each.
- ***Sophisticated Ladies*** — This Tony Award-winning musical salutes the genius of American jazz great Duke Ellington, featuring his most famous songs and illuminating his life from his early days at the legendary Cotton Club through years of international recognition; Saturday, February 13, 8 p.m., tickets $22/$20 each.
- **Arthur Fletcher, University Distinguished Lecturer** — Fletcher, who heads the U.S. Commission on Civil Rights, will talk about "A New Century, A New Challenge and A New Beginning"; Thursday, February 18, 8 p.m., free.

Service Awards

These employees had BNL service anniversaries during January.

Forty Years

John R. Weeks.....Nuclear Energy

Thirty-Five Years

Eugene S. Kaplan.....AGS
Joseph M. Savino.....Nuclear Energy
Stanley Seltzer.....Chemistry

Thirty Years

Chia-Jung Hsu.....Nuclear Energy
Marie A. Susa.....Medical

Twenty-Five Years

Charles T. Bellizzi.....NSLS
Naomi R. Pappas.....Medical

Ten Years

Kenneth R. Davis.....Plant Eng.
Janice K. Dell.....Personnel
Laurence D. Gibbs.....Physics
Anthony Schiavone.....Central Shops
Donald A. Shea.....Central Shops

Note: Elliott M. Levitt celebrated 10 years with AUI on December 6, 1992.

Basketball

Games of January 21

Scram 60		Deep Six 47	
A. Boerner	20	C. Butts	11
R. Mills	11	D. Languilli	10
T. Powers	8	D. Eleazer	9
J. Skonieczny	5	T. Lawrence	6
J. Simms	4	U. Tapley	6
E. Gregory	4	N. Tyler	3
V. Cassella	4	R. Mayo	2
P. Bergh	2		
J. Duggan	2		

**3-point shots:* C. Butts

Runaways 67		Trailblazers 64	
W. Cummings	26	T. Mayo	27
J. Gaeta	12	G. Mack	9
C. Saxen	12	R. Domenech	6
B. Wells	10	B. Gunther	6
G. Shepherd	5	S. Springsteen	6
L. Furenlid	2	T. Fountaine	4
		C. Edwards	4
		M. Leblanc	2

**3-point shots:* W. Cummings, R. Domenech (2), J. Gaeta, T. Mayo (3)

League Standings:			
Magic	1-0	Trailblazers	1-1
Runaways	1-0	Scram	1-1
		Deep Six	0-2

Hospitality News

The next Hospitality Committee get-together is on Tuesday, February 2, hosted by Sarah Nealy at the Brookhaven House, the current residence of Sarah and Carson Nealy, Manager of the U.S. Department of Energy's DOE Brookhaven Area Office. Attendees will gather at the Recreation Building at 9:30 a.m., then carpool to the meeting, during which guest speaker Barbara Bruger will talk about Valentine's Day.

Spouses of Lab employees and guests are welcome. Bring the children, but please also bring along a toy or two.

Lifeguard Training

BERA will offer a lifeguard-training course at the BNL swimming pool. Consisting of eight 3-hour classes on consecutive Saturdays, beginning February 13, from 9 a.m. to noon, it will cost $100. Register at the pool before February 13, class size will be limited. At the first class, participants, who must be at least 16 years old, must pass a swimming pretest.

For more information, call Susan Juzwak, Ext. 3147 or 3496, after 4 p.m.

Bowling

Red/Green League

R. Larsen bowled a 255/215/213/683 scratch series, S. DiMaiuta 244/212/636 scratch, A. Warkentien 233, K. Asselta 223/204, F. Griswold 223/205, H. Arnesen 215, E. Meier 210, R. Jansson 204/201, J. Muller 204, P. Radusewicz 204.

Purple League

Jim Biamonte bowled a 220, Jim Goode 206/202/569 scratch series, Ed Beadle 213, Bob Geib 213, Debbie Keating 199, Lorraine Roecklein 188/186/537 scratch.

White League

Ray Raynis bowled a 215/554 scratch series, Jim Petro 204/557 scratch, Lorraine Petro 201, Norman Besemer 196, M. Reynolds 189, Ron Dobert converted the 5-10 split.

Volleyball

Standings as of January 20

Open League		League I	
The Roofing Co.	31-8	Network News	30-6
GTeam	29-10	Upfagrabs	24-9
Me & the Boys	14-28	Rude Dogs	24-9
Farside	13-26	VolleyBallAholics	23-13
Penetrating Vollies	12-27	Underdogs	13-20
		Fornossing	3-30

League II		League III	
Monday Nite Live	28-5	Jolly Vollies	22-8
Safe Sets	24-9	Nutcrackers	18-12
Nuts & Bolts	17-16	Upton Ups	18-12
Fossils	17-16	High Volley'em	17-13
Net Wits	14-19	Silver Bullets	15-15
Night Court	14-19	Volley of the Dolls	15-15
Sourcerers	10-23	Hairballs	8-22
Just Up	8-25	Mis-Fits	7-23

Outreach Lecture
Fear of Feeling

If you are often anxious instead of eager to meet someone or do something, you may be familiar with that disquieting feeling of uneasiness, apprehension and fear of the unknown that is known as anxiety.

In addition to generalized malaise, anxiety manifests itself in several forms — from a phobic fear of something like heights, to an attack of inconsolable panic, to the compulsive rituals of an obsession, to stressful flashbacks to traumatic events.

During the next Outreach workshop, "The Fear of Feeling — New Directions in Understanding and Treating Anxiety Disorders" will be discussed by clinical psychologist and psychoanalyst Joel Kuppersmith. Sponsored by the Employee Assistance Program (EAP), the talk will take place on Tuesday, February 2, from noon to 1 p.m. in Room B, Berkner Hall. All are invited; the talk will be audiotaped.

After reviewing the symptoms of anxiety disorders, Kuppersmith will contrast past treatments for anxiety with a revolutionary new approach that has been more effective and results in briefer treatment.

Kuppersmith received his Ph.D. in educational and counseling psychology from the University of Mississippi, then completed a postdoctoral internship in clinical psychology at Downstate Medical Center. He received his certificate in psychoanalysis and psychoanalytical psychotherapy from the Institute of Advanced Psychological Studies of Adelphi University.

In private practice in Huntington, Koppersmith specializes in short-term treatment of anxiety disorders, and treats children of alcoholics and victims of sexual abuse.

To register for this workshop, complete and return the bottom portion of the Outreach flyer sent to all employees to EAP Staff Psychologist Dianne Polowczyk, Bldg. 490.

Healthline & Outreach Coming Up

Nine lunchtime presentations on health and mental-health topics have been planned for this winter and spring, under the Healthline lecture series of the Health Promotion Program and the Outreach workshop series of the Employee Assistance Program (EAP).

Under the auspices of the Occupational Medicine Clinic, the Healthline series presents talks on topics related to healthy living, while the Outreach series offers discussions of psychological issues and social problems. See future issues of the Bulletin for details on each presentation, or, for general information, call Ext. 5923 about the Healthline lectures, or Ext. 4567 about the Outreach workshops.

Date	Series & Topic	Speaker
Feb. 2	**Outreach**: The Fear of Feeling — Understanding Anxiety Disorders	Joel Kuppersmith, Ph.D.
Feb. 9,23, Mar. 1, 9	**Outreach**: Stress Management Workshop*	Susan Dermit, Ph.D.
Feb. 16	**Outreach**: Of Macho and Men	Donald-David Lusterman, Ph.D.
Mar. 16	**Healthline**: Update on Menopause	Fredi Kronenberg, Ph.D.
Mar. 30	**Healthline**: Testicular and Prostate Cancer Exams	Wayne Waltzer, M.D.
Apr. 13, 20, 27	**Outreach**: Current Issues in Workplace Psychology	To be announced
May 4	**Healthline**: Women and Heart Disease	Steven Horowitz, M.D
May 11	**Healthline**: Emergency Medicine	Ronald Paynter, M.D.
Jun. 1	**Outreach**: Psychological Issues of Later Life	Michelle Steinberger, Ph.D.

** Though registration for this four-part workshop is closed, call Ext. 4567 to get on the waiting list for the next one.*

Cafeteria Menu

Monday, February 1

Soup: Chicken noodle	.80/1.10
Entree: Baked BBQ chicken	3.45
Lite Choice: Pasta w/basil & tomatoes	3.25
Carvery: Hot pastrami sandwich	2.95
Grill: Tuna steak w/wild rice	3.65
Taster's Bar: Chicken wings	(oz.) .25

Tuesday, February 2

Soup: Tomato rice	.80/1.10
Entree: Vegetable lasagna	3.35
Lite Choice: Sauteed chicken & broccoli	3.45
Carvery: Hot roast beef sandwich	2.95
Grill: Small burger & soda	1.25
Taster's Bar: Baked potato	

Wednesday, February 3

Soup: Potato kale	.80/1.10
Entree: Yankee pot roast	3.45
Lite Choice: Quiche Lorraine	3.35
Carvery: Hot ham sandwich	2.95
Grill: Ham, cheese & bacon platter	3.25
Taster's Bar: Chicken nuggets	(oz.) .25

Thursday, February 4

Soup: Cream of broccoli	.80/1.10
Entree: Pork loin w/stuffing	3.65
Lite Choice: Stuffed vegetarian peppers	3.25
Carvery: Hot corned beef sandwich	2.95
Grill: Steak-um grinder	2.95
Taster's bar: Hot wings	(oz.) .25

Friday, February 5

Soup: Manhattan clam chowder	.80/1.10
Entree: Prime rib of beef au jus	4.25
Lite Choice: Baked fish Provencal	3.65
Carvery: Hot turkey sandwich	2.95
Grill: Tuna melt platter	2.95
Taster's Bar: Fried mixed vegetables	(oz.) .25

Movie Night . . . Brookhaven Center
Wednesday February 3 . . . 8 p.m.
Sister Act . . . free popcorn!

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LIZ SEUBERT, Reporter

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(516) 282-2345

Berkner Auditorium Due for Renovation

From February 1 to March 12, the Berkner Hall auditorium is scheduled to be closed for extensive renovations. All other parts of the building, including the conference rooms, lobby and Cafeteria, will remain open. For a list of the other large meeting rooms on site and the contacts for reservations, consult page 121 of the yellow pages in the Lab telephone directory.

Arrivals & Departures

Arrivals

Timothy P. Caufield.....Plant Eng.
Vincent P. Gartmayer.....Plant Eng.
Jeremiah G. Magee.....Plant Eng.
Zoran Mursic.....Chemistry
David A. Pascarella Director's Office

Departures

This list includes all employees who have terminated from the Lab, including retirees:

Jane D. Bennett.....Budget
Cynthia A. Loehr.....Saf. & Env. Prot.
Lynn A. Zigrosser.....Chemistry

Let's Dance

Members of the BNL Ballroom, Latin & Swing Dance Club are reminded that preregistration for the next series of dance lessons — waltz and merengue — will take place next Wednesday, February 3, before and after the last class of the current series. Open registration will be held for new members before the first class on Wednesday, February 10.

The cost is still $15 per person; depending upon how many people sign up, the waltz and merengue series will last six to eight weeks. Classes are held on Wednesdays from 5:15 to 6:30 p.m., usually in the North Ballroom of the Brookhaven Center. For more information, call Marsha Belford, club president, Ext. 5053.

Note to Employees:

Attendance at lectures, meetings and other special progams held during normal working hours is subject to supervisory concurrence.

Send a Love Note To Your Valentine

Is there a special message you'd like to send to your valentine? Are you looking for a valentine? You can have your Valentine's day message printed in the Bulletin on February 12. Send your 15-to-20 word "love note" to the Bulletin, Bldg. 134, by Friday, February 5. Use a Sales & Notices Bulletin classified ad form, but mark it "Valentine's Day." You must sign your name and include your life number and extension, but your name will not be printed unless it is clearly part of the message. Copy must be deemed tasteful. All "love notes" will be accepted at the Bulletin's discretion. Only one message per employee, please.

Camera Club

BNL will be the theme of the next Camera Club exhibit. Photographs taken at BNL must be at least 8"x10" or larger, and each must have an attached hanger. Bring display-quality material to Berkner Hall at 5:30 p.m. on February 4. For information, call Ripp Bowman, Ext. 4672, or Lew Jacobson, Ext. 5193.

Software Demo

IBM's Ken Bronstein will be in the large seminar room of Physics, Bldg. 510, on Thursday, February 4, at 10 a.m. to discuss IBM's strategy and direction for AIX, the UNIX operating system for the RS6000. He will also provide an overview of new RS6000 models, to be announced shortly, as well as the first offering from IBM's newly established Massively Parallel Laboratory, the products from which will be based on the same RISC architecture used in the RS6000.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Consideration is given to candidates in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action plan, selections are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and, second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

SCIENTIFIC RECRUITMENT - Candidates may apply directly to the department representative named.

POSTDOCTORAL RESEARCH ASSOCIATE - trained in prokaryotic molecular biology, with a background in oceanography, limnology, or microbial ecology and experience with DNA hybridization, PCR, epifluorescence microscopy and oligonucleotide probes. Must be able to take part in research cruises. Contact: Paul F. Kemp, Department of Applied Science.

SCIENTIST - Requires a Ph.D. degree in physics and extensive experience in the design and implementation of both data acquisition systems and high-level accelerator control software sequencers. Contact: S.G. Peggs, RHIC Project.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD 0482. SECRETARIAL POSITION - Requires an AAS in secretarial science or equivalent and several years' relevant experience, as well as excellent communication skills, a knowledge of Laboratory policies and procedures and familiarity with scientific word processing. TeX experience desirable. Will provide varied secretarial support for the High Energy Theory Group. Duties will include preparing technical manuscripts, correspondence and reports, as well as coordinating travel and an active visitors' program. Physics Department.

DD 0871. SECRETARIAL POSITION - Requires an AAS in secretarial science or equivalent and a good knowledge of Laboratory policies and procedures. Word processing experience also required; Macintosh experience desirable. Will perform diverse secretarial duties including technical typing, correspondence and maintaining files. Chemistry Department.

DD 10183. SECRETARIAL POSITION - Requires an AAS in secretarial science or equivalent and a knowledge of both Laboratory policies and general office procedures. IPAP experience highly desired as is shorthand experience; WordPerfect experience required. Will input purchase orders, RFQs and prepare contract files. Division of Contracts and Procurement.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

LS 2484. MEDICAL RECORDS POSITION (part-time) - Requires RRA and ART credentials. Experience in the occupational health system desirable. Responsibilities include medical records administration, ICDM encoding of significant diagnoses, obtaining authorization to review records or reports, as well as verifying hospitalizations or pathology reports. Occupational Medicine Division.

LS 6149. TECHNICAL POSITION - Requires a BSET or equivalent, or an AAS degree in electrical technology and relevant experience. Primary responsibilities include experimental safety operations, safety operations, safety system checkouts, monitoring user safety and conduct of experiments at the beam lines. Shift work is required and some cross training will be done with storage ring operators. National Synchrotron Light Source Department.

LS 3540. TECHNICAL POSITION - Requires an AAS or equivalent in a technical field, knowledge of vacuum systems, some experience in electronics or electrical systems, and a high degree of manual dexterity. Responsibilities include providing general laboratory assistance for electron microscopy specimen preparation, and upkeep of vacuum and electrical systems equipment. Department of Applied Science.

NS 0644. ENGINEERING POSITION - Requires an engineering degree and several years' recent experience in nuclear power plant operation and operating-procedure development. Responsibilities will include coordinating the development of new and revision of existing procedures and descriptive material for BNL reactor facilities, and participation in special assignments, such as audits and the review of training materials. Excellent communication skills, and the ability to write, and organize technical information into documents required. The ability to work briefly on rotating shifts required, as is the ability to obtain and maintain a security clearance. Reactor Division.

DD 0724. OFFICE SERVICES POSITION - Requires an AAS or equivalent experience, and excellent secretarial and communication skills. Knowledge of word processing required; WordPerfect 5.1 preferred. Familiarity with a variety of PC-based programs desired. Will provide primary support to the Housing Office and act as backup to Transportation and Division Offices as required. Duties will include general administrative functions, housing reservations and in-house support of automated reservations systems including data management, preparation of billing documents and liaison with resident, housekeeping and maintenance staff for scheduling maintenance and repairs. (reposting) Staff Services Division.

DD 1095. TECHNICAL POSITION - (term appointment) Requires an AAS in a technical field or equivalent experience. Responsibilities will include assisting in the assembly, testing and installation of magnets and associated equipment for use in the RHIC injection beam line. Demonstrated proficiency in both the mechanical and electromechanical fields required. RHIC Project.

DD 0196. CONTRACTS POSITION - (term appointment) Requires BA in business or equivalent experience and a knowledge of Federal Acquisition Regulations. Must be well versed in all aspects of procurement, have the ability to draft RFPs, contract modifications and special provisions, and perform analyses of cost and man-hour estimates. Experience with research-and-development procurement is essential. Division of Contracts and Procurement.

Motor Vehicles & Supplies

91 CHEVROLET CAVALIER Z24 - sports coupe, blue, 6-cyl., 10k mi., ac, estate sale, $10,500. Sharon, Ext. 3995.

90 PLYMOUTH VOYAGER - 36k mi., V-6, ac, am/fm tape, a/t, p/l, p/w, tilt, cruise, v.g. cond., $9,900. Chuck, 589-8102.

89 CHEVROLET EUROSPORT WAGON - fully loaded, V-6, 29k mi., $7,500. MajBritt, Ext. 2381.

89 GEO METRO - 4-dr., 5-spd., red, am/fm, ac, 50+ mpg, 92k mi., $2,495. Joe, Ext. 2898.

86 FORD F-150 - 63k mi., Sony Benzi, bedliner, good 31" tires, new brakes, front end, springs, work truck, $4,500. Bill, 878-4356.

86 PLYMOUTH VOYAGER - 2.6L, a/t, am/fm stereo, ac, 80k mi., v.g. cond., Ext. 4830 or 341-1020 eves.

86 TOYOTA TERCEL WAGON - 4wd, 55k mi., p/s, p/b, ac. Mike, Ext. 4789.

85 SUBARU XT - light blue, sunroof, 5-spd., 96k mi., well maintained, $1,900. 588-9325.

85 BUICK SKYHAWK - 4-dr., silver, a/t, p/s, p/b, ac, am/fm, 4-cyl., 87k mi., excel. cond., $2,300. Alex, Ext. 3723 or 341-1018.

83 CHEVY WAGON - V-8, ac, p/.b, p/s, new tires, 148k mi., excel. cond. Uwe, Ext. 5640.

81 DATSUN B210 - 2-dr. h/b, a/t, good cond., looks great, $1,200. Russ, Ext. 3059 or 758-3952.

The Brookhaven Bulletin is printed on paper containing at least 50 percent recycled materials, with 10 percent post-consumer waste.

82 SUZUKI GS1100EZ - 15k mi., new tires, 911 stock, red, mint cond., $1,800. Harry, Ext. 4574 or 474-4410.

78 TOYOTA COROLLA - new battery, runs well, $350 neg. Ron, Ext. 5010.

78 MERCURY COUGAR - runs well, $400. Duke, Ext. 2957 or 289-3586.

78 DODGE DIPLOMAT - 318 V-8, 4-dr., a/t, 100k+ mi., reblt. trans., new radiator, runs well, needs rear end, $200. Don, Ext. 7237 or 744-2921 after 5 p.m.

70 PONTIAC CATALINA - 350 engine, a/t, p/s, p/b, all orig. equipment & paint, mint cond. Dave, Ext. 4660 or 286-8119.

61 FORD FALCON - 6-cyl., 2-spd., a/t, all orig., no rot, many new parts, runs well, needs paint, $1,900. 589-2032.

CLUTCH - '80 Toyota Tercel, 5-spd., $40. Bob, Ext. 7238.

BIKINI TOP - for CJ7 Jeep, blue, $25; CJ bumper w/fog tabs, $30; T-top storage covers, brand-new, $25. Chuck, 821-1525.

HARYLEY DAVIDSON S&S - carburetor intake manifold for EVO sportster, $185. 286-0654 eves.

Boats & Marine Supplies

22' FORMULA - 1984, 250 Mercruiser, 2 axle Shoreline trailer, all options, mint cond., $13,200. Ken, 473-7460.

19' CELEBRITY - 1985, cuddy cabin, 175-hp i/o, VHF, porta-potty, dual batteries, low hours, $4,250. Brian, Ext. 4028.

Furnishings & Appliances

ANTIQUE ROCKERS - (3), upholstered in custom fabric, maple wood, $300/all. 722-3905.

BEDROOM SET - Colonial, 10 yrs. old, good cond., orig. $1,500, sell for $400. John, Ext. 2980.

BEDROOM DRESSERS - $30/ea.; full-size headboard w/shelf, needs painting, $30; china cabinet, $30. Sue, Ext. 2477 or 758-9775.

BEDROOM SET - full 4-poster bed, bureau, dresser w/mirror, 2 night tables, $300; woman's vanity w/trifold mirror, $50. Sharon, Ext. 3995.

BLIND - Levelor, 5'10"x4', alabaster, almost new,, $5. Pat, Ext. 5406.

BREAKFRONT - early American, pine, $250 neg; drapery rod, wood, draw back, 11'2" long, $10. Norman, 399-1125.

COUCH & CHAIR - gold/green, $100/both; swivel rocker, print color, $25. Paul, 727-4859.

DESK - for computer, w/shelves, drawer, teak grain finish, good cond., $40. Tom, Ext. 7196 or 286-2505.

DRAPES - 90" long, various widths, 280" total width, insulated beige & white, $75. John, Ext. 4028.

ELECTRIC PASTA MACHINE - Simac, best offer. 744-4611 after 6 p.m.

ESTATE SALE - 5-piece bedroom set; large living rm. wall unit; hutch, dining room set; washer/dryer; collectibles. Bill, 878-6016.

REFRIGERATOR - Whirlpool, 19 cu. ft., new, almond, $400; Kenmore stove, double oven, almond, $300, $600/both. Bob, Ext. 7238.

STOVE - LP Gas, Caloric, pilotless ignition, ultra-ray broiler, model #RSR350, $100. Gary, Ext. 3268.

VACUUM CLEANER - Eureka, upright, excel. cond., $30. Ext. 2679 or 472-6922.

Tools, House & Garden

CAST-IRON STOVE - fg stall shower, gold, 16' alum. garage door, cast-iron radiators, solar heating unit. G. Rackett, Ext. 7148.

FIREWOOD - seasoned oak. J. Scesny, 732-2849.

TABLE SAW - Ryobi radial-arm saw/router, 8½" cut w/stand, $175. Ed, 821-1169.

Sports, Hobbies & Pets

BIKES - Huffy, 26", man's & woman's, 3-spd., touring, $25/ea. Bridget, Ext. 2119 or 821-1169.

DOVES - pair, ringed neck, beige, w/new gold & black Hendrix cage, $140. Kelly, Ext. 744-3069.

GUITAR - Franciscan, Spanish style, nylon strings, w/case & 2 starter books, never used, $100. Larry, Ext. 4295.

KILN - Gare model 1818, w/8 ga. wire, breaker, outlet, some molds, $600. Rob, Ext. 2502.

SLEEPING BAG - Northface, down filled, $25; Northface backpack w/frame, $20; Shwinn continental bike, 10-spd., $25. Dave, Ext. 5465.

SEWING MACHINE - white, w/cabinet, $100 neg. Norman, Ext. 4446.

SOLOFLEX - 2 yrs. old, like new, w/leg & butterfly attachment, new set of wt. straps, under warranty, $800. 931-935 after 5 p.m. weekdays.

SOLOFLEX - w/leg & butterfly attachments, new straps, $800. Vic, 543-7674 after 6 p.m.

TENNIS RACKETS - $20/ea.; chair, $10; twin bookcase headboard, $25; mirrors, $20/ea.; cane walker, $20; ice skates, $20;. Kathy, 744-2203.

Audio, Video & Computers

APPLE MAC II - 5MB RAM, 100MB internal hard disk, 13" high-resolution color monitor, video card, $2,500 or best offer. Chris, Ext. 5692.

CDs - classical, variety of labels, mostly collections, one/$5, two/$8. Ext. 5919 or 722-3010.

CDs - Verdi, Ballo, Pavarotti, Price, Solti, new, shrink wrapped, $20; Mozart serenades, Mozart piano concerti, $5/ea. Culwick, Ext. 4930.

SPEAKERS - Fisher XP56, twin, $75; Phone-Mate answer. mach., $25; new car speaker, Radio Shack, flush mount, 4, $15. Fred, 341-1007 after 7 p.m.

MOTHERBOARD - 386DX, 25 MHz w/4 meg ram, $300. 286-0654 eves.

COMPUTER - 286 AT, w/monitor, IBM clone, excel., $700. Steve, 243-4594.

COPIER - Xerox, model 1020, plain paper, includes extra dry toner cartridges, $750. Rob, Ext. 2502.

Miscellaneous

GERMAN BOOKS - 19th & early 20th C., leather bound, complete, Goethe, Schiller, etc., Brehms Tierleben. Art, 862-6185 days or 941-9115 eves.

BOOKS - *The Rebel Angels*, Robertson Davis; *Vibrations & Waves*, French Copies limited. Margaret, 473-9129.

DRAFTING TABLE - oak frame drawers, disassembled, best offer over $25. Carl, Ext. 4986 or 929-5781.

EARRINGS - diamond, half-carat total weight, orig. $600, sell for $400. 821-1169.

MET OPERA TICKETS - 2, matinee, 2/6, *Trovatore*, side orchestra, half price, $80/two. Culwick, Ext. 4930.

MET OPERA TICKETS - Sat., 1/30, matinee, *Um Ballo in Maschera*, row K orch. center. Ext. 3922.

WEDDING GOWN - pastel pink, backless, satin/pearl bodice, crinoline ruffle skirt & train, size 3/4, petite, orig. $650, best offer. 736-2230.

Free

CAT - female, 4-yr.-old black tortoise-shell, declawed, spayed, affectionate. Vic, Ext. 7016.

DOG - female Lab mix, needs loving home w/yard. Kelly, 563-6062.

DOG - 2-yr.-old shepherd mix, female, black/tan, loves children/watchdog. Lisa, 698-4882, after 6.

Lost & Found

LOST - keys & blade electrician's knife, 1 key w/black handle for Dodge auto. Bob, 261-3890.

Wanted

DRAWING TABLE - 31"x42" or 24"x36" size. John, Ext. 7671.

HOUSEKEEPER - for busy working couple, $200/wk. + separate living quarters. George, Ext. 5973.

OAK FLOORING - new or used. Phil, 924-9668 or 727-3010.

PEOPLE TO EXPRESS VIEWPOINTS - in informal discussions on "Great Decisions." Margaret, 473-9129.

RECORDS - 33⅓ or 45 rpm, polkas, any year, rock & roll, 1955-65. Frank, Ext. 3120 or 727-5096.

RIMS - 4-hole, 13", for Chevy Vega. Bill, Ext. 4988 or 698-4882 after 6 p.m.,

RIM - 14" to fit Ford or Mercury, late 70s; trailer, 20'-24', working condition, older models okay. Don, Ext. 7237 or 744-2921 after 5:30 p.m.

SAILBOAT - Sunfish, good cond. Damian, 924-9668 or 744-5079.

SKIERS - for Hunter, 2/3, $45; Windham, 2/17, $42; send payment to Augie Hoffman, Bldg. 510C.

TELESCOPE - minimum 6" reflector equitorial or dobsonian mount. Mark, Ext. 4289.

Classified Ad deadline is 4:30 p.m. Friday for publication Friday of the next week.