

F E R M I N E W S

F E R M I L A B

A U.S. DEPARTMENT OF ENERGY LABORATORY



Fermilab Visual Media Services

ALL TECHNICIANS ISSUE

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Fermilab TECHNICIANS

BEAMS DIVISION

www-bd.fnal.gov

208 Technicians

- 4 Lab Assistants
- 3 Lab Techs
- 15 Tech I
- 52 Tech II
- 73 SR Tech
- 34 Tech Specialist
- 18 Operations Specialist
- 9 Operations Specialist SR

BUSINESS SERVICES SECTION

<http://www-bss.fnal.gov>

2 Technicians

- 2 SR Techs

COMPUTING DIVISION

<http://computing.fnal.gov>

19 Technicians

- 2 Tech II
- 7 SR Tech
- 9 Tech Specialist
- 1 Operations Specialist

DIRECTORATE

www.fnal.gov/directorate

1 Technician

- 1 Tech II

ENVIRONMENT, SAFETY AND HEALTH SECTION

www-esh.fnal.gov

16 Technicians

- 5 Tech II
- 5 SR Tech
- 6 Tech Specialist

FACILITIES ENGINEERING SERVICES SECTION

www-fess.fnal.gov

9 Technicians

- 1 Tech II
- 3 SR Techs
- 3 Tech Specialist
- 2 Operations Specialist

LABORATORY SERVICES SECTION

<http://fnalpubs.fnal.gov/lissection>

2 Technicians

- 1 Lab Techs
- 1 Tech II

PARTICLE PHYSICS DIVISION

<http://ppd.fnal.gov>

167 Technicians

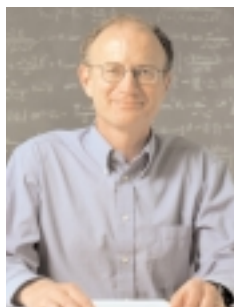
- 2 Lab Techs
- 14 Tech I
- 28 Tech II
- 68 SR Tech
- 41 Tech Specialist
- 9 Operations Specialist
- 5 Operations Specialist SR

TECHNICAL DIVISION

www-td.fnal.gov

74 Technicians

- 1 Tech I
- 24 Tech II
- 35 SR Tech
- 6 Tech Specialist
- 6 Operations Specialist
- 2 Operations Specialist SR



Fermilab Director
Michael Witherell

Wherever you look at Fermilab—in every division and section, in experiments, computing, accelerator operations, R&D, infrastructure, safety, the environment—you find teams of outstanding technicians at work. More than 450 strong, they build, operate, maintain, fix and develop the tools of particle physics research that make Fermilab a great physics laboratory.

As a field, high-energy physics has always depended on the skills of generations of talented and dedicated technicians. Today, as the tools of our science grow increasingly sophisticated, the role of technicians is more important, and more challenging, than ever.

Twenty-first century particle physics requires extraordinary technical skills and capabilities. Fermilab's technicians meet the challenge every day—as well as nights and weekends. With this issue of *FERMINEWS*, the laboratory recognizes the vital part they play in achieving Fermilab's scientific mission.

–Couldn't Do It Without Them



Photo by Reidar Hahn

Modern particle physics experiment collaborations number hundreds of university scientists from across the globe. None of these experiments would function without the day-in, day-out contributions of the technicians who work alongside physicists and engineers to build, repair, maintain and operate these almost unimaginably complex scientific instruments. Similar collaborations operate Fermilab's unique accelerator complex, with its thousands of magnets, pumps, joints, vacuum systems, electronics, power supplies, wires, cables, cryogenic systems and instruments. Others build, test and deliver the components for the particle physics of the future, the high-field superconducting magnets that Fermilab will supply to the Large Hadron Collider at CERN. Still others keep our infrastructure functioning, our computer

networks operating, our water and our electric power flowing, our workplace safe and our environment sound. Collectively, Fermilab's technicians possess a wealth of unique technical knowledge and experience that could never be replaced. We could not do it without them.

On June 26, many technicians gathered outside Wilson Hall for a photo to honor their contribution and their key role in the life of our laboratory. I wish we had room in this issue to recognize all the technicians at Fermilab. Although the pages of *FERMINEWS* can highlight only some of the outstanding work and fascinating stories of Fermilab technicians, my thanks go out to every one of them. ☒

Keep it RUNNING



Photo by Reidar Hahn

Technician Greg Lawrence coordinates magnet replacements for Fermilab's accelerators.

by Kurt Riesselmann

Fermilab technicians do it all. From moving 11,000-pound magnets to maintaining multi-megawatt power supplies to designing ultrafast electronics, technicians are in the thick of it. Above all, they keep the lab running—24 hours a day, seven days a week.

"Everybody in the Mechanical Support group carries a pager," said lead technician Greg Lawrence, who manages a group of 25 mechanical technicians. He also is in charge of coordinating the replacement of defective accelerator magnets. "On Wednesday (July 2) a Main Injector magnet failed at 11 a.m. The technicians worked until 2 a.m. to replace it."

Magnet replacements bring together employees with a wide range of knowledge: radiation technicians who give the okay for the work to begin; electrical technicians who disable the high-voltage power; mechanical technicians who disconnect the vacuum and water system; welders who cut the beam pipe so that mechanical technicians can replace the defective magnet; truck drivers and movers who haul away the old magnet and bring in a new one from storage; surveyors who align the new magnet.

Over the course of the event about 20 people, mostly technicians, contribute to the job. Some are only needed for a few minutes—perhaps in the middle of the night—while others are there for 12 hours or more.

"To me it's fun. We are the mechanics that fix the car," said Lawrence, evoking the image of a pit crew working on a racing car. Time is of the essence when an accelerator breaks down. The less down time, the more research possibilities.

Not all accelerator-related tasks draw as much attention as a magnet replacement.

"We've done such a good job at keeping the Linac running that people almost forget that we are here," said lead technician Lester Wahl of the Linac group. "If our system goes down there is no beam, either."

Wahl joined the lab in 1970 when the Linac was built. At that time there were about 80 people in the Linac group. Today, six technicians and a couple of engineers care for the machine. Recent retirements have increased Wahl's responsibilities, and he emphasizes the importance of instructing the younger technicians in his group.

"With every person who retires we lose a great deal of expertise," he said. "I provide hands-on training to the less experienced people. We have a spare Linac system outside the tunnel, fully accessible at all times."

As Fermilab's accelerators get older, preventive maintenance is more important than ever. Water hoses used in the cooling systems last only a few years. Other mechanical components need lubrication and testing. Some electronic components such as capacitors have a limited lifetime and need to be replaced before they fail. On top of that, engineers and scientists constantly make improvements to the accelerator complex.



Photo by Jenny Mullins

Tech specialist Ken Koch with circuit boards for Tevatron Beam Dampers.

“There are always maintenance and upgrades to be done. I do different things every day,” said tech specialist Wes Mueller. For 18 years, he and Pete Seifrid have worked together on accelerator upgrades. In recent years they’ve worked on the electronics for stochastic cooling equipment, building gigahertz high-frequency systems with ultrashort response times.

Many technicians are in charge of specific subsystems of the accelerator complex. They are responsible for their maintenance and repairs. When a subsystem fails, the operators in the Main Control Room call in the corresponding person—in the middle of the night, if necessary.

“The technicians are proud of their work and their equipment,” said Cons Gattuso, a physicist who began his Fermilab career as an operator in the accelerator’s Main Control Room “They go out of their way to get the job done.”

Engineer Dan Wolff is head of the Electrical/Electronics Support department of the Beams Division. His group of 50 people, mostly technicians, is responsible for the power supplies of the magnets in the accelerators.

“The lab operates pretty unique power supplies,” said Wolff. “We design and build them ourselves, buying the necessary parts from manufacturers.”

Over the Fourth of July weekend, when Fermilab’s accelerators encountered a series of problems, Wolff’s group was there to help.

“Since we have good technicians, I usually don’t have to come in at all,” said Wolff. “But this was very unusual. I came to the lab three times that weekend, and at least eight of my technicians and two engineers were called in at one time or another as well. Typically, it’s only one person per weekend.”

Like many technicians at the lab, Ken Koch began as Technician I and worked his way up. Twenty years later, he is a tech specialist working in the Tevatron Department.

“The lab is an incredible training ground for anyone,” said Koch, who works on electronics in a small workshop. “I work in a small group of technicians that can make things happen fast. There are two engineers and a number of physicists. They have the ideas—we make them happen. Within a day or two we are producing the kind of circuit board they need. It’s never boring. It’s like putting puzzles together.”

Together, Koch and his colleagues in every area keep the lab running. 🧑‍🔧

Moving UP

by Sena Desai

Donna Hicks worked full-time, raised a son, and went to school. Not easy, but it paid off.

Donna Hicks has made powerful use of the educational opportunities available to Fermilab employees. Hicks earned her physics bachelor's degree while working full-time at Fermilab, starting as a mechanical technician and advancing to become an engineering physicist.

"Donna always performed well, technically and academically, and the laboratory benefited from the education she got," said Karen Kephart, who supervised Hicks for 18 years. "For every class she took, I saw an immediate improvement in her work. She applied everything she learned. Donna has more than paid back the laboratory's investment in her education."

Hicks succeeded despite difficult odds. Raised in a Chicago suburb where girls were not encouraged to attend college, she was determined to further her education. As a single mom, she raised her son while working as a technician in a male-dominated field and going to school part-time. Along the way, Hicks said, help came from friends, co-workers and supervisors, but it was her drive, inquiring mind, and enthusiasm that pushed her ahead.

Hicks came to Fermilab by chance 23 years ago. She was studying for an associate degree in material testing at Moraine Valley Community College when her instructor discovered, on a visit to Fermilab, that the laboratory was looking for technicians for its quality control group. Hicks applied and was hired.

For the first three years, Hicks worked in the Technical Division performing mechanical inspections of the Tevatron's superconducting magnets. "It was confusing in the beginning," she said. "But I always asked people questions—not just technicians but physicists and engineers."

There was just one other female technician in Hicks' group of 15 people, a situation that sometimes presented a challenge. Some male colleagues expressed the view that women should stay home.

But Hicks had experience surviving in a male-dominated place; only one other woman had taken the same classes as Hicks at Moraine Valley Community College, and Hicks knew how to hold her own. "I just asserted my viewpoint on important things," she said. Over the years the resentment towards women technicians has mostly disappeared, Hicks reports, and there are now 57 female technicians at Fermilab.



Starting as a mechanical technician 23 years ago, Hicks completed a bachelor's degree along the way, and is now an engineering physicist at the Technical Division's Materials Development and Testing Laboratory.

After three years testing magnets, Hicks transferred to the Physics Section, now incorporated in the Particle Physics Division, where she helped build detectors for many Fermilab experiments including CDF, DZero and MiniBooNE. She has spent many of her 23 years in the laboratory working on research and development projects for particle detectors.

And all the time she took classes, often taking courses whose application was not clear to others. She once took a photography class, gaining knowledge that came in handy years later when Hicks worked with Fermilab physicist Adam Para designing an emulsion detector for the MINOS experiment.

The detector would search for the oscillations of neutrinos. Hicks spent hours in the darkroom testing emulsions to find the right one. "It helped that she was aware of darkroom technology and emulsions from photography class," said Para. The use of emulsion in the detector was later discarded for a more cost-effective technology, but Hicks said it is still her favorite project.

"She is part of a unique group at Fermilab," said Kephart. "She understands that research and development means you work hard and still things may not pan out."

"She has the enquiring mind of a scientist and is extremely eager to learn and find solutions for herself," said Para.

It was Hicks' enquiring mind that led her to a bachelor's degree.

In the early 1990s Hicks worked on a project with Fermilab physicist Win Baker. Baker had designed an experiment very close to the Tevatron's beam and wanted to see if it affected the beam's properties in any way. Hicks worked with Baker using equipment to test beam properties in the presence of scintillator. It whetted her appetite — she decided she needed to know more about the relation between chemistry and physics.

Hicks enrolled in chemistry classes at Waubesa Community College. On the first day she ran into Beams Division technician Dan Bollinger. Bollinger was one of the many Fermilab technicians who were going to school while working at Fermilab. He is currently an engineering physicist completing his Ph.D. at Northern Illinois University. Bollinger



Photos by Jenny Mullins

Hicks testing the tensile strength of an experiment's component using the Instron—an universal mechanical strength-testing machine.

suggested Hicks transfer to Aurora University, his alma mater, to pursue a physics degree. Hicks took his advice.

But it was not easy. Hicks had divorced in the early 1980s and was raising her younger son, working full-time and taking classes at night. "I had no life," she recalled. She studied every moment she got, and weekdays merged into weekends. "I had to work very hard. I was not one of those people who got straight A's with little effort," she said. She pushed on, until she had enough credits for her bachelor's degree in physics in 2000.

"The thing about her that stays in my mind is that she managed to continue being a great technician as she went through her degree, class by class," said Kephart.

Earlier this year, Hicks transferred back to the Technical Division. She is now the lead person and chemical hygiene officer in the Materials Development and Testing Laboratory.

"The education enriched my life," she said.

But her learning days are far from over. Sunil Yadav, head of Materials Development and Testing Laboratory and her current supervisor, said he often catches Hicks reading chemistry books, still trying to understand and get to the bottom of things. 📖

ON THE WEB:
Fermilab's Tuition Reimbursement Policy
<http://fnalpubs.fnal.gov/train-dev/tuitpolicy.html>

Scintillation
plastic extruder
depends on the
**SKILLED
HANDS**
of operator
technicians

THE Right Touch

by Mike Perricone

Scintillating plastic is the lightning rod of a particle detector, collecting the energy from particle collisions, converting it into light and transporting the light to electronic readouts for transformation into digital signals that produce scientific data. Few particle physics experiments could exist without it.

Like virtually every piece of equipment in high-energy physics research, the new 70-foot extruder for scintillating plastic at Lab 5 offers new prospects for using everyday materials in the search for discoveries in the science of matter, energy, space and time. And like virtually every piece of equipment in high-energy physics research, the new 70-foot extruder will make its contributions because of technicians and operators who have used their skill, experience and savvy to get it delivered, set up and running.

"You just don't turn a key and get plastic," said Jerry Zimmerman, of the Technical Centers department in Fermilab's Particle Physics Division.

The \$550,000 assemblage of mixers, dies, and cooling tanks for turning molten mixtures into precision plastic was funded by Northern Illinois University and sited at Fermilab for the Northern Illinois Center for Accelerator and Detector Development.

"Fermilab is a world-class research facility, and NIU now has the equipment to produce novel scintillating detectors, so the collaboration makes perfect sense," said NIU physicist and NICADD codirector Jerry Blazey, who also serves as spokesperson at DZero.

The millions of feet of scintillating plastic required for such experiments as the Main Injector Neutrino Oscillation Search (MINOS) will still be made for the lab by commercial firms.

But trying out new methods and materials could run \$1,500 a day on similar equipment at a commercial firm. The Lab 5 extruder is a research tool, aimed at producing data on different scintillator compositions, and developing ways to improve production. The NIU Mechanical Engineering Department will provide two professors and several students to work on designs for extrusion dies and to develop software packages for simulating the fluid flow.

"It's a great tool for students," said materials scientist Anna Pla-Dalmau, leader of PPD's Scintillation Detector Development group and a specialist in scintillator for her 16 years at the lab. "It offers students a specific hands-



Photo by Reidar Hahn



Jerry Zimmerman inspects connections at the plastic extrusion line.

on approach. They can run simulations, and they can see what comes out of the die.”

But setting up the assembly line and handling the plastic that runs through it are tasks reserved for the seasoned pros like technicians Zimmerman and Chuck Serritella.

“When the machinery was delivered in February, there were so many mechanical and electronic challenges,” said research scientist Viktor Rykalin of NIU, who coordinates the R&D effort for NICADD. “Jerry and Chuck did incredible work to get this apparatus up and running.”

What was the biggest challenge?

“I can’t think of one big doozie, just lots of middle-sized ones,” Zimmerman said. “Setting up the dryer was maybe the biggest, since it was taller than the crane in the building. The riggers had to use a multistep approach to get it on to the platform.”

Followed by a multistep approach to get it running smoothly, from pellets dropped down a funnel to precise scientific instrumentation appearing at the other end.

“By being involved with every aspect of the installation and setup,” Zimmerman said, “we’ve learned almost every square inch of the machine. We can apply that knowledge to getting the best plastic. Our job as Operator Technicians is to improve the processes, not just do to them.”

Once the plastic content and feed rate have been decided, and the pellets have been dropped and melted, every inch of the process depends on

hands-on skill. Serritella explained that operators wear thick insulated leather gloves that have been soaked in water. The molten plastic begins its trek through the die and the cooling tanks at 200 degrees Celsius. Yet the production demands a fine touch by the operators—even through thick gloves.

“It comes out molten. What you have to do is cut it off, then shape it and feed it into the cooling baths,” Serritella said. “You continue feeding it over these rollers in the tanks of cooling water. The whole 70-foot line is done that way. Next there’s a tank of water where it’s sprayed to cool it more. Then there’s an air bath, then it moves into a puller that maintains the shape by pulling at the right rate. But it’s a “feel” thing. If you pull too hard, you’ll break it and it’ll run back down on the floor. If you pull too slowly, it’ll jam up and end up on floor again. The machine is coordinated by computer. Hopefully, when you get to the puller, it takes over and pulls at the proper speed. It’s still warm but completely solid. You move it onto the table where it’s cut to pre-determined lengths.”

For MINOS, those lengths reached 11 meters (about 35 feet), and Pla-Dalmau said possible lengths are limited only by transportation requirements. The future holds the promise of increased computerization for efficient operation and improved tolerances.

“Our goal is to build detectors for the next generation of particle experiments,” said Fermilab physicist Alan Bross.

Making those detectors for the future of particle physics will always depend on pairs of skilled hands. 🧤



Chuck Serritella and Anna Pla-Dalmau get a feel for scintillating plastic emerging from the extruder line.

Still Buddies After

All These Years



Fermilab photo

Ray Hren (right) and Jim Wendt, (left), shown here in 1979, drew ID numbers 80 and 81 when they were among the earliest hires at Fermilab in January, 1968.

Ray Hren
and
Jim Wendt
have been
teammates
at Proton Source
since 1968

by Sena Desai

Ray Hren and Jim Wendt were hired on a cold, snowy January day in 1968 when Fermilab (then the nascent National Accelerator Laboratory) was a muddy field.

Since then, they have watched that muddy field become the world's highest-energy physics laboratory, and have seen their friendship strengthen while working side by side in the Linac group every day for 35 years.

Hren and Wendt both received associate degrees in electrical engineering from Chicago's DeVry Institute. Both were in their early 20s when they joined Fermilab, among the first batch of technicians hired. They claimed ID numbers 80 and 81.

They met in an orientation class on their first day on the job, instantly hitting it off. They share an office, love their work, and are always willing to offer help. "Our values and our outlook on life are the same," says Hren.

Yet they count on the differences in their personalities and the contrasts in their skills and strengths. "We never compete with each other," says Wendt. "We have always recognized and used each other's abilities."

Wendt—tall, lanky, quiet, a keen gardener—is a stickler for detail.

"Wendt does everything so well, so perfectly. Even his garden is immaculate. Every weed is pulled out," says their supervisor, Elliott McCrory.

Hren—shorter than Wendt, more gregarious, a devoted fisherman—has a fantastic memory.

"He is on first-name basis with everyone in the laboratory," says McCrory. "When there is a problem, he knows exactly who can solve the problem and how."

Hren's memory is legendary among laboratory technicians. If a technician wants to know how a problem was solved 20 years ago, he goes to Hren, who pulls out the exact page in the precise file in the right cabinet.

Hren's resourceful memory and Wendt's attention to detail have combined on an array of challenges in their 35-year partnership.



Photo by Reidar Hahn

Hren (left) and Wendt (right) after 35 years. “We never compete with each other,” says Wendt. “We have always recognized and used each other’s abilities.”

Soon after joining Fermilab, they were shipped off to Brookhaven National Laboratory on Long Island, New York to build coils for the linear accelerator’s drift tubes. At Brookhaven, they spent their shifts building coils, and their spare time zipping around the countryside on Wendt’s motorcycle. Six months later, the coils were done and the two had motorcycled to their hearts’ content. They returned to Fermilab and assembled the linear accelerator in the old LINAC building, now the village machine shop. The accelerator was then a one-tank machine in a deep hole in the ground.

Later, the accelerator was moved to the current Linac building. While Wendt built the coils for the 300 drift tubes in the nine accelerator tanks, Hren worked on the pre-accelerator, the Cockcroft-Walton.

“They were both there with wrenches and calipers, helping build the accelerator,” says McCrory. The linac was completed on November 30, 1970 and went into successful operation; when the lab decided eight years later to switch the initial stage of proton production from positive to negative ions, Hren and Wendt worked on the conversion.

McCrory joined the LINAC group in 1986. In 1990 he began building trim magnets to steer the beam and beam diagnostics to sense its behavior. He drew on Hren’s and Wendt’s vast experience with the accelerator. Together, they assembled the wire scanners and trim magnets and built the beam diagnostics.

Hren and Wendt are now senior operations specialists. “They both have very good common-sense ability,” says applied physicist Chuck Schmidt, who has worked with them for 25 years. “They have a broad range of knowledge and experience. They are now working with a physicist on ideas to increase the beam’s intensity. Their work is that of a specialist.”

Hren’s and Wendt’s main job—the names are always linked—is maintaining the proton source accelerators, which they accomplish with their complementary styles. Every two months, Wendt meticulously cleans and reassembles the ion source, which transforms the hydrogen gas into a beam. Hren took on more paperwork over the years—safety reports, the accelerator’s operation reports, and ordering spares.

They claim they have never had an argument while sharing a small office in the LINAC building, and no one disputes them. “It is almost like they know what the other one is thinking,” says McCrory. “They are as easygoing as they come.”

Because they were cramped in their little office, sharing it with two other part-time employees and an assistant, McCrory decided to give Hren and Wendt two separate offices, side by side.

But Hren and Wendt were not happy. With a wall between them, talking would be hard. So they found a solution. There is now a big window, about three feet by three feet, cut into the wall separating their new offices. 🪟



"Blue Man Group" at CDF: from left, John Voirin, Wayne Shaddix, Harry Carter, Craig Olson, who rolled the detector into the collision hall at a speed of 10 feet per hour—live on web-cam.



Sharon Austin with the F disk for DZero at SiDet.



Matt Domeier and Steve Baginski at E sector of the Tevatron.



Central Fiber Tracker installation at DZero. Final placement of tracker into calorimeter.

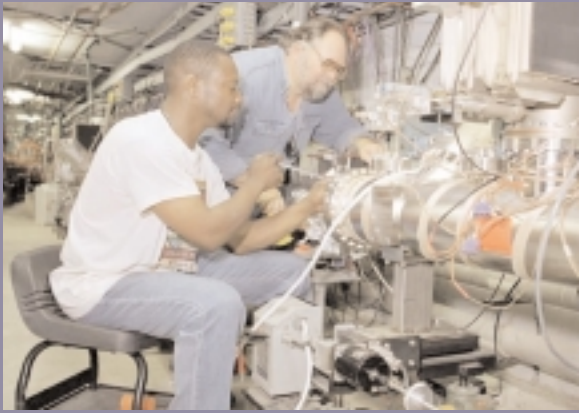


Fermilab technician specialist Bruce Lambin (left) and Jim Beaty, engineer from the University of Minnesota, work on the CDMS Icebox, half a mile underground in a mine in Soudan, Minnesota.

Many Hands Make



They've built the LHC magnets at the Industrial Building.



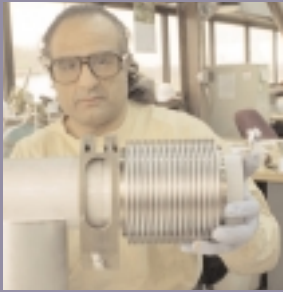
Cliff Foster (left) and Henry Gusler working on the cooling tanks of the Antiproton Source.



Rick Conant with Traceable Calibration T&M Equipment at Feynman Computing Center.



Paul Kesich checking groundwater levels



Chander Sood with Main Injector component.



Cassette fabrication and testing with Wanda Newby.



Central Fiber Tracker installation at DZero. Riggers attend to the device as it is moved by crane.

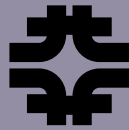


Hank O'Connor works on wire bonding at Computing Division.

Lab Work



Bill Barker inspects Ball Grid Array at Feynman Computing Center.



Installing cables in the CDF detector.



Fermilab technicians Carlos Gonzalez (from left), Jean Yarger, Wendell Jordan and Steve Bastian live in New Mexico and work on the telescope of the Sloan Digital Sky Survey collaboration.



Inside the CDF cable mover, atop the detector: (front row, from left) Dervin Allen, Jim Humbert, Tom Olsem, Chuck Pribyl, Wayne Shaddix; (back row, from left) Chris Richardson, Lew Morris, Mark Shoun, George Wyatt, Jim Hoover, Steve Sorenson, Manuel Seales, and Jamie Grado.



Craig LeRette wiring end plugs at CDF.



Andrew Foland and Bert Gonzales with the silicon barrel for CDF.



Steve Merker of Quality Control at Material Control Group.



John Cornele working on Muon Chambers for DZero.



Todd Johnson and Duane Plant examining repairs to Main Injector.

Many Hands...



Material Control Group at IB 4. Front row, left to right: John Zweibohmer, Rob Riley, Marsha Schmidt, Sudhir Ghanta, Steve Merker, Beth Karau, Doug Kelley, Gregg Kobliska. Second row, left to right: James Williams, Oscar Lira, Frank Juravic, Ted Beale, Cliff Besch, Gary Vezain, Paul Olderr, Mark Steinke. Not pictured: Linda Alsip and Leslie Peters.



Sabina Aponte (left) and physicist Fernanda Garcia prepare photomultiplier tubes for MiniBooNE.



Construction of MINOS near detector planes at Fermilab.



Alignment and Metrology Group (standing, from left): May Chau, Terry Sager (holding photos of John Kyle and John Greenwood), Elizabeth Brown, Mike O'Boyle, Tony Rodriguez, Bob Bernstein, Gary Coppola, Randy Wyatt, Jack Smith, Stu Lakanen, O'Sheg Oshinowo, Craig Bradford. Kneeling (from left): Ed Dijak, Ed Wojcik, Chuck Wilson. And up front: Cy.

FERMILAB ARTS SERIES SUMMER SEASON

To purchase tickets for Arts and Lecture Series events, or for further information or telephone reservations, call 630-840-ARTS weekdays between 9 a.m. and 4 p.m. Phone reservations are held for five working days, but will be released for sale if not paid for within that time. Will-Call tickets may be picked up, or available tickets purchased, at the lobby box office on the night of the performance beginning at 7 p.m. When coming to this event, only the Pine Street entrance to Fermilab will be open. For more information, check out our web page at www.fnal.gov/culture.

CORKY SIEGEL'S CHAMBER BLUES WITH BONNIE KOLOC

August 23, 2003; \$20 (\$10 ages 18 and under)

"Corky Siegel's Chamber Blues – Classical Music, elegant and precise, marries the loose and passionate blues in this utterly winning musical program." – *The Austin Chronicle*

For almost four decades the defining cultural arts critics from Rolling Stone, Stereophile, Down Beat, Billboard, Jazziz, New York Times, and Washington Post have all recognized Corky Siegel as a "phenomenal virtuoso on harmonica... a deftly

accomplished genius of the Blues" and a pioneer who brings his original award-winning benchmark compositions to delighted audiences globally. New fans and longtime followers of Corky's blues career have been quick to embrace his freshly innovative, genre-busting Chamber Blues.

Chicago singer/songwriter Bonnie Koloc joins Chamber Blues for a multi-media event titled "Bestiary" which features some of Bonnie's original artwork and songs. Koloc is often considered, along with John Prine and Steve Goodman, as one of Chicago's top three singer/songwriters.



MILESTONES

HOLE-IN-ONE

■ Congratulations goes to Dwight Featherston of the Phillips Park Thursday Night Golf League. On June 26 he shot a hole-in-one on the 2nd hole, a 128 yard par 3. This is the first hole-in-one in the short history of the Phillips Park Golf League.

RETIRING

■ Carol Diebold ID#03825N, TD-Computing & Information Systems effective July 16, 2003..

URA SCHOLARSHIP RECIPIENTS

Listed below are the recipients of the 2003 URA Scholarship Awards, with their intended school and field of study, and their FNAL parents.

Alex Ankenbrandt

Virginia Tech., Blacksburg, VA
Architecture or Engineering
Chuck Ankenbrandt, BD/Proton Source Dept.

Shreyas Bhat

University of Chicago, Chicago, IL
Physics
Chandrashekhara & Pushpalatha Bhat
BD/Main Injector Dept. and CD/DZero

Alexander Jeffrey Brandt

University of Illinois at Urbana/Champaign
(College of Engineering) Mechanical Engineering
Jeffrey S. Brandt, TD/Engineering & Fabrication

Benjamin Brian Chase

University of Illinois at Urbana/Champaign
Philosophy
Brian Chase, BD/RF Dept.

James Michael Grace

University of Norte Dame, South Bend, IN
Engineering /Pre-Medicine
Mary Logue, ES&H/Health & Safety Group

Allison Rebecca Kephart

University of Illinois at Urbana/Champaign
Biological Sciences with plans to attend law school or specialize in forensic biology
Robert & Karen Kephart, TD/Headquarters and PPD/Tech. Centers

Katherine Ann Mackenzie

Smith College, Northampton, MA
Undecided
Paul Mackenzie, PPD/Theoretical Physics

Martin Lowrey McCory

University of Illinois at Urbana/Champaign, IL
Music (Composition and Theory)
Elliott McCrory, BD/Proton Source

Beth Mendelsohn

Reed College, Portland, OR
Environmental Science
Michael Church & Sue Mendelsohn,
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Classics and Spanish
Peter & Karen Seifrid, BD/RF Group and
LS/Visual Media Services

Peter Strait

Columbia University, New York, NY
Film/Philosophy
James Strait, TD/Headquarters

LUNCH SERVED FROM
11:30 A.M. TO 1 P.M.

\$10/PERSON

DINNER SERVED AT 7 P.M.
\$23/PERSON

Chez Léon MENU

FOR RESERVATIONS, CALL X4512
CAKES FOR SPECIAL OCCASIONS
DIETARY RESTRICTIONS
CONTACT TITA, X3524

[HTTP://WWW.FNAL.GOV/FAW/EVENTS/MENUS.HTML](http://www.fnal.gov/faw/events/menus.html)

LUNCH WEDNESDAY, JULY 30

Grilled Pork Loin
Sweet Potato Salad with
Orange Maple Dressing
Vegetable of the Season
Orange juice Pound cake
with Strawberry Sauce

DINNER THURSDAY, JULY 31

Caponata
Saltimbocca
Lemon Risotto
Vegetable of the Season
Pear Almond Strudel

LUNCH WEDNESDAY, AUGUST 6

Seafood Salad
on Collard Greens Slaw
Plum Strudel Pie

DINNER THURSDAY, AUGUST 7

Grilled Calamari
Duck Breast with
Orange Sauce
Wild Rice with Pecans
Vegetable of the Season
Strawberry & Blueberry Napoleons

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CLASSIFIEDS

FOR SALE

■ '00, Hyundai Accent, 35K miles, 7 years or 65K miles bumper to bumper warranty, \$4,900. Contact Jean-Philippe or Ansermet@epfl.ch.

■ '99 Ford F350 V10, 4WD, XLT Package, Towing Package w/ electric brake control. 98K miles. Good Condition \$13,500 o.b.o. Contact Adam at (630)669-4310

■ '99 Toyota Solara. 55K miles, leather, moonroof, alloy wheels, alarm, remote starter, keyless entry, CD and cassette player. \$11,595 o.b.o. Contact Amy at 847-652-8329

■ '98 Chevy Cavalier coupe, 53K miles, auto., A/C, AM/FM CD, new brakes, green. Runs great, very clean. \$5,200 o.b.o. Contact Marc at 630-840-5192 or mkaducak@fnal.gov

■ '96 Saturn SL2 4 dr., gold, 120K miles, good condition, auto., AC, AM/FM/CD, PS, power doors, keyless entry, cruise, dual air bag. Delivery end of July. \$2,700 o.b.o. Contact Guennadi 630-840-3914 or bgv@fnal.gov.

■ '95 Honda Accord LX, 4-DR/AC, auto. Good cond. Very well maintained, 100K miles, \$5,200. Contact 630-393-1876.

■ '95 Olds 88 Royale, 75K miles, good condition, P/S,P/S, P/B, auto., AM/FM/cassette. \$4,000 o.b.o. Contact Dan at 708-488-9884 or email kaplan@fnal.gov.

■ '94 Mazda 323, 93K miles, automatic, AC, AM/FM, CD Player, power steering, runs very well, good condition. \$2,000 o.b.o. Contact Ricardo at 630-840-4812 or ragomes@fnal.gov

■ '92 Geo Metro. Automatic, 92K miles. Many new parts and runs great (40 plus MPG) \$500 o.b.o., Contact 630-840-2128, home 815-498-9594 or lasourd@fnal.gov.

■ '92 Plymouth Voyager mini van, 121K miles. Good condition and very dependable. KBB value is \$1,330, asking \$1,100 o.b.o. Contact 896-6196 evenings to see.

■ '92 Chrysler LeBaron, 4D, 131K miles, good condition, garage kept, AC power locks, power seat, AM/FM stereo, \$1,900. Contact Stephan Richter 630-499-1275.

■ '91 Chevy Lumina, 4D, 126K miles, good condition, garage kept, AC, power locks, AM/FM stereo, \$1,500. Contact Stephan Richter at 630-499-1275.

■ '91 Volkswagon Corrado G60 excellent condition. 72K miles, 1.8 Liter, ABS, 5-spd. Sport Auto., heated leather seats, A/C, P/W, P/M, AM/FM/cass, sunroof, \$7,000 o.b.o. Contact Steve Carrigan at 630-840-8879 or SCarrigan@fnal.gov.

■ '90 Nissan Maxima GXE, 128K miles, 4 dr, auto, a/c, ps, pb, pw, pdl, cruise; new items: timing belt, drive belts, water pump, exhaust and brakes, looks and drives very good, \$2,400 o.b.o. Contact 630-840-4740.

■ '88 Chevrolet Camaro, fresh red paint job w/ silver trim, T-tops, Rebuilt 5.7L 355ci. bored V8 & trans. w/ only 500 miles, 650cfm Holley carb., race suspension, roll bar, frame ties, racing seat & steering wheel, 5-pnt harness, Z-28 wheels, and MANY new parts. Very loud and ready to race. \$4,500. Contact Brandon at 630-964-3733.

■ Bike: 26" Female style, 10-speed Murray Montero all-terrain, pink and gray, good condition, \$40. Contact Ken 630-840-4225.

■ 47" Big Screen TV with stereo sound, Picture in picture, cable ready, asking \$600. Contact 896-6196 evenings to see.

■ Bedroom Set: Queen bed, dresser, chest \$400; couch \$300, Yamaha studio piano \$2,300 (like new), solid oak lighted china cabinet, redwood patio set, upright freezer, paintings, area rugs, floor lamps, pine desk, solid oak table and chairs, stereo with cabinet, drapes, porch swing, Huffy 24" girls' bike, 2 music stands, Tiffany-style ceiling lamp; Sony 19" TV \$35 no remote, all bargains. Contact 630-505-9442.

■ 1974 Monarch 14' aluminum deep V fishing boat and trailer with new tires. 20 hp. Mercury motor. 65 MX Minnkota trolling motor. Hummingbird depth/fish locator. 2 deep cycle batteries. Boat has live well, bilge pump, 3 cushioned swivel seats, oars, 3 life vests, and cover. Very good condition. Asking \$1,800. Contact Jerry 630-289-4764 after 5:00, or cell phone 630-330-6792.

■ Schwinn bicycle, men's style, 27" tires, 12 speed, good condition, ready to ride, \$25. Westinghouse window A/C, 9000 BTU, 230V, 7A. Older unit, aluminum case, works great except for thermostat. \$25. Contact Ken 630-840-2083 or sievert@fnal.gov.

■ Computer printers, \$30 each = Hewlett Packard 842c (w/manual), Hewlett Packard 812c (still looking for manual) and Epson Stylus Color 670 (w/CD and manual); 27" Sharp TV, \$40. Contact mclayton@fnal.gov.

■ Dog cage, suitable for large dog. 30W x 48D x 34H. Slide-out plastic tray on bottom. Folds flat for transport. Good condition, \$40. Contact 630-840-4279 or scotto@fnal.gov.

■ Bicycle tandem attachment for children (3rd wheel) attaches to bicycle seat post with quick release and converts bike to a tandem for children. Like new, burgundy. Includes 2 seat post clamps. Bike Nashbar brand. 2 years old. Can be removed in seconds, \$50. Contact Mark at 630-840-2253 or schmitz@fnal.gov.

■ Children's bicycle. Schwinn Tiger Bike. For ages 3-5. Comes with removable training wheels, black with orange tiger stripes. Excellent condition. \$35. Contact Mark at 630-840-2253 or schmitz@fnal.gov.

HOUSE FOR SALE

■ 8 room, 4-BR, 2.5-Bath +BR, FR & Office in basement. N. Aurora, 10 min. to Lab. Quiet neighborhood. Contact Larry 630-840-4386 or alarcanoe@aol.com.

FOR RENT:

■ Mini apartment in residential home in Naperville. One big bed room, quiet living area, independent bath in independent floor; kitchen area, laundry available; one car garage, storage; all new utilities. 20 minutes from Fermilab, 5 minutes from downtown Naperville, 40 minutes from Chicago. Possible car for rent too, available immediately, \$595/month. Contact silvia@fnal.gov.

■ Naperville, 2 bdrm, 1 bath, duplex, front and backyard, off street parking, in town location, no pets \$1,000 per month. Contact 630-983-9253.

■ 1-BR condo on a lake with sunset view, Four Lakes resort community on Maple Ave. in Lisle, 30 min. from lab. Available fully or partially furnished. Outdoor pools, tennis courts, golf course and more. Any lease term considered. Rent: \$775/month, a bargain for someone who will take proper care of my place. Contact Marlene at 630-863-5745.

■ Batavia, 4 bedroom, 3 bathroom with large heavily wooded yard (3/4 acre) close to bike trail, Fox River and Fermi. Recently rehabbed with new kitchen, baths, hardwood floors and carpeting. Home office/den. Contact 630-406-9173 and ask for Patty or George.

■ 3-story English-style home in River Forest; great condition, 4+ BR, 4 bath, gourmet kitchen, walkout deck and large yard, furnished, C/A, lots of closets, in-ground sprinkler system, grand piano. Walking distance to outstanding schools. Convenient to both airports, Metra train and Pace bus; low-stress commute to Fermilab on Metra. Available for 1 year beginning mid-August 2003. \$3,950/month (includes weekly cleaning) plus utilities. Contact 708-488-9884 or kaplan@fnal.gov.

■ 2-bdr. furnished home in Batavia, ideal for student or couple. \$1,100/month + deposit. Available immediately. Contact Helen 554-9711.

■ Large 2 bdrm apartment with eat in kitchen, full basement, minutes from Lab, quiet residential neighborhood in North Aurora. New appliances and central air with hook-up for washer/dryer and private parking. Grade school and parks nearby. No dogs. Lease and security deposit required. \$880/month. Contact 630-876-1480.

WANTED

■ Good vintage word processor (Brother, Canon, etc.) in working condition, with printer, that you would be willing to donate to a high school student from Afghanistan for the coming school year. If you or someone you know has one, please contact Ron Cudzewicz at 630-840-4075 or cudzewicz@fnal.gov.

ANNUAL BLOOD DRIVE

■ Fermilab's annual blood drive will be held on August 4 & 5, 2003 from 8 a.m. to 3 p.m. at Wilson Hall, Ground Floor NE Training Room. Appointments can be scheduled on the web at: <http://www-esh.fnal.gov> or by calling Lori at 630-840-6615.

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