

FermiNews

The Newsletter of the Fermi National Accelerator Laboratory

ACCELERATOR FORECAST

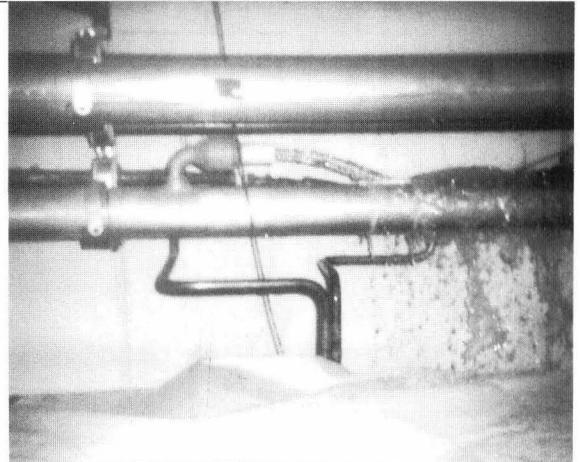
NO MORE SCATTERED SHOWERS

It couldn't have happened at a better time. On Tuesday, May 23, Accelerator Division Associate Head RICH ANDREWS gave a talk to scientists and Department of Energy officials assembled for the 1995 Annual Fermilab Program Review. Stressing the need for an aggressive Main Injector construction schedule, Rich pointed to the lengthening list of repairs required to maintain the performance of an aging Main Ring. He singled out the low conductivity water system as a particularly vulnerable point, liable to break at the brazed joints between ceramic insulators and copper plumbing, soaking the Main Ring magnets below and usually requiring replacement of the drenched magnets.

That evening, it happened. A ceramic insulator separated from the copper pipe, water sprayed out, soaked a Main Ring magnet, and shut down the particle beam. The Accelerator Operations crew photographed the event for their log book. (See accompanying photo.) Next day, Rich exhibited the photo at

the Annual Review. "See what I mean?" he said. They did.

During the summer shutdown, a team of five Accelerator Division staff members and Fermilab co-op students under the direction of JOHN SATTI, head of the Mechanical Support Department's Water Group, are making sure the showers won't return when accelerator operations resume next September. The 23-year-old LCW system provides cooling water to the Main Ring accelerator. The plumbing system holds together by ceramic insulators brazed to copper piping. The Main Ring originally contained a total of 1,352 ceramic copper brazed joints, each one a possible show-stopping shower head for the accelerator. Over years of exposure to low conductivity water, the brazing in the joint leaches away, until the two pieces are often held together by only the merest fraction of an inch of remaining brazing.



From the log book: a ceramic insulator breaks loose, soaking a Main Ring magnet.

Using specially configured ultrasonic flaw detectors, the Water Group team members are examining each brazed

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FermiNews is Online

The current edition of *FermiNews* and some back issues are available online in text-only format on Fermilab's World Wide Web site. Fermilab's World Wide Web home page is at <http://www.fnal.gov>

To see *FermiNews*, follow the links to "Fermilab at Work," "Information Resources" and "Fermilab Publications Office."

Employees needing assistance in installing and configuring network software or hardware should contact their network administrator.

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Friday, September 1, 1995 • Volume 18, Number 15

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BUDGET DEADLOCK COULD AFFECT LAB

As October 1, the start of Fiscal Year 1996, approaches, federal agencies have begun to prepare for the possibility that a budget deadlock between the Administration and Congress might lead to a temporary shutdown of government operations.

As of August 28, both Houses of Congress have passed the Energy and Water Development Appropriations bill, and a conference to resolve the differences between the House and Senate versions of the bill has been scheduled for September 19. Once enacted, this bill will provide the funds for Fiscal Year 1996 for the Department of Energy. But before it can be enacted, the final version of the bill must be passed by both Houses, sent to the president for signature, and then signed by the president.

It is possible that Congress may not send the Energy and Water Appropriations bill to the president before October 1. There has been considerable discussion in the media of the possibility of a presidential veto of

some of the 13 appropriations bills. If the Energy and Water Development Appropriations Bill is not enacted into law by October 1, then the Department of Energy might have to shut down all but essential functions until Congress and the president enact an appropriations bill.

As a Department of Energy laboratory, Fermilab could also be forced to shutdown temporarily. For how long? An August 24 *New York Times* article quotes a memo from Budget Director Alice Rivlin, directing federal agencies to prepare for "a possible appropriations hiatus" of unnamed length. While the longest previous federal shutdown lasted only three days, some Administration officials have speculated that the coming budget conflict might close at least parts of the government for as long as several weeks. When a similar deadlock occurred in 1990, some parts of the government did shut down. Fermilab was able to stay open in 1990 by severely restricting operations and using unexpended funds from the previous fiscal year.

Negotiations between the Congress and the president in the next month may avert any government shutdown. If an appropriations bill is not enacted, temporary legislation known as a "continuing resolution" could allow operations to continue until Congress and the president reach agreement.

If a shutdown occurs, it might not affect all areas of government. However, all Fermilab employees should be aware that if Fermilab is forced to shut down operations because the Department of Energy cannot legally fund our work, Laboratory employees cannot be paid for the period they do not work, unless they take that time as vacation. If the Department of Energy allows Fermilab to use unexpended funds from FY1995 as it did in 1990, the Laboratory will cut back its operations to the minimum in order to stay open.

"We certainly hope that the differences between the president and Congress can be resolved before there is a budget train wreck," said Director JOHN PEOPLES. ■

URA SCHOLARSHIPS REQUIRE SAT TEST

Candidates for Universities Research Association (URA) scholarships are reminded that the scholarships are awarded on the basis of SAT (Scholastic Aptitude Test) scores. High school seniors wishing to apply for the scholarship should sign up for a fall testing date if they have not already taken the test.

URA awards a number of scholarships to regular, full-time employees' children who are currently high school seniors and who will begin a four-year college degree program next fall. The maximum amount of the scholarship is \$3,000 for tuition and fees and is renewable for four years if the student progresses in good academic standing.

Applications will be available after the first of the year and are due March 1, 1996.



PRAIRIE AT HEIGHT OF BEAUTY

Late summer is the time that prairies put on their royal colors: golds and vibrant violets. Flowers are tall and showy, and the daisy-like asters have their day.

Purple coneflower (*Echinacea purpurea*) seeds ripen on bristly heads surrounded by swept-back petals. This plant's popularity as an immune system enhancer, known by Native Americans, has been rediscovered recently. Another coneflower, somewhat less showy, has yellow petals and delicate, many-forked leaves. Its name vibrates between tongue and palate: *Ratibida*.

Silphiums, the tallest and among the latest flowering, tower above the cone-flowers on stalks up to ten feet high. Among them are compass plants



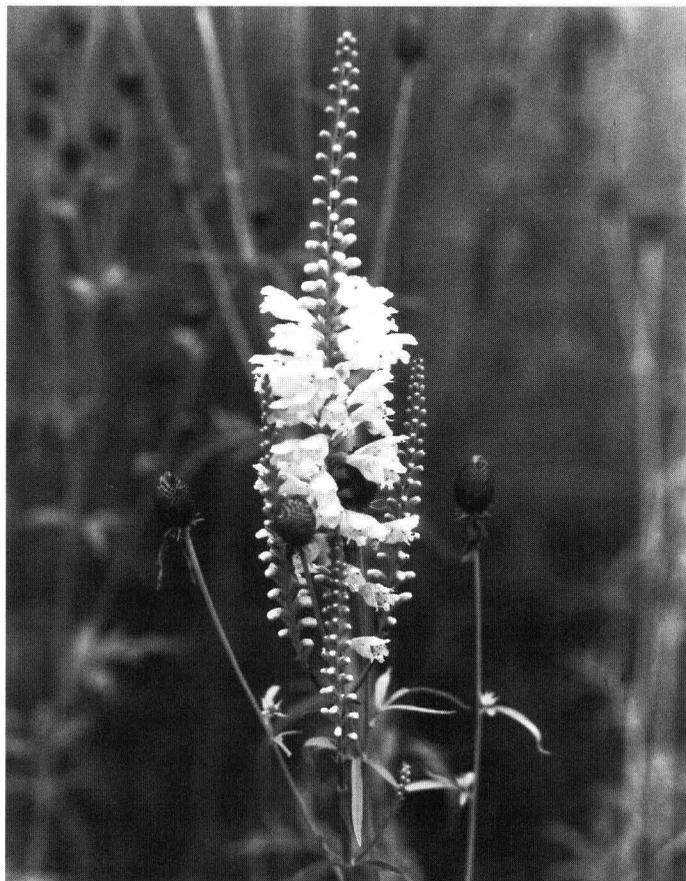
Black-eyed Susan

(*S. laciniatum*), stiff navigators whose basal leaves uncannily orient north to south, and prairie dock (*S. terebinthinaceum*), with enormous paddle-like leaves that dwarf its yellow flowers. Two other Silphiums are somewhat less dramatic: rosinweed (*S. integrifolium*), and cupplant (*S. perfoliatum*) whose leaves form a clasping embrace around the stem.

Clumps of New England aster (*Aster novae-angliae*), which belong here despite their name, add hues of violet, rose and magenta to the landscape. Each flower may have up to

60 rays, or petals. In contrast to that abandon, *Coreopsis* wave in the wind with flowers that almost always have only eight petals, and three to four notches per ray. Goldenrods (*Solidago*), whose clusters of tiny flowers are often club-like, sometimes flat-topped, add even more yellow. And majestic sunflowers (*Helianthus*), and other sunflower-like plants, the "Susans" (*Rudbeckia*) add colors and grace to the landscape.

Ecological flexibility allows many prairie plants to thrive under conditions of too much heat, or too little, too much water, or not enough. Thankfully, this is the case in 1995, which may break all records for the hottest summer. The colors and aspects of a prairie are constantly changing, but this time of year is surely one worth viewing. —*Linda Kinkel*



Obedient Plant

FERMI FEST '95—A SUMMER CELEBRATION

Hundreds of Fermilab employees and their families gathered for fun and food at the 1995 Fermi Fest, August 11, 1995. Picnic goers were treated to a wide variety of food, music by Deluxury, the traditional folk dancing exhibition and dunk tank fun, plus several new activities, including a hay ride and miniature golf.

The Nalrec Board extends a big thanks to everyone involved in the setup of Fermi Fest '95. "We realize what it takes to make an event of this magnitude work and we appreciate the extra effort each person gave in support of this event," said Nalrec president Nancy Bartlett. "We would also like to thank the Nalrec members who participated in the event. As a volunteer organization, Nalrec members should also be commended for their efforts." Nalrec invites all employees, retirees, users and contractors to all events.





People & Events

55 RIDE BIKES TO WORK

Fifty-five people registered for the Fermilab Bike to Work Day held June 23. Some of the registrants were deterred from riding due to the extremely hot, humid, overcast weather. Despite the weather, however, two-thirds of the participants, including 10 novice bikers, rode to work. For their efforts, participants received a bike water bottle,

a yogurt/fruit coupon and a certificate of award. DANA WALBRIDGE (TS) traveled the farthest distance to work. She rode 40 miles to get to work—and it was her first time. The Bike to Work Day was sponsored by the Wellness Works Committee and implemented by the Recreation Office.

SEMINAR TO DISCUSS ADD

The Wellness Committee will hold a Brown Bag Seminar on Attention Deficit Disorders in Adults September 13 from noon until 1 p.m. in the Wilson Hall 1 West Conference Room. Dr. Charles Berthold Ph.D., a clinical psychologist from Dreyer Medical Clinic, will speak. ADD is a neurologically based, chronic developmental disorder

that can affect one's ability to concentrate and ultimately interfere with normal daily activities. Although there is no cure, patients diagnosed with ADD can be treated with behavior modification, medication or a combination. Dr. Berthold will discuss these treatments as well as some of the most common characteristics associated with ADD.

Congratulations!

To Sheryl and RICHARD GRAFF (ES&H) on the birth of their son Benjamin Jacob Graff. Benjamin was born August 14, 1995 at 9:58 a.m. at Delnor Community Hospital in Geneva. He weighed eight pounds, 14 ounces and was 20 inches long. He is welcomed home by big sister Katie.

To Sara and ELVIN HARMS (AD) on the birth of their son Nathaniel Paul Harms. Nathaniel was born August 9, 1995 at 9:27 p.m. at Delnor Community Hospital in Geneva. He weighed seven pounds, three ounces and was 19.5 inches long. He is welcomed home by big brother Samuel.



Lui Collins

ARTS SERIES PRESENTS

FOLK SHOWCASE

Liz Carroll, Irish fiddle with Larry Nugent, flute & Jim Dewan, guitar
Lui Collins, singer/songwriter, David Massengill, singer/songwriter;
Saturday, September 23, 1995, \$12

Liz Carroll returns by popular demand after last year's guest appearance with *Altan*. A Chicago native, Liz has been playing fiddle since she was nine years old, winning the All-Ireland Fiddle Championships at ages 17 and 18. Appearances include the National Folk Fest at Wolf Trap and a guest performance at Yehudi Menuhin's First Violin Conference in 1988. She will perform with Larry Nugent, flute and Jim Dewan, guitar.

Dubbed "Folksinger For Our Times" by the *Boston Herald*, Lui Collins brings a unique grace and presence to the stage that stem from her love for music, her rich and full family and community life, and her broad performance experience (from classical orchestras to marching bands to bagpipe bands). Her warm, direct and powerful sound has been declared "inspirational" by fellow musicians. She has released albums on *Philo*, *Green Linnet*, and now her own independent label, *Molly*

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ARTS SERIES

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Gamblin Music. Her most recent album, *North of Mars*, is for children.

“David Massengill is a respected cult figure whose songs are serious and idiosyncratic and whose writing is ambitiously allegorical.”—*New York Times*. Born in Tennessee, Massengill has long been a leading light of the New York folk scene. He has appeared regularly at *Folk City*. Performances include the Newport Folk Festival, Carnegie Hall and Kennedy Center.

Admission to the Folk Showcase is \$12. For reservations, call xARTS. Please note, in spite of the recent vehicle access change, Arts Series patrons will be able to enter at either Pine Street or Batavia Road.

SEMINAR FOR THE HEALTH CONSCIOUS

The Wellness Works Committee will present a seminar on how to be a wise health consumer on September 6 in the 1 West Conference Room from noon to 1 p.m. Liz Gomorzak from HMO Illinois will speak on the topics: “you and your doctor,” “medical exams” and “tests, medication and health resources.”

Harper's Index

Number of patients referred to Norway's new hypochondria clinic since it opened in March: **23**

Number of years Jeanne Louise Calment, France's oldest woman, smoked cigarettes before she quit in 1993: **98**

MOVIE SCHEDULE

The Fermilab International Film Society presents movies from all over the world. Movies are shown at 8 p.m. Fridays in Ramsey Auditorium. All foreign films have English subtitles. Admission is \$4 for adults. Call x8000 for more information.

■ September 8, *The Blue Kite*

The life of one Chinese family through 14 years of political upheaval is chronicled in this story of how a child and his mother survive through the

turbulence of China through the 1950s and 60s. Zhuangzhuang Tian, director, China, 1993, 139 minutes.

■ September 22, *This is Spinal Tap*
A rockumentary about the world's loudest heavy metal band, Spinal Tap. This satire spoofs the whole rock and roll scene, including hilarious behind-the-scenes footage which bring life to the imaginary group. Rob Reiner, director, U.S. 1984, 104 minutes.

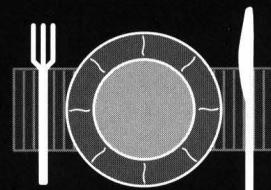
REMEMBER THE '70s . . . ?

Dust off your bell bottoms, grab your platform shoes and get ready to “disco” at the Nalrec 70s celebration, September 15, 1995 at the Kuhn Barn. The festivities will run from 5:15 p.m. until 9:15 p.m. Chicken and Italian sausage

will be served. Don't miss this chance to relive your youth, remember how bad the clothes used to be and dance to a disco beat. Music will be provided by Wizards of the Mike DJ's.

Chez Léon Menu

Lunch (Wed) \$8.00 • Dinner (Thurs) \$20.00
Reservations: x4512



Wednesday, September 6 • *Duck and pear salad with mango chutney dressing, blueberry tart*

Thursday, September 7 • *Marinated mussels, veal scallops with prosciutto and fontina, vegetable of the season, peach Melba shortcakes*

Wednesday, September 13 • *Dominican beef with onions, tomatoes and bell peppers; new potatoes with peas and mint; coconut flan*

Thursday, September 14 • *Black bean soup, pork tenderloin with chipotle salsa, vegetable of the season, chocolate hazelnut cake*

BENEFITS NOTES

HEALTH PLAN OPEN ENROLLMENT

How does the medical plan pay for prescriptions? Who have you added to your network of physicians? Now is your chance to ask questions of the PPO and HMO representatives from the various health plans offered at Fermilab. Representatives from CIGNAPPO and the HMOs will be in the Atrium of Wilson Hall on Monday, September 11 from noon to 5 p.m. and Tuesday, September 12 from 8 a.m. to 1 p.m. to answer any questions that employees may have and to distribute updated information.

Don't forget, at this time of year, you have the opportunity to transfer your medical and dental coverage. During the open enrollment period, September 11, 1995, through September 22, 1995, active employees can elect to transfer their medical and dental coverage. Detailed information regarding the open enrollment period, plan changes, plan comparisons and cost was mailed to employee's mail stops. If you did not receive this information, please call the Benefits Office at x3395 or stop by WH15SW to get your packet of information.

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CLASSIFIEDS

■ VEHICLES

1971 Suzuki 50cc off-road motorcycle, needs repair, \$100 o.b.o. Call Ron at x4663 days or 708-466-1823 evenings.

■ MISCELLANEOUS

2 tan love seats, good condition, \$50 ea.; Sunbeam gas grill, \$45. Call Gary at 708-466-7155.

Goldstar VCR, 18 months old, \$80.

Call Mary at x8091.

Pentium 90 MHz computer, 800 MB HD, CD-ROM, 3.5 floppy, 16 MB RAM, ATI MACH 64 graphics, 17" color monitor, Epson ink jet printer, modem & soundblaster. Software includes Windows NT 3.5, Visual CH 2.0, 3D Studio, more.... 6 months old, used as Unix workstation, \$3,000. Call Timothy at x3916 or 312-808-6624.

ACCELERATOR FORECAST

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joint. The ultrasonic probes, developed with the help of a consultant, allow the team to examine the joints without taking them apart, rather like using a noninvasive medical diagnostic technique, such as ultrasound, instead of surgery. The team replaces the hundreds of faulty joints they find with

rubber and thermoplastic hoses.

"Until we examined them, we couldn't be sure how many bad joints we would find," John said. "This is the kind of job that gives you some uncertainty about just how busy you're going to be during the shutdown." ■

THANK YOU

We wish to thank all of you at Fermilab for your cards, kind thoughts and prayers at our time of loss. Our son and brother Brian made a positive impact

on our lives as a family. We will miss him and remember him always.—*The Adamo Family: Dick, Betsy, John and Michael*



The deadline for the
Fri., September 15, 1995
issue is Wed., Sept. 6.
Please send your article
submissions or ideas to
the Publications Office.