



## Fermilab's Fire Department Welcomes its "New Arrival"

Help is still just a phone call away, but no longer is the familiar sight of the bright yellow Fermilab fire engine. The 1975 Seagrave Engine, which has been a part of the Fire Department's two engine fleet almost as long as the Department has been in existence, has been replaced by a new 1989 Emergency One Fire Engine.

"The first thing Lab employees will notice about the new engine is that it isn't yellow," said Deputy Fire Chief Ron Grosklaus. But there are other differences as well. The new engine meets all the National Fire Protection Associations (NFPA) "1500" Safety Criteria, which has been adopted by the Department of Energy. Included in this criteria is the regulation that all fire engine cabs must be fully enclosed, a feature evident on the new Fermilab engine. Also cited in the new safety regulations is that fire fighters can no longer ride on the back step when travelling to emergency areas.

The Fermilab Fire Department has been in existence for almost twenty years and the Emergency One is only the third engine to be purchased. The Laboratory still owns a 1970 Darley, which has been used primarily as an auxiliary engine.

The twenty-one member department, headed by Chief Fred Cload, operates three shifts to provide 24-hour-a-day protection for the Laboratory and its employees. "We answer approximately 350-400 emergency calls a year," said Deputy Chief Grosklaus. "Over the years, these calls have ranged from false alarms caused by cooking smoke to large building fires in the experimental areas." Most of the calls answered by the Fire Department, however, are for assistance with stuck elevators, power supply fires and small grass fires, which are referred to by the Department as nuisance fires.

Large or small, the Fermilab Fire Department is equipped and well-trained to cover whatever emergency should arise. Aside from the equipment and staff on the site, the Lab Fire Department also has a mutual aid agreement with the fire departments in all the surrounding communities. "This is an agreement for both equipment and personnel if an emergency would necessitate calling in help," stated

Grosklaus. Although not frequent, it is not unusual for Fermilab Fire Fighters to be called to assist neighboring communities when an emergency occurs. These emergencies, both on and off site, can now be handled by a Fermilab Fire Department better equipped than ever before.

*Fermilab's Fire Department personnel were like proud parents inspecting the new engine when it arrived on July 2, and they didn't mind sharing the vital statistics of the "new arrival" which weighed in at a whopping 37,020 pounds and is 35 feet long and 10 feet wide.*



*Pictured above are (l. to R.) Deputy Fire Chief Ron Grosklaus, Captain Jim Wolsfelt, Lt. George Reichhardt and Lt. Bill Beckley.*

**The Art Series Presents:**  
**Toshiko Akiyoshi and Lew Tabackin Jazz Quartet**  
**Saturday, August 11, 1990 at 8:00 p.m. in Fermilab's Ramsey Auditorium. Admission to this evening of jazz is \$10.**

**"One of the most distinctive jazz sensibilities extant." Rolling Stone**

Dear Fermilab Friends,

The loss of a wife and mother, at a young age, is a difficult situation for a family to face. Your friendship and compassion have helped us immensely during this time. My family and I would like to thank you, from the bottom of our hearts, for all of your flowers, contributions, memorial masses, cards, thoughts and efforts.

With deepest thanks,

Jeff, Jodi and Doug Gannon

### ***From the Front Desk***

#### **Reflections...**

Summer at the front desk is wonderful. The rich, green foliage of the trees reflected in the pools and ponds is beautiful. Lovers of nature dot the landscape by walking the paths, riding their bikes or just sitting on the front porch soaking up the sun. The waterfowl seem to hide during the day choosing to come out when the evening cool sets in. The various national flags along with our own national flag blow gently in the wind. This scene is especially beautiful on warm, sunny days.

The warm sunny days also bring many guests and visitors to our facility. Summer students come and go. It is interesting to see how they mature as each summer passes. Summer also brings educators of all grade levels, who come to partake of the programs offered to them through the Education Office. Summertime also brings many tour groups, families with their young in tow, bikers in for a respite from the sun and heat, senior citizens on an outing and passers-by who happen to see this unusual structure from the road and come in to see what is here.

Before summer passes quickly by, take time to see and feel the beauty around you. See the water glimmer in the sun, the flags blow in the breeze and people ambling along and talking. It is all free, yours for the taking. Enjoy it while it is here!

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*Connie Kania*

### ***Trudy's Corner NALREC News***

For our next project, we are promoting another "Taste". We have had "Taste of St. Charles," "Taste of Geneva" and "Taste of Chicago." Now we are ready to do another "Taste of Fermi."

Last year was a great party, enjoyed by both young and old. We intend to do it even bigger and better this year. The "Taste of Fermi" will be held on Friday, August 17 from 4:30 to 10:00 p.m. "Burgundy Road" has been hired for "Closed Particle Dancing." "P-Bar Hot Dogs," "Big Bang Hot Dogs," "Top Quark Nachos & Cheese," "Booster Brats," "Tevatron Tacos," "URA Beef," "Lepton Wing Dings," "Photon Brownies" and other surprises including a special drink of the day will be served.

The pool will be open and anyone who cares to can arrange either a volleyball or softball/baseball game. Tournaments will not be conducted this year. Other entertainment featured will be the famous Dunk Tank and ADULT GAMES. We've also planned games, pony rides, a moon walk and a Ferris wheel for the children. There will be prizes for the games as well as door prizes. Please plan your schedule around this special summer event.

#### **Upcoming NalRec Events:**

- September Social - September 14th - John Satti, Chair
- 50's/60's Party - October 12th - Mike Urso, Chair
- Children's Halloween - October 27th - Sherry Thill, Chair
- Turkey Party - November 16th - Dominick Carullo, Chair
- Children's Christmas Party - December 9th - John Satti, Chair
- Formal Christmas Dance - December 15th - Trudy Kramer, Chair
- Employee Christmas Party - December 21st - Nalrec Board, Chairs

We hope you include these parties on your social calendar.

Remember to take advantage of the various ticket bargains and the terrific T-shirt sales at the front desk in the Atrium.

**MAKE TODAY A GREAT DAY!—Trudy Kramer**

## Lecture Series

### Smithsonian: From the Inside Looking Out Edwards Park Friday, August 17, 1990 at 8:00 p.m.

"...for the increase and diffusion of knowledge among men," seemingly the rhetoric of some time-honored political document, is the enlightened wish accompanying a sizeable bequest to the United States of America in 1835 from the deceased expatriate Englishman turned Italian, James Smithson! John Quincy Adams battled Congress to champion the ideals of Smithson's wishes. Out of his struggles emerged the Smithsonian Institution, presently incorporating some thirteen museums in Washington, D.C. and extending to research facilities throughout our country. Like our nation's colorful history, the lore, anecdotes and Herculean efforts concerning the establishment and continuing collection efforts of the Smithsonian Institution could fill a book. No one knows this better than Edwards Park, a founding editor of *Smithsonian* magazine and author of the book *Treasures of the Smithsonian*. Edwards Park brings the Smithsonian to life, visually and orally, literally and figuratively, in his talk *Smithsonian: From the Inside Looking Out*, on Friday, August 17 at 8:00 p.m. in Fermilab's Ramsey Auditorium.

Moving easily from the painful birth of the Smithsonian and the great buildings that now house this national collection, to the treasures themselves and the field work going on at the Smithsonian's affiliated research center, Mr. Park evokes a veritable social history of the United States. If the Smithsonian considers its mission to educate the public with its research and collection, and to encourage public enjoyment of this process, then Mr. Park is one of the Smithsonian's finest ambassadors. Currently writer of the column "Around the Mall and Beyond" in *Smithsonian* magazine, Mr. Park was also on the editorial staff of *National Geographic* magazine for many years. He currently lives in the Historic District of Annapolis, Maryland and devotes his time to writing books.

*The Smithsonian Mace, pictured on upper right, symbolizes the Institution. It is carried on academic and formal occasions by the Smithsonian's chief executive, the Secretary. The Sunburst crown signifies the power of knowledge. The heraldic lion rises out of a pool of Smithsonite, a semi-precious mineral discovered by and named for James Smithson.*



Photo above from: *Treasures of the Smithsonian* by Edwards Park

## In the Library

### QSPIRES:

Access via Bitnet to several of the SLAC/SPIRES High-Energy Physics databases provides references to preprints and published articles in journals and conference proceedings. References can be searched by authors, author affiliation, title words, topic words and report numbers. Searches may also be qualified by dates. In addition, citation searches find papers citing particular articles.

In QSPIRES, HEP is the default database. Other available databases include BOOKS, CONF(Conferences), EXPERIMENTS, etc. To receive further instructions or information about QSPIRES searches on your FNAL Vax account, send your request via E-Mail to: FNAL::LIBRARY.

### HEPNAMES:

A publicly available database containing a large number of electronic mail addresses (>15,000) of people related to high-energy physics. No set-up of your FNAL or other Bitnet account is required. To find the E-Mail address of John Doe, type in the following command: SEND QSPIRES@SLACVM QUERY DOE, J. (or Q DOE, J. or QUERY JOHN DOE or Q DOE, JOHN). QSPIRES sends the response to your screen. To contribute E-Mail information, please contact: HEPNAMES@SLACVM.

### BITNET

### INSTITUTIONS:

A database of 3,000+ addresses, phone and fax numbers, etc. of HEP and other related organizations from which documents or preprints have been received. INSTITUTIONS can also be searched via Bitnet: SEND QSPIRES@SLACVM WHEREIS KEK or SEND QSPIRES@SLACVM WHEREIS BATAVIA. The response is sent to your screen as with HEPNAMES.—Paula Garrett *FermiNews* page 3

## A Message from the Safety Section

### WARM WEATHER CONCERNS

During the summer, many people take advantage of the seasonal warmth to catch up on long overdue home repairs and to enjoy a variety of recreational activities. This increased outdoor activity necessitates an awareness and adherence to good safety habits to insure a healthy and accident free summer season.

The following is a list of common summer safety issues and information on how to avoid catastrophe:

**Ticks-** The season for contracting Lyme disease (named after first case diagnosed in Old Lyme, Connecticut) is usually between June through September. Tall grass and low bushes in wooded areas are where the pin-sized, white tail deer tick hide. This bacterial disease can be transmitted both from humans to animals and from animals to humans. Early detection and treatment will prevent progression to more serious stages.

**1st Stage:** A circular rash appears at the bite area. Flu-like symptoms; fever, chills, headache, fatigue and muscle pain, appear within 30 days of tick bite.

**2nd Stage:** Severe headache, facial paralysis, dizziness, shortness of breath or an irregular heartbeat may be present. These symptoms are not always visible.

**3rd Stage:** Onset of arthritis in large joints. Approximately 60% experience knee and large joint

pain. Damage to joints may be irreversible if detected in this stage. This occurs several months, but not greater than 2 years, after the tick bite.

#### **Prevention:**

Light-colored or white long sleeved shirt/pants should be worn when in wooded areas between June - September. Pants should be tucked into long socks. This will make it easier to spot ticks.

Use insect repellants containing DEET (<50% DEET for adults/<20% DEET for children). Spray on clothes and exposed skin. Repellants may cause a dermatitis skin reaction so use sparingly during initial use.

Upon returning form wooded areas, check clothing and body for ticks.

Immediately remove ticks that are embedded using tweezers. Grasp the tick as close to the skin as possible and pull gently, firmly and straight out. Treat tick bites with alcohol or an antiseptic. Ticks may be preserved in a vial of alcohol for later identification if Lyme disease symptoms appear.

#### **Caution:**

Pregnant women should take extra precautions. Lyme disease can be transmitted to the fetus resulting in miscarriage or birth defects.

**Poison Ivy/Oak/Sumac** -Dermatitis can result from contact with any part of the plant, smoke from

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### Classified Ads

**Moving Sale:** Schwinn LeTour 10-speed Bicycle, \$125. Schwinn Bicycle Exerciser, \$75. Kenmore Dehumidifier, \$75. Coffee Table and End Tables, \$75/set. 2 Mediterranean-Style Lamps, \$85. Study Desk, \$25. Kerosene Garage Heater, \$65. Wooden Bookshelves, hand-crafted, free-standing, \$450. Inversion Exerciser for bad backs, \$45. All items in good to like new condition. Call Larry at x3377 or 4666.

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**1985 Lynbrook Park Model Trailer,** 35 ft. long with full tip out, AC, furnace, kitchen, bath, bedroom, livingroom, sleeps 6, like new, \$10,000. Call Sandy at x4171.

**Executive Walnut Desk,** \$165. Credenza, matches the desk, both ex cond, \$140. **Two Office Waiting Chairs,** walnut frame, black upholstery, like new. @\$45. **Computer Table,** like new, \$80. Phone x3987 or 708-859-0061 evenings.

## A Message from the Safety Section

*Continued from page 4*

the plant or contact with clothing or other objects previously exposed to the plant.

Symptoms of itching can be alleviated with the use of Benadryl spray/cream/ointment or an oat meal bath.

**Heat Stress** - heat stress may be any of three conditions:

Heat cramps - result from high temperatures which result in fluid and salt losses in the body. These cramps may be alleviated by relaxing the affected muscles, increasing the fluid intake and cooling the body down.

Heat exhaustion - results from physical exertion in a hot environment. Signs include: mildly increasing temperature, pallor, weak pulse, dizziness, profuse sweating and cool, moist skin. A person experiencing these symptoms should move to a cooler environment and increase fluid intake.

**Heat Stroke**- This is a life threatening medical emergency. This occurs when the body is unable to cool itself sufficiently. Rapid increase in body core temperature and hot dry skin (no sweating) are the symptoms of heat stroke. If cooling of the body does not occur and the body core temperature continues to rise, death may occur. Immediate, but not rapid, cooling of the body is needed, even before transporting to a hospital. This is crucial because approxi-

mately 60% of patients brought to the hospital with heat stroke die, if prior attempts at cooling have not been made.

**Automobile Safety** - Extra care when driving is especially necessary at this time of the year when children are playing outdoors. Extreme caution should be taken when driving at dusk in areas where children may suddenly enter the street. Parked cars are especially dangerous. Enough driving time should be allowed for slower driving conditions.

**Ladder Safety** - over 100,000 Americans are injured due to ladder accidents. Ladders have three basic rules of thumb:

- 1) for every three feet high, the base of the ladder should be one foot away from the structure.
- 2) the upper portion of the ladder should exceed the structure (ie. roof eaves) by 3 feet. This will aid in safely stepping on to the roof top.
- 3) remember not to "step back" to admire your work. Many people are injured doing exactly this from as little as one foot up. — *Ken Weber, DO/Safety*

### CHAMBER MUSIC SERIES

The Fermilab Arts Series announces its sixth annual Chamber Music Series to the Accompaniment of sensuous strings, scintillating sexophones and wonderful winds! Please join us for three special evenings of music.

Vienna String Sextet  
Saturday, September 22, 1990, at 8:00 p.m.

Prism Quartet and Chester String Quartet  
Saturday, November 10, 1990, at 8:00 p.m.

New York Chamber Soloists  
Saturday, January 12, 1991, at 8:00 p.m.

Take advantage of the series subscription price of \$28 and ensure the seats of your choice by purchasing your Chamber Music Series tickets immediately. Subscription orders are available by mail only and will be filled in the order they are received. Single tickets will become available August 27. Your cancelled check will be your receipt and your ticket will be mailed to you. Tickets are not refundable.

For further information, phone 708-840-ARTS weekdays between 10:00 a.m. and 12:00 noon or 1:00 and 4:00 p.m. Please remember that no subscription orders can be taken by telephone.

## **Quality Corner**

*The real benefit of communications is that it gets supervisors and employees in the habit of talking positively about quality*

The suggestion below was sent to the Office of Quality Assurance Value Engineering for consideration. The response came from Dave Carlson, Support Services.

**Suggestion:** Recent withdrawals of integrated circuits from the stockroom have been received as loose pieces in plastic bags. It is my experience that the vast majority of integrated circuits purchased by the Laboratory are supplied by vendors in plastic anti-static tubes. Is this repackaging really necessary? Why not leave the parts in the original packaging? As a moderately high volume user of these components, I find the most convenient and safest way to store these items is in the original tubes. Curiously, IC sockets have recently been received from stock in the original vendor tubes. Hopefully this practice will continue.

Integrated circuits are shipped in anti-static tubes for a reason in that they often are subject to electrical static discharge damage. The extra handling in repackaging unnecessarily subjects these ICs to potential damage. Repackaging also creates the potential for bending IC pins which makes insertion problematic. ICs left in the vendor's plastic tubes remain protected.

I realize that some rearrangement of stocking shelves may be necessary to accommodate this request. However, once this rearrangement is accomplished, I believe the Laboratory would benefit from the saved time and manpower now necessitated by the repackaging. I also feel that there are quality assurance benefits in that the users would be more likely to receive working parts without the attendant problems of repackaging.

**Response:** Thank you for your suggestion concerning the method of handling integrated circuits in our stockrooms. I certainly agree that it would be more desirable both technically and in terms of our time to keep IC's in the vendor supplied tubes. Due to our old shelving system and space requirements we were forced to repack the ICs.

Frank Cesarano has already started to convert the shelving system in the stockrooms so that we can handle the long plastic tubes without unpacking. In fact, the stockroom crew worked a considerable amount of overtime the weekend of 6/16/90 to rearrange the shelves in the Site 38 stockroom. That part of the project is nearly complete. We plan to convert the Wilson Hall stockroom starting the weekend of 6/30/90.

Frank and I discussed this project in January, and I know he has been thinking about it for a long time. It was only recently that we had the financial resources and the time to get it going. The cost of the conversion in terms of materials and overtime was a significant factor in the timing of the project.

We will continue to issue the current, repackaged, stock in bags until it is depleted. New IC's will be stocked in tubes when the shelves are ready.

**Note:** After the writing of this article, the following information was supplied by Dave Carlson:  
The Site 38 shelving project has been completed. The Wilson Hall conversion has been delayed due to the implementation of a new computer system with bar code reading capability for stockroom issues. It is hoped to have the Wilson Hall IC shelving project completed during this fiscal year.

If you have a suggestion on how to improve the quality, efficiency, reliability or effectiveness of a Laboratory service or operation, please send it to Mark Bodnarczuk, MS 200 or Bitnet Bodnarczuk @ FNAL.

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The deadline for the Friday, August 3 issue of *FermiNews* is Wednesday, July 25. Please send your article submissions or article ideas to the Publications Office, WH6NW, MS 107, FNAL::TECHPUBS or call x3278.

# *Our Environment*

## **SIMPLE THINGS YOU CAN DO**

### **LEAVE IT A LAWN**

*An acre of lawn needs more than 27,000 gallons of water every week. But Americans use even more than that; we routinely overwater our lawns by 20 to 40%.*

**Background.** Lawn care isn't something you normally associate with saving the Earth. But when you consider that there are an estimated 20 million acres of lawn—and some 600 trillion grass plants—in the U.S., you can see the impact that watering, fertilizing and mowing them might have.

If you have a lawn, it's worthwhile to learn a few environmentally sound ways of taking care of it.

### **MOW, MOW, MOW**

#### **Some Mower Facts:**

- Set your mower blades high. Don't be a victim of "golf course syndrome." Many Americans believe a healthy lawn looks like a manicured golf course; but the opposite is true. For most types of grass, the proper length is 2" to 3" high. This encourages longer, healthier roots, and provides natural shade for the ground around each plant—which enables it to retain moisture in the soil.
- Keep mower blades sharp. Dull blades tear grass (instead of cleanly cutting it), weakening the plants and making them more susceptible to weeds and disease.

#### **Grass Clippings:**

- "Cut it high and let it lie." During dry periods, leave grass cuttings on the lawn. This works well if you keep grass long and cut small amounts each time. Cuttings will serve as a moisture-retentive mulch and a natural fertilizer.
- At other times, use grass clippings and other lawn and garden waste to make a compost pile. It will provide your garden with natural mulch and fertilizer—and help reduce contributions to your local landfill.

#### **FILL 'ER UP**

- Most established lawns need about 1" of water a week, applied slowly to prevent runoff. This is

considerably more effective than shorter more frequent sprinklings.

- How can you tell if it's an inch? Put 3 cans around the area you're sprinkling, at varying distances from the sprinkler. Check them every five minutes to see how long it takes for an inch of water to accumulate in each. Add the 3 times together and divide by 3 to get an average. That's how long to water.

#### **Watering Tips:**

- Due to outdoor watering, water use in America increases by as much as 30% in the summer months.
- Water from sprinklers evaporates 4-8 times faster during the heat of the day than in the early morning. Watering at night is better than midday—there's no evaporation problem—but it can cause fungus in the grass plants. Best choice: water in the morning.
- In a drought, don't waste water on grass beginning to turn brown. It's dormant and will revive after normal rainfall begins again.

#### **ABOUT PESTICIDES**

- Homeowners use up to 10 times more toxic chemicals per acre than farmers.
- The average homeowner uses 5 to 10 pounds per lawn—for a national total of some 25 to 50 million pounds! Many scientists believe these chemicals endanger the songbird population (by contaminating the worms they eat), as well as polluting groundwater.
- A green, healthy lawn is possible without chemical pesticides. (Source: *The Chemical-Free Lawn*, Warren Schultz, Rodale Press, 1989)

#### **RESULTS**

- If every lawnmower composted grass clippings, we could cut the landfill congestion by a whopping 18% during summer and spring.
- Avoiding overwatering can save about 12% of a homeowner's water use during the summer—an average of over 50 gallons a week. If 100,000 lawnmowers did this, 5 million gallons would be saved.
- If even 10% of lawnmowers began using organic pesticides, it would remove 2.5 to 5 million pounds of toxic chemicals from the environment every year.\*

\* Excerpt from: *50 Simple Things You Can Do To Save The Earth*,  
The Earth• Works Group

## NEW NALREC LOGO DESIGN

Something new has been added to the front desk this summer. NALREC has a new t-shirt design, a work of art by Fermilab's award-winning artist **Angela Gonzales**. The new design will be available on most NALREC sponsored items, such as mugs, hats, etc. You can call Connie at x3353 for further information.

Pictured to the right is the new design by Angela Gonzales which will be featured on NALREC T-shirts, mugs, hats, etc. T-shirts bearing this new design are available at the Front Desk in the Atrium of Wilson Hall.

The design description follows:

The innermost circle depicts Wilson Hall with Canada geese and reflecting pond.

Next, is the circle representing the main ring accelerator with booster ring and antiproton source and three fixed target beams.

Outside of the main ring symbol is clockwise: astrophysics symbol, collision representation and fixed target representations, prairie plants, Fermilab logo and particle symbols.

The larger circle has, clockwise: a modified geodesic dome atop the assembly building of the Neutrino Area, the Collider Detector Building (CDF), the Proton Area symbolized by a stylized pagoda and the Meson Detector Building with its scalloped roof.

In the outermost circle (starting at the top and moving clockwise) is: the sculpture Tratricious with the Feynman Computing Center in the background; Mobius Strip, located on the roof of the Auditorium; Hyperbolic Obelisk in front of Wilson Hall and Broken Symmetry at the Pine Street entrance. Particle symbols are interspersed between these sculpture representations.



### ...FROM HARPER'S INDEX

Amount of trash left in New York City's Central Park by people attending Earth Day festivities in tons: 100

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