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Fermi National Accelerator Laboratory

Fermilab Technology Assessment Reaches Milestone

The transfer of technology from federal installations, such as Fermilab, to the private sector has, in recent years, taken on heightened importance. New laws have been enacted which allow employees of national laboratories to share in the fruits of their ingenuity, while private industry is looking to federallysponsored research and development for innovative and marketable technology.

A deceptively low-key gathering, on the Wilson Hall 2nd-floor crossover on January 18, marked a milestone in Fermilab's technology-transfer activities. Assembled to celebrate the awarding of the 500th Fermilab technology assessment were Fermilab engineers and physicists; Dick Lundy, Fermilab Associate Director for Technology; Dick Carrigan, John Venard, and Pat Oleck of the Fermilab Office of Research and Technology Applications (ORTA); and technology-transfer and patent professionals from the Department of Energy (DOE). The second, but no less important, reason for the gathering was to present \$50 honorariums and specially-designed certificates to Fermilab staffers who had filed a Record of Invention in the past year.

A technology assessment is the first link in what may prove to be a golden chain connecting an inventor to a royalty-producing patent and license. A Fermilab inventor submits a Record of Invention (basically a description of his or her creation) to the ORTA. ORTA assigns a case number and begins the protracted process of patent searches, leading to eventual licensing to industry for manufacture. If an invention reaches the market, the Fermilab inventor and URA share in any ensuing royalties.

The honors for being the 500th assessment went to FIRUS-88, a "distributed fire, utility, security, and power-consumption monitoring system" devised by Charlie Briegel, Kevin Cahill, Allen Franck, and Rich Mahler, all of the Accelerator Division Controls Group. FIRUS-88 is an updated version of the FIRUS alarm system which has been successfully monitoring Fermilab buildings for years.

Dick Lundy opened the ceremonies by noting, "We have been urged by DOE to encourage our people to be inventive and to transmit the results of that invention to the outer world. We do that for a number of reasons. For one thing, it's absolutely a good thing to do because new technology benefits society, it's fun, and new technology can pay off handsomely. Last, but not least, it's good for Fermilab's public posture."

Dick Carrigan, Head of ORTA, observed that Fermilab had a tremendous technology-transfer track record long before the inception of ORTA. "The **Continued on page 4**

Car-Deer Collision Data Analyzed

With the onset of cooler weather, more deer have been seen near Fermilab roads. Unfortunately, there has continued to be an increase in the detected onsite car-deer collision rate. Between September 11, 1988, and December 22, 1988, 19 car-deer collisions were reported, most of them occurring at dawn or dusk.

Drivers are encouraged to be especially alert for the sudden appearance of deer, and to drive slowly around wooded areas. Deer freeze in their tracks when they see car lights and it is often difficult to avoid hitting them.

Fermilab accident reports indicate the following trends: • 37% of the accidents occurred between 5:00 a.m. and 8:00 a.m. • 47% of the accidents occurred between 5:00 p.m. and 6:30 p.m. • The locations are usually near the more heavily wooded areas, i.e., Pine and Wilson streets near the Kirk entrances and along D Road near the Switchyard Service Building.

- Nancy Berendt

Onsite Housing Request Deadline

The deadline for receipt of reservations for summer onsite housing is March 1, 1989.

Housing assignments will be made in April, and responses should be mailed out by April 14, 1989. The starting date for summer occupancy is June 1, 1989.

For further information, please contact the Housing Office at ext. 3777 or VAXmail FNAL::HOUS-ING. - Cheryl Bentham

Cambridge Buskers Tootle into Auditorium

Lovers of Victor Borge, Peter Schikele, and Flanders and Swann, take note: The amazing Cambridge Buskers continue this tradition of inspired music-making and humour in performance at Fermilab's Ramsey Auditorium on Saturday, February 18, 1989, at 8:00 p.m.

The Cambridge Buskers are Michael Copley, purveyor of some 40 tootling wind instruments (flutes, recorders, penny whistles, panpipes, ocarinas, crummhorn, cow whistle, etc.), and David Abraham Gillespie ("Dag") Ingram, master of the concert piano accordion. This peerless duo will perform your favorite classics - Bach and Vivaldi, Beethoven, Schubert, Mendelssohn and Tchaikovsky, Mozart, Verdi, and Wagner, even Copland and Joplin - as you've never heard them performed before. Irreverent as this may sound, the Cambridge Buskers cross the border from poking fun at music to having fun with music, a feat possible only for those who truly understand the compositional styles and idioms they lampoon. And these two showmen possess "the kind of virtuosity that causes people to

shake heads and raise eyebrows in amazement - even musicians!"

How do the Cambridge Buskers describe themselves? "Two young English gents. Met at Cambridge University. Virtuoso musicians on accordion plus 40 wind instruments. Started working the streets and have the police records to prove it. Now give successful concerts in major halls everywhere." They were offered, and signed, a contract with the prestigious Deutsche Grammophon recording label, began getting an enormous amount of radio air-play, and in rolled invitations to perform on many of the world's major concert stages. Not bad for two street musicians who started out playing in the London Tube!

An evening of merry music-making awaits you for an \$8 admission fee. Reserve your tickets by calling ext. ARTS weekdays between 10:00 a.m. and 12:00 noon, or 1:00 and 4:00 p.m. Phone reservations are held for five working days awaiting payment, but due to ticket demand, will be released for sale after that time. - Tammey Kikta

Space Research Next Lecture-Series Topic

With the recent successful launch of the space shuttle *Discovery*, the United States is at a pivotal point in its space-science program. Dr. Louis Lanzerotti speaks of the exciting backlog of research projects ready to take flight, and examines some of the challenges facing our space program, in his talk, "The U.S. Space Research Program: Future Prospects," on Friday evening, February 3, 1989, at 8:00 p.m. in Fermilab's Ramsey Auditorium.

Dr. Lanzerotti is a Distinguished Member of the Technical Staff at AT&T Bell Laboratories in New Jersey, and was the Chairman of the NASA Space and Earth Science Advisory Committee from 1984-1988. In his lecture he will describe several major space research missions ready to be launched in 1989 - the Hubble Space Telescope, the Magellan Venus orbiter, the Galileo Jupiter orbiter - and examine some of the sociological issues of policy, program, and management which must be addressed if scientific advances in space research are to continue. These include innovating cost control approaches, optimizing the use of available funds, and stablizing yearly budgets to ensure project completion; establishing balance between small-scale experimental missions and larger, high-visibility projects; attracting talented young scientists to sustain previous innovative work; and creating a new framework for evaluating competing research proposals.

Dr. Lanzerotti is a past recipient of NASA's Distinguished Public Service Medal and is Chairman of the Space Science Board of the National Academy of Sciences. His principal research interests include studies of planetary magnetospheres, energetic particles emitted by the sun, and the impacts of space processes on space and terrestrial technologies. He has published extensively in the field, and is coauthor and/or co-editor of three books.

Admission to Fermilab Lecture Series events is \$2. As is customary at Fermilab's public lectures, a question-and-answer session and reception will follow the talk. Reserve your seat by calling ext. ARTS weekdays between 10:00 a.m. and 12:00 noon, or 1:00 p.m. and 4:00 p.m. Phone reservations are held for five days awaiting payment. - Tammey Kikta

Fred Assell's Friends Plant a Living Memory

A small blue spruce decorated with Christornaments mas and lights stands at the east end of Warehouse 2 in memory of Fred Assell, who died of cancer on October 7, 1988. According to Bill Butler, Coordinator, Support Services, the idea for the living memorial came from some of his friends and co-workers in Ship-



and co-workers in Shipping and Receiving - planted in his memory. They are (l. to r.), Bill Butler, Marilyn Collins, Lorraine Walter-Smith, Bonnie Beverly, Lorraine Walter-Smith, and Marilyn Collins.

Seraphin, Ed Oliver, and Frank Beverly. All five felt that a tree would be the most appropriate memorial because Fred loved the outdoors. They will continue to honor Fred by decorating the tree on his birthday and each Christmas.

Frank, who worked closely with Fred, explained that once they had the idea of the tree memorial, they talked to Bill who made a call to Bob Hall, Supervisor, Roads and Grounds, to find and plant a suitable tree. Roads and Grounds planted the spruce,

R&D 100-Award Submissions

Once again, Fermilab has an opportunity to prepare applications for R&D 100 awards. These ideas need not be patentable, but should be innovative. Any new technical idea that was first available for contract or licensing between January 1, 1988, and December 31, 1988, (or, in special instances, completed and delivered by a federal agency or lab during that period) is eligible.

For the first review, a preliminary sketch and/or descriptive paragraph is adequate. These should be submitted to Dick Lundy, Fermilab's Associate Director for Technology, by February 3, 1989. Persons who submit viable ideas will be contacted shortly thereafter and will be given whatever assistance is necessary to the preparation of final, detailed submissions.

Number of hours it would take for all the Coca-Cola ever sold to flow over Niagara Falls: 23 which came from Site 55, before Christmas. A plaque placed near the tree bears the following inscription: "In Memory of: Fred Assell, 18 Years of Outstanding Work 10/7/88, His Memory Lives On Forever."

But the memorial doesn't stop with the plaque and the tree. For example, Clara Morton (Supply Services), who worked for Fred for about 8 years, wrote a poem in his honor. The poem, written on a

wood plaque carved by Roger Braun (Shipping and Receiving) and decorated by Bonnie and her mother, hangs near where Fred sat in his office in Warehouse 2. "I cried when I wrote the poem," said Clara, and she described him as a "one-in-a-million guy." Frank echoed this sentiment: "I have a lot of good memories of working with Freddy - he was always willing to help out; he was a fair and just man. He was like a second father to me." - Kevin A. Brown

Film Society Seeks Members

If you are interested in joining the Fermilab International Film Society, please plan to attend the Film Society meeting in the Black Hole, WH2NW, Tuesday, January 31, 1989, at 5:30 p.m.

For more information, contact Paula Garrett at ext. 3401.

20th-Anniversary Souvenir The videotape, "Water to the Ropes - the Evolu-

The videotape, "Water to the Ropes - the Evolution of an Accelerator," which was shown at the 20year anniversary ceremony, is available for purchase in VHS format for \$10 per copy through Visual Media Services. Call ext. 4364 or write to MS 202.

Percentage of *Gilligan's Island* episodes that were about getting off the island: 32

Estimated percentage of U.S. gasoline consumption that occurs during traffic jams: 4

Feynman Book Offered by Public Information

A new book is being offered for sale by the Public Information Office (PIO). In light of the recent dedication of the Fermilab Feynman Computing Center, the PIO has added Richard Feynman's last book, What Do you Care What Other People Think?, to their collection. In the first part of the book, Feynman movingly and wittily describes the influences of those who most shaped his personality. The second half of the book is devoted to Feynman's behind-the-scenes account of the investigation that followed the space shuttle Challenger's explosion in January 1986.

In conjunction with the recently celebrated 20th anniversary of Fermilab, another timely book offered by the PIO is The Birth of Particle Physics. Edited by Laurie M. Brown and Lillian Hoddeson, Fermilab's archivist/historian, this book is based on lectures and roundtable discussions from the "International Symposium on Particle Physics" held at Fermilab in May of 1980.

Congratulations to:

Maureen and Joe (BS/Purchasing) Collins on the birth of Timothy Joseph on December 9, 1988, at 4:15 a.m. at home. According to Joe's fish scale (seriously), Timothy weighed 7 lbs and he measured out at 21 in. Timothy has a brother, Joseph, and two sisters, Rachel and Meghan.

Nona (TSS/MDTF) and Richard (LS/Publications) Fenner on the birth of Anne Christine on December 15, 1988, at 4:50 a.m. at Delnor Hospital. Anne weighed 7 lbs and was 19 in. long.

Elaine (AD/Booster) and John (AD/Operations) Crawford on the birth of Christopher James on December 16, 1988, at 1:42 a.m. at Delnor Hospital. Christopher weighed 7 lbs, 9 ozs, and was 19-1/2 in. long. Christopher has a sister, Kendra, and a brother, Ryan.

Jean and Peter (Res. Div.) Garbincius on the birth of Joanne Francis on January 1, 1989 (first baby born in Kane County in 1989!!), at 10:00 a.m. at Delnor Hospital. Joanne weighed 9 lbs, 13 ozs, and she has a sister, Ellen.

"Technology" continued from page 1

magnetic-resonance imaging (MRI) industry in the United States really benefited from the work of the Accelerator Division and Technical Support Services in developing the TEVATRON. That industry, which is now a billion-dollar-a-year market, may have been speeded-up by two years thanks to Fermilab's work.

"Recently, Fermilab brought the Loma Linda Medical Accelerator into first operation. That is an example of a tripartite arrangement between Fermilab, Loma Linda Medical Center, and Science Applications International Corporation, one of our Industrial Affiliates.

"FIRUS-88, our 500th technology assessment candidate, is, in its newest form, software. DOE has offered us the opportunity to start copyrighting software under certain circumstances. The Lab is preparing to accept that opportunity so that Fermilab technology can do even more."

The Fermilab Barnstormers...

. . . will host their annual Delta Dart Contest on Wednesday, February 8, 1989, at 5:30 p.m. at the Users Center. Everyone is invited.

A Delta Dart is a small, rubberband-powered airplane constructed of balsa wood and tissue paper. You can build one of these airplanes in about a half an hour and fly it indoors that evening in the Village Barn for fun and prizes. No experience is necessary since you will be guided through every assembly step and given some instructions for efficient flying. The entry fee is \$2 (no entry fee for children under the age of 12), which includes the kit and glue. A junior-class contest will also be held, so bring the kids.

For more info, call Glenn Mayer at ext. 4726 or Glenn Lee at ext. 4448.



FOR SALE

Motorized Vehicles: 1983 BUICK CENTURY LIMITED, mint condition, 4-dr, A/C, AM/FM stereo, 3-liter V6, 43,000 one-owner miles, \$4200. Call Greg at ext. 3727 or 879-0179 evenings.

1984 250R HONDA, great condition, many new parts, \$600 or best offer. Call 466-4033 after 3:30 p.m.

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Benefits Notes EXTRA

The Fermilab Benefits Office is in the process of instituting the first-ever major change to the active-employees' Life, AD&D, LTD, and pension programs.

Of particular significance are the changes to the Universities Research Association, Inc., pension program. Fermilab employees will now have (1) greater self-direction in how their contributions are invested and (2) the potential for tax deferral of a larger portion of their earnings, both of which can have a major impact on one's future economic well-being.

By this time, all active employees should have received a letter, dated January 16, 1989, that outlined these changes. A second mailing, made the week of January 23, included a description of the changes to the pension plan, and an application and election form which allows you to elect deferrals and your investment method of choice. All active employees *must* complete and return the form to the Benefits Office, MS 124, by February 6, 1989. We emphasized "must" for a reason. If that form is not executed, the payroll situation for each employee will become confused, and delays in issuing individual payroll checks may result.

As with any change, there are likely to be questions. Therefore, the Benefits Office will be conducting informational meetings for active employees in the Ramsey Auditorium on:

• Monday, January 30, 1989, at 1:00 p.m. and 3:00 p.m.;

• Tuesday, January 31, 1989, at 8:00 a.m., 10:00 a.m., 1:30 p.m., and 3:30 p.m.; and

• Wednesday, February 1, 1989, at 12:00 noon and 2:00 p.m.

Tom Koob, a TIAA-CREF representative, and Paula Cashin, Benefits Office Manager, will be on hand to answer your questions, review available investment opportunities, and help you delineate your deferral options. We urge you to attend one of these meetings. Since the pension plan is open to all active Fermilab employees meeting the service requirements, there are many new participants among the Fermilab community, and their attendance at these meetings is also important.

If you did not receive either of the letters mentioned above, or if you have any questions or need additional information prior to the meetings, please call the Benefits Office, exts. 4361, 4362, or 3395.

- Paula Cashin