

FERMINES

 Fermi National Accelerator Laboratory

Operated by Universities Research Association Inc.
Under Contract with the United States Department of Energy

Vol. 2, No. 22

May 31, 1979

TALKING COMPUTER ASSISTS OPERATORS IN CONTROL ROOM

A new member of the main control room staff is obedient and always complains when something is not going right.

It's a talking microprocessor computer, given the exclusive mission of telling control room operators when something goes wrong in the accelerator system.

By pushing a special button, the talking computer introduces itself with: "Hello. I am the voice of Votrax. I am interfaced to a Kim microprocessor..." And it goes on in its decidedly computerized voice to tell the listener what its primary functions are and its purpose for being there.

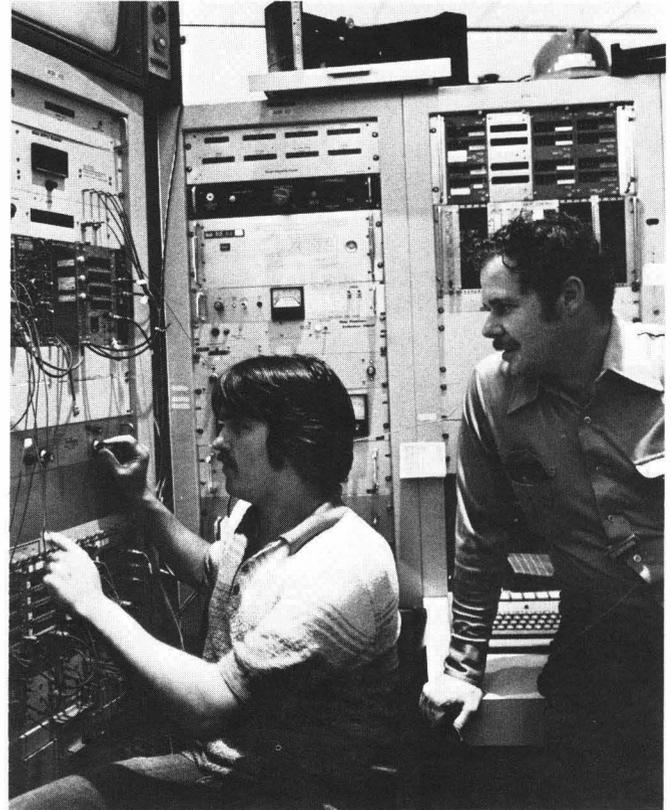
Already it can say eight different things, most of them technical and having meaning for the operators who programmed the talking computer. Part of its vocabulary includes: "radial position abort," "console abort," "power supply," "second level," and "LESS." High overhead a viewing panel lights up and displays in large print--coinciding with Votrax's enunciations--the area that needs an operator's special attention.

It has a potential vocabulary that is considerably larger than the number of words in an unabridged dictionary--several million combinations of 52 basic phonemes (speech sounds) in any of four different inflections. So should a person hear a precisely paced, somewhat aristocratic-sounding voice emanating from the control room, that would be the talking computer.

Votrax is definitely more personable than an insensitive tone, buzz or beep that warns of a problem, said Jeff Gannon, leader of Operations.

An whoever heard of a buzz or beep saying "Glitch, glitch" when there's an unexpected power failure?

* * * * *



...Wally Kissel (L) and Duane Plant, control room crew chiefs, work with talking computer. They, along with Marv Olson (not shown), crew member, put Votrax together...

REMINDER TO RUNNERS

The jog with the Director will take place at 7 a.m. June 1.

Runners are asked by Dr. Leon Lederman to come to the parking lot on the east side of the Central Laboratory prepared to walk or run around the Main Ring. Those who finish will be treated to breakfast.

The event will be held despite the weather, unless it rains excessively.

* * * * *

PUBLICATIONS SHOW FERMILAB HIGH
AMONG LEADERS IN PARTICLE PHYSICS

Fermilab had the fourth largest number of authors who wrote in 1976 the 100 physical sciences articles most cited during 1976-77.

Current Comments, a column of the Institute for Scientific Information, compiled the 100 physical sciences articles (written in 1976) that were most cited during 1976-77. The column then sorted the authors according to the institutions they were affiliated with.

Harvard University led the list with 15 authors. The Massachusetts Institute of Technology came in second with 12 authors, then the University of California-Berkeley with 11 and Fermilab with nine. Fifth on the list was the University of Pennsylvania with eight.

"While physics papers dominate the list..., this doesn't mean physics is more significant than other disciplines represented," wrote Eugene Garfield, author of the column that appeared in a recent issue of Current Contents, an ISI publication. "It simply indicates that certain physics specialities were quite active in the period following the appearance of these papers in 1976."

He also noted that of the 29 journals that published the 100 articles, Physical Review Letters contributed 41 papers and Physics Letters B contributed seven. These two journals counted for about half of the papers, he said.

Garfield further said that about one-third of the papers on the list, or 33 of them, deal with elementary particle physics. He then goes on to explain what is meant by particle physics, and says, "It is noteworthy that the average number of authors on these papers is 14.4. Furthermore, each paper involves about half a dozen institutions."

One revelation came out after a deeper analysis. "Since elementary particle physics was very active in 1976, we were curious to see what the 1976 list would look like without the domination of these particle physics papers," he wrote. "We found that the next 33 most-cited items are nine more papers in particle physics, seven in solid state physics, five in astrophysics and astronomy..."

* * * * *

SCHEDULE GROUP TOURS AHEAD OF TIME

It's that time of year when more people are getting out and visiting Fermilab.

That's fine, but problems frequently arise if tours of 10 or more persons are not cleared with Patricia Zack in the Public Information Office ahead of time, preferably at least two weeks.

Sometimes a room must be reserved or the cafeteria notified if a group plans to eat there. Also, safety regulations must be followed. "We also ask Fermilab employees who may be taking a group on a tour to remember that each elevator was designed to hold a limit of 12 persons," said Zack.

Conflicts with other tours can be avoided, overcrowding reduced and overall good feelings generated simply by telling Zack well ahead of time.

She has a blue-colored information sheet called a "Facilities Request Form" that asks a few questions and is of considerable value in clearing the way for group tours.

Dropping in unannounced or on short notice creates problems. It's better--much better-- to call Zack first, Ext. 3351, or to visit her at CL 1-W.

OPEN HOUSE AT ARGONNE NATIONAL LABORATORY

The Argonne National Laboratory will celebrate its 33rd anniversary with an open house June 16.

Most of the laboratory and its site will be open to the public, but admission will be by ticket only. Tickets may be obtained in advance from the Fermilab Public Information Office, CL-1W. Information brochures containing a map of the Argonne site and brief descriptions of the laboratory's facilities also are available at the Fermilab Public Information Office.

Clubs and children are welcome. Picnickers are invited to use Argonne Park, across the street from the laboratory's main entrance, or the lawn near the main cafeteria where a noon concert is scheduled.

* * * * *

...Leading the way to the planting site is the Batavia Junior High School band. About 75 musicians are in this group, led by Mike Stiers, band director, who also is a security officer at Fermilab...



Shrugging off gusty breezes, volunteers planted more than 200 trees in 12 varieties during Fermilab's arbor day 1979. Hundreds of geraniums in small pots were given to the workers, who enthusiastically helped Fermilab upgrade the beauty of the grounds around the liquid helium facility.

...Phil Livdahl (light-colored shirt), Fermilab acting director, and Chinese experimenters plant one of the larger trees...

...Struggling against a strong wind, volunteers plant trees around the liquid helium facility...



TRAVEL FILMS
TO BE SHOWN

Two travel films,
"Oktoberfest in Austria"
and "Romantic Europe,"
will be shown June 12.

Presented by Prestige
Vacations, Inc., the program
will begin at noon in the
conference room on the west
side of the first floor in
the Central Laboratory.

Admission is free.

* * * * *

GRADUATE STUDENTS TO MEET

Graduate students will
hold a dinner meeting June 4
at 6 p.m. in the Users Center.

* * * * *

ACTIVITIES AROUND FOR FERMILAB PEOPLE

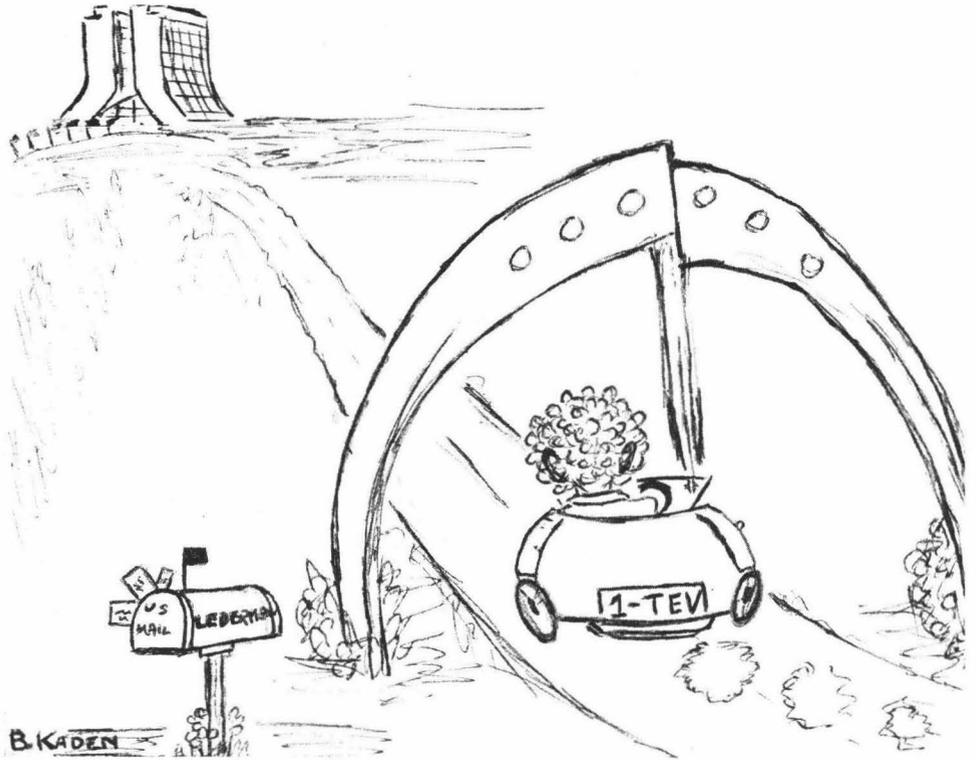
Fermilab could aptly be called a rec-
reation land this season with its selection
of activities.

Individuals can immerse themselves as
much as they like in tennis, basketball,
swimming, softball, squash, canoeing and
fishing. A playground and an exercise
room are in the Village.

Groups that continually organize
special events include NALREC, responsible
for planning recreation activities, and
NALWO, a group of Fermilab women who arrange
activities for visitors and a cooperative
playgroup for children. Fermilab garden,
music and chess clubs also offer creative
outlets.

Along the cultural spectrum, the aud-
itorium arts series presents a major
program every month. The Fermilab Inter-
national Film Society each month shows a
movie that has earned praise from critics
and viewers.

At the Users Center in the Village,
persons can check out their skill at
billiards, ping pong, shuffleboard, darts
and color television watching. The
prairie restoration project offers the



...June 1, 1979...

satisfying experience of helping others
return the area inside the Main Ring to
its native state.

For additional information contact Helen
McCulloch, recreation coordinator, at
Ext. 3126. Her office is in the Central
Laboratory, 1W.

* * * * *

TWO MAGAZINES RUN ARTICLES ABOUT FERMILAB

Two magazines, one with a national
circulation, have published articles about
Fermilab and the research that is being
conducted here.

Both articles appear in the June
issues.

"Artful Dodger of the Physical World"
is the title of the article in OMNI.
Written by Hal Hellman, with photography
by Dan McCoy, the article is about neutrinos.

"Quark Hunters" is the heading of
the article written by Jack Hafferkamp that
appears in CHICAGO magazine.

* * * * *