FERMINEWS

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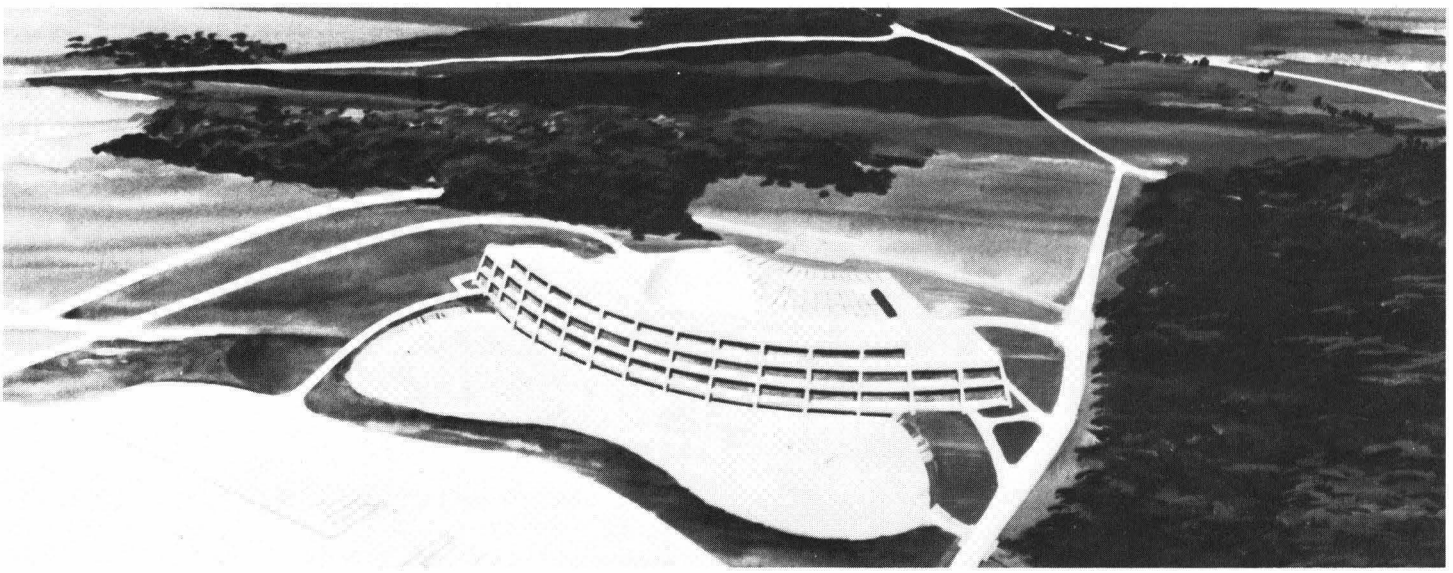

*Space Telescope Science Institute (artist's concept) looking west from Central Laboratory.*

## URA BEGINS PREPARING PROPOSAL FOR SPACE TELESCOPE SCIENCE INSTITUTE

Universities Research Association has made the decision to prepare a proposal for locating a Space Telescope Science Institute at Fermilab.

URA is preparing the proposal in cooperation with astronomers from the University of Chicago, in association with astronomers from the University of Wisconsin, University of Illinois, University of Texas and Beloit College.

Work on the proposal has already begun, said James C. Matheson, URA vice president. When completed later this year, the proposal will be submitted to the National Aeronautics and Space Administration, the agency that will make the final decision on where to locate the facility. The institute will manage the science operations of an orbiting telescope that is expected to be launched in 1983, shortly after the institute is operational.

"NASA is seriously considering placing the scientific management of the space telescope observational program with an institute operated under contract by a university consortium, in a manner analogous to the operation of other national laboratories and observatories," said Matheson. "Of course, we will be competing with other consortia for the institute. However, we are convinced Fermilab offers significant advantages over other sites."

Among these he listed:

A uniquely attractive site with respect to scientific ambience, technical support, central location and proximity to a strong university astronomical community.

The capacity to call on the full potential of URA's existing management strength and broad geographical membership representation.

NASA is expected to formally request proposals for the Space Telescope Science Institute this month and to make its decision by the fall of 1980. The initial contract will be for five years.

Data collected by the orbiting telescope will be transmitted to NASA's Goddard Space Flight Center at Greenbelt, Maryland, and then be sent to the Institute for processing and analysis.

One of the proposed locations would

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place the institute building just west of the Central Laboratory across the small pond next to Swan Lake. When fully running, the institute is expected to have about 100 permanent staff members to support visiting scientists from the United States and European astronomy community. Approximately one-third of the staff will be scientists, mainly astronomers and computer experts.

The annual budget is expected to be in the $4 to $5 million range. Construction costs for the building that will house the institute are estimated at about $4 million.

In a 1976 study, the National Academy of Sciences recommended that such an institute be established. The facility will monitor and control the scientific operation of a 2.4 meter space telescope that is expected to be launched by NASA from the space shuttle in 1983.

Dr. David N. Schramm, chairman of the Department of Astronomy and Astrophysics at the University of Chicago, his voice filled with enthusiasm, said the institute holds monumental advantages for the Chicago-land area. "It will become the major astrophysics center in the world, and when coupled with Fermilab, a national laboratory for high energy physics, we will have a phenomenally valuable community of scientific talent."

Once the space telescope is launched and operating properly, "we are going to see deeper into space than through any existing telescope," he said. "We will increase the volume of the universe we can explore by a factor of 1,000; we'll see many more exotic objects; we'll see farther back in time. Astronomers also will be able to see the planets of nearby stars for the first time." Since the telescope will be above the Earth's atmosphere, distortions such as twinkling and shifts in position that it causes will be eliminated, he added.

"The orbiting telescope will revolutionize the field," he continued. "It will be the major instrument for the next two decades. It will become the fountainhead for all future space research. And because it will be put in orbit by NASA's space shuttle, it can be modified to accept the latest technical advances.

"It'll do great things for us."

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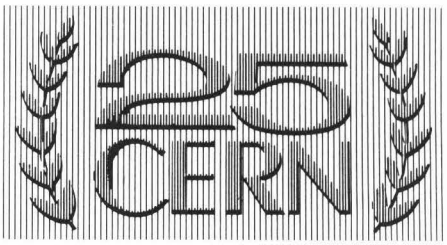


*...CERN is celebrating its 25th birthday, having been born Sept. 29, 1954, when member states ratified the convention establishing the European Organization for Nuclear Research. From around the world have come congratulations praising CERN for its outstanding contributions to high energy physics and for being a paragon of collaboration...*

FERMILAB SINGS WAY TO CERN

The Fermilab chorus in concert at Carnegie Hall? Not quite, but close to it, maybe...

It began when Arthur Roberts of Fermilab was commissioned by Fermilab to write a song commemorating CERN's 25th birthday.

It was to be Fermilab's birthday present to CERN.

With Ray Lubway of the Laboratory School of the University of Chicago singing lead and Leon Lederman, Fermilab director, John Peoples, Drasko Jovanovic and Richard Carrigan singing chorus, their performance was recorded Sept. 15 at Fermilab in the Central Laboratory auditorium, the site of many prominent concerts. A cassette of their concert along with a copy of the music and lyrics was enclosed in a handsome, wood portfolio and mailed to CERN.

Roberts has been writing songs, including some about physics, for many years. Some have even been recorded.

The performance was directed by Janice Roberts of the Guest Office. Arthur Roberts accompanied on the piano. Jim Schallenberger of Fermilab recorded the performance.

(Special note: the recorded version ends with Lederman saying "Happy birthday, CERN, from Fermilab," then with a flourish, "Watch out!")

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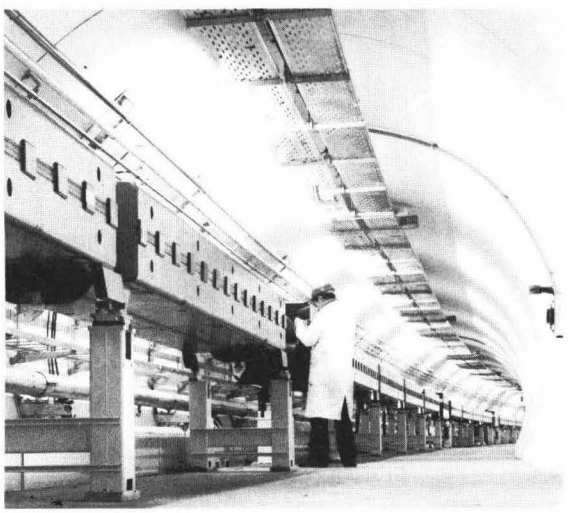
*...Arthur and Janice Roberts...*


*...The gift...*



*...Inside the CERN SPS tunnel...*

## YOU MIGHT WANT TO READ

Michael S. Turner and David N. Schramm have written an article about "Cosmology and Elementary Particle Physics."

It appears on page 42 in the September 1979 issue of Physics Today. Turner is Enrico Fermi fellow and Schramm is chairman of the Department of Astronomy and Astrophysics, both at the University of Chicago.

The article, somewhat technical, examines how recent developments in cosmology and high energy physics have begun to illuminate each other, "making interdisciplinary work involving them not only possible but even exciting."

* * * * *

### HAPPY BIRTHDAY, CERN!

I

Near the lake of Geneva, near the ski slopes Jurassic,
Lies a physics Yeshiva, in a home neoclassic.
They've a budget elastic, their machines are the best -
Their ideas are fantastic, and precisely expressed.

They're smart, they're rich, they've heart - they've which?
They're the elite - who can compete? Ah...

REFRAIN:
CERN is great. Twenty-five and still expanding,
CERN's first rate! Sneers and envy notwithstanding,
CERN's well-run! Trying to gain a lead commanding.
Everything a physicist desires is at CERN!

II

The cafeteria's stupendous, serves ambrosia and nectar,
All the leaders tremendous, from concierge to director,
Electronics transcendent, wire chambers are tops,
Superstars most resplendent, also excellent shops.

They've guile, they're sleek, they've style, they've chic!
Their pace is fleet and hard to beat! Ah...

CERN is great! Physics there's a thing of wonder!
CERN's first-rate! Selection panels never blunder.
CERN's well run! Just a little blood and thunder.
Everything a physicist desires is at CERN!

III

Here's a toast we're proposing: may your future be greater,
And the budget imposing for your next accelerator;
May your staff be effective and your beams full of pep,
May you gain your objective of constructing the LEP!

They're tough - that's true. They're rough - That too!
They're kind - they're not! They're sweet - they're WHAT? Ah...

CERN is great! All good men find recognition,
CERN's first-rate! Bright ideas all reach fruition,
CERN's well-run! Decisions all above suspicion,
Everything a physicist desires is at CERN.

FINAL REFRAIN:
CERN is great! Everybody loves each other!
CERN's first-rate! Trust each other like a brother!
CERN's well-run! Except one guy I'd like to smother!
Everything a physicist desires is there!

## SITE PATROL PURCHASES NEW VEHICLES

Your eyes aren't deceiving you. That's a three-wheel vehicle the Fermilab security officer is riding. And for good reason, too.

The three-wheelers - two of them for now - were introduced for two major reasons, said Rudy Dorner, manager of emergency services. The first was to conserve even more fuel. In the past 18 months, consumption of fuel by security vehicles dropped 18 to 20 percent, said Dorner. And now with the addition of the tricycles, even more conservation is anticipated.

The second reason is that the tricycle gets the patrol officer out of the car and into closer contact with people, particularly in the Village, where one tricycle is now patrolling. The second tricycle will patrol the parking facilities around the Central Laboratory.

An officer on a three-wheeler always is in contact with fellow officers through his or her two-way radio. Furthermore, a patrol vehicle will be parked in a central location so that the officer can get to it quickly if necessary.

The idea of using bicycles and three-wheelers to patrol areas is not new. Many police departments throughout the country use them, particularly those in the larger cities. Law enforcement officers use them to patrol parks, for example. Two-wheelers can cover more area in a shorter time, but inherently are more unstable than the three-wheel vehicles, which, according to Dorner, is the ideal choice for patrolling the Village and other selected site areas.

* * * * *

*...Robin Graham in the Village...*

## GESTURE OF FRIENDSHIP

Having trouble with your Chinese?

Then the Fermilab Library is the place to go. It has "A Chinese-English Dictionary." The volume was sent as a gift from the library at the Institute of High Energy Physics, Academia Sinica, Peking, Peoples Republic of China.

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## AN EVENING WITH MAYNARD FERGUSON

World-famous Maynard Ferguson will perform in concert Oct. 12 at 8:30 p.m. in the Central Laboratory auditorium. Tickets, at $7 each, may be obtained from the Guest Office, CL1-W, Ext. 3124.

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"DON'T LOOK NOW"

Presented by the Fermilab International Film Society

Saturday, Oct. 13 8 p.m. Central Laboratory Auditorium

A powerful film that explores the realm of extrasensory perception in a searing and horrifying way. At the time the film was made--1974--it was regarded as director Nicholas Roeg's best work so far. The film opens with the death of a young girl and builds to a dark and frightening experience.

R Color 110 minutes Adults $1.50

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