

CDF Rolls and Readies Detector for First Test

On Tuesday afternoon, September 10, at 1 p.m., the CDF Central Detector, measuring 35 feet in any direction and weighing 2000 tons, took its first step toward the B0 Collision Hall where it will undergo the first test run on its journey into the heart of matter, using antiprotons from the Antiproton Source to observe matter in collision at 800 GeV on 800 GeV.

The world's largest detector (which is as heavy as a World War II destroyer, or about 1/3 the weight of the Eiffel Tower, according to Bob Mandernack who directed construction of the Detector) took 16 hours to cover the 100 feet from the B0 Assembly Area to the Collision Hall: two feet every ten minutes when moving.

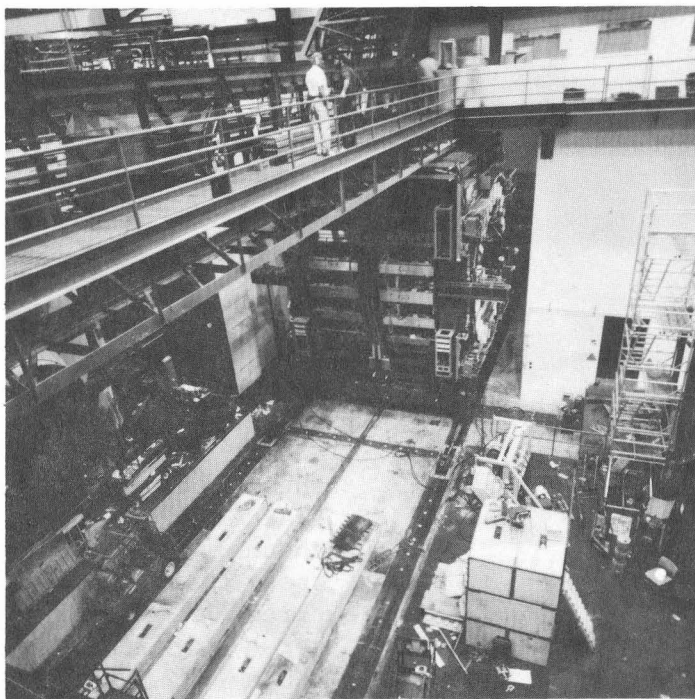
Preparatory to Tuesday's move, the CDF team spent Monday removing the huge, 1200-ton shielding door between the Assembly and Collision areas, and bringing an equipment transporter into the Collision Hall.

By Wednesday, the Central Detector, which is essentially complete with the exception of the two end plugs (each of which weigh around 100 tons) containing gas-type calorimeters was moved into position in a newly-cut gap in the Tevatron beamline. Then alignment was begun, laterally positioning the Detector to within $\pm 1/8$ th in. relative to the beamline. Vertical alignment had to wait until later in the week because, said John Grimson, Senior Engineer with CDF, "The floor under the Detector eventually settles about 5/8ths of an inch.

"That means that every time we move from the Assembly Area to the Collision Hall and back again, we're creating a teeter-totter effect; we make every move going uphill." The floor under the Detector itself is four feet of concrete, inlaid with leveled steel rails, and topped off by another foot of concrete. "The soil underneath the floor is like mashed potatoes; it squeezes back and forth as the Detector passes over it."


As designed by Grimson and John Rauch, the Detector's transport system utilizes

two hydraulic cylinders, each of which can push up to 100 tons, or pull up to 60 tons, and eight, 500-ton Hillman rollers, like miniature tank treads, which have a pulling force of 3% of the load whatever the weight. The rollers will crawl over debris and imperfections of up to 1 inch. This is the second roller design. The first one was tested on a transport cart with a 200-ton load. "We tried to anchor it to the [1200-ton] shielding door," said Grimson, "and the door moved."



The CDF Central Detector entering the Collision Hall at B0.

Two weeks ago, the Detector was moved for the first time to check out the cable-mover, an intricate conveyor belt comprised of independently-moving links meant to carry the Detector's web of electrical and computer cables through a 1-foot opening between the top of the shielding door and the entry opening. "We moved the Detector 12 feet toward the Collision Hall, and then back 9 feet. That test was very gratifying," Grimson noted. "Everything worked smoothly, no problems."



Choreographer's Showcase Prime Attraction at Fermilab

Fermilab's Choreographers' Showcase each year features several of the brightest stars on Chicago's dance horizon. On Saturday, September 28, 1985, at 8 p.m., five of Chicago's most exceptional dance troupes will present a dynamic evening of ballet, ethnic, and modern dance in Ramsey Auditorium.

Pascual Olivera and Angela del Moral's return to Fermilab will undoubtedly be greeted with "olés." This colorful husband and wife team will capture the drama, humor, and excitement of flamenco and Spanish folk dancing.

The energetic and rhythmic traditional dance of West Africa will be performed by the Muntu Dance Theatre. Under the artistic direction of Abdoulaye Camara, who is former director of the National Ballet of Senegal, the Muntu dancers and drummers will perform two authentic African dances.



The Muntu Dance Theatre

A former principal dancer with the Pittsburgh Ballet Theatre and Hubbard Steet Dance Company, Ricardo Moyano has recently formed his own troupe, the Artisan Dance Company. In the Showcase, Mr. Moyano will perform an expressive modern solo, "Getting Out," and he and his company will perform a classical ballet selection.

David Puszciewicz is a former member of six of Chicago's best-known dance companies and has performed in musical theater as well. He has recently opened his own studio and formed the David Pusz Dance Company. At Fermilab, he and Gigi Buffington, a former featured dancer with Gus Giordano, will perform the modern work, "Just Affairs."

Larry Long is co-founder and Director of the Ruth Page Foundation School of Dance. His credit include choreographing for the Lyric Opera Ballet and Chicago Ballet and serving as former Ballet Master for the National Ballet and Harkness Ballet. Mr. Long's professional dancers from the Ruth Page Foundation School will perform a "Tribute to Ruth Page," a jazzy piece reminiscent of "Frankie and Johnny."

This popular evening of dance is produced for Fermilab by the Ballet Guild of Chicago; admission is \$6. Tickets are available at the Information Desk in the Atrium of Wilson Hall, ext. 3353, between the hours of 10 a.m. and noon, and 1 p.m. and 4 p.m.

—Jane Green

Einstein's Other Formula. If A equals success, then the formula is $A=X+Y+Z$. X is work. Y is play. Z is keep your mouth shut.

(Albert Einstein defining success, news summaries of April 19, 1955. From *The Official Rules*.)

... "CDF" cont'd from pg 1.

On Thursday and Friday, the positioned Detector was powered up to ensure all components worked inside the Collision Hall, and CDF computers were brought up again. Roy Schwitters, CDF Co-Manager together with Alvin Tollestrup, characterized these computer studies as "exercising the system. We send signals through the channels to the Detector and make other spot tests. We've been doing this for three weeks now, around the clock, making sure that wire 23 is channel 23 and not channel 32. And we're constantly developing programs that enable us to make sure everything's working; every time you do that, you learn something new."

Current plans call for in-place tests of the Central Detector right up to the "hard shut-down" scheduled for the beginning of October. "It's looking really good," said Schwitters, "everything looks great, the mood is upbeat all across the Lab. This move is the symbolic capping of five years of building, and it puts us in position for a 3- or 4-month run at 1.6 TeV a year from now, when we can do some hard physics. People should really stay tuned for the next couple of weeks."



Users Center: A Great Place to Gather, and Getting Better

A great place to relax after a hectic day at the office, or to unwind with friends and co-workers, the **Users Center**, located at 10 Che-Che Pinqua in the Village, offers a "homey" atmosphere to employees and visitors alike.

The lounge contains comfortable couches, large chairs, and a fireplace for those cold Illinois winter evenings. Snacks available in the Users Center lounge include pizza, sandwiches, nachos, hot dogs, and hot, fresh, free popcorn.

The music room houses a grand piano, and is an ideal place for you to bring your musical instruments for practice.

When the sporting urge hits you, the game room includes pool tables, a ping-pong table, a shuffle board, and darts. (Children are welcome to use the game room if accompanied by a person over 16 years of age.)

Other games available at the Users Center include Trivial Pursuit, Scrabble, Backgammon, chess, a Cribbage board, Pinochle, and playing cards. The lounge has also been known to hold a few spontaneous games of charades.

The Users Center will be undergoing quite a few changes in the coming months. "Stop by and say hello," said Etta "E.T." Hill of the Users Center. "Come see it now, because soon you won't recognize it!"

Some of the planned changes are:

-- A garden cafe adjacent to the new entrance to the Users Center. The new entrance will be a few feet east of the current entrance.

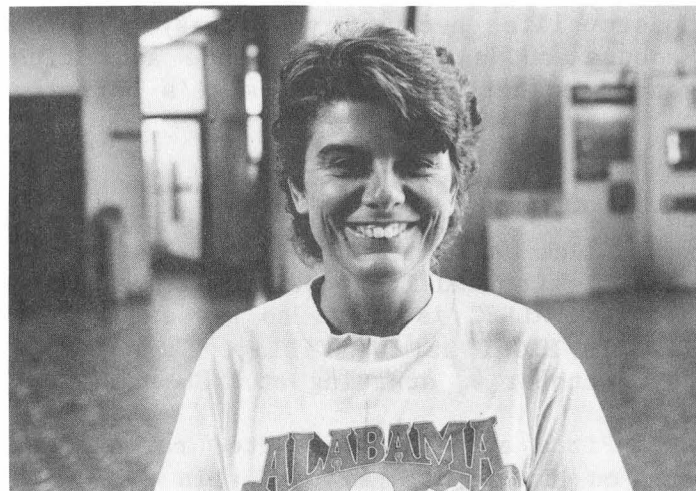
-- A new library room (supplied with books donated by the Fermilab community) intended for quiet conversation and reading.

-- A new TV room, with a big-screen TV, great for Monday Night Football and Saturday night movies! This room and the music room are ideal for experimental group meetings.

-- The existing restrooms will be completely rebuilt, and a restroom for the handicapped will be added.

Phased construction will begin sometime in October and should be finished by mid-December. The Users Center will be open for regular business for the most part during this time period.

Outside activities located near the Users Center are Bocci Ball and horseshoes.



Etta "E.T." Hill, bartender in the Fermilab Users Center.

An area behind the Users Center is frozen for ice skating during the winter months.

Marilyn Paul, head of the Activities Office, noted that "The Users Center is now open from 5 p.m. to 12 p.m. Monday thru Friday, and from 7 p.m. to 12 p.m. on Saturday."

—S. Winchester

Next: The Atrium Reception Desk

THE BRUISE BROTHERS ARE HERE!
See page 4 for details.

DON'T FORGET: LAB-WIDE END-OF-RUN/HAPPY FISCAL YEAR PARTY. Friday, September 27, 3:00 p.m. to 6:00 p.m., in front of Wilson Hall/Atrium; food, drinks, music, surprises!!!!

Donsen's Law. The specialist learns more and more about less and less until, finally, he knows everything about nothing; whereas the generalist learns less and less about more and more until, finally, he knows nothing about everything. (From *The Official Rules.*)

Bruise Brothers to Highlight NALREC "Lucky Fifties Night"

Hey there, you with the stars in your eyes. You say you're tired of heat, and all your clothes smell like barbecue sauce? And your Friday nights are empty because you've seen every "Miami Vice" rerun twice? And you want to get out of the house but you can't think of any place to go that you haven't already been six times? And you're having a hard time with modern life because you always thought Madonna was a religious statue and Prince was a spaghetti? Is that what's bothering you, Sport?

Well, wop-bop-a-lu-bop-a-lop-bam-boom, pull on your engineer boots and slick back your duck-tail haircut. Dry-clean that poodle skirt and iron your Peter Pan collar because NALREC is about to present a **LUCKY FIFTIES NIGHT** at the Village Barn on Friday, October 4, starting at 5:30 p.m.

Pizza and other assorted refreshments are on the menu, as the main Barn area rocks to a D.J. spinning the latest platters, like "Rock Around the Clock" and "Heartbreak Hotel." Fifties attire is encouraged, but not mandatory, you dig?

When the jitterbugging becomes too intense, man, you can drop downstairs into the Barn basement for an instant trip to Las Vegas, where the blackjack cards are dealt, the dice roll, the wheel of fortune spins, and the action never stops.



Pictured above are the NALREC members who will be bringing you "Lucky Fifties Night." Left to right, they are George Davidson (Entertainment); Bob Shovan (Las Vegas Games); Nancy Shanahan (Traffic Control); Jane Pesetski (Food); Jesse Guerra (Co-Chairman); Lucy Reuter (Publicity); and Dominick Carullo (Chairman); not shown: Sharon Koteles (Scheduling).

The '50s wouldn't be the '50s without a solid shot of Rhythm & Blues: The evening's highlight will be an appearance by the **Bruise Brothers**, doing their impression of the Blues Brothers doing their impression of all the great R&B classics.

Questions? No problem. Contact Lucy Reuter at ext. 4624, or George Davidson at ext. 3307.



Insurance Information Available Now

The Benefits Office reminds all employees that the time has come to choose the medical insurance plan they wish to enroll in for the coming fiscal year.

Fermilab offers employees a choice of several plans, and that choice is about to become even greater as two new Health Maintenance Organizations (HMO) join the existing three HMOs and the indemnity group medical insurance plan administered by Connecticut General Life Insurance Company.

The traditional indemnity group plan offers employees insured medical coverage at the physician/hospital of their choice. HMOs, on the other hand, provide insured coverage at specified, or "primary care," physicians at specific facilities within each HMO's service area. Out-of-area coverage is also provided, but is usually limited to emergency care.

Fermilab's payment toward HMO coverage is the same per year per employee as toward the group indemnity plan. An employee electing one of the HMO options may be required to contribute more toward his or her payment than if they elect for group indemnity.

If you did not attend one of the all-employee meetings on medical coverage held last week, please contact the Benefits Office, ext. 3395, for further information and a schedule of comparative costs.

Employees are reminded that their elected health care plan remains in effect for one year, until the next enrollment period.



Video News Pictures Lab, Scans Distribution Changes

It's Monday morning. Henry makes his way out of his car, up the steps, and through the front doors. He directs himself in a slow manner toward the elevators; he hesitates, stops, then turns to a familiar voice, his own. Over in the corner of the Atrium is a television monitor with an extreme close-up of - you guessed it - Henry. He is pictured sitting at his desk, talking about his work.

For a couple of seconds he feels total embarrassment. He moves closer to the monitor. "Um - I don't sound bad," he tells himself. "As a matter of fact, I don't look that bad! Well, on second thought, I better not look too close." The elevator bings, Henry strides quickly towards it on his way to another day at his job.

Henry just experienced what is sometimes called a media exposure blush. This phenomenon is usually pleasant and sometimes flattering. Video News has provided this opportunity to employees over 150 times in its two year history at Fermilab.

Video News is an in-house video newsletter produced once a month and played on various televisions throughout the Lab. This employee communications program is available on the Laboratory Channel 10 (soon to be Channel 9, 8 hours a day). For now, the program is cable-cast at noon and again at 3 p.m., five days a week. On-demand playback is also available in the Atrium of Wilson Hall, in the lobby of the Industrial Center, on the Users Center large-screen tv, and at the Research Division Operations Center.

It takes about two weeks to put together one Video News edition. An edition usually contains 50% technical and 50% cultural or non-technical stories. The emphasis is always on the people who make or contribute to the stories.

One question that is asked frequently is, "Who is that narrator. Whose voice is that?" The narrator is Bob Sauer. He is a professional narrator from the area. Coincidentally, he once worked at Fermilab as a security guard.

When a story is started, there is a central theme agreed upon. Very often over the course of interviewing and shooting, the stories turn out to be something completely different. For example, two years ago when the Lab took delivery of add-

itional VAX computers, the initial theme was: why were these boxes being craned up to the 7th floor windows? After talking with Al Brenner, it became clear that the real theme was: what are the objectives of the Fermilab Computing Department and what is being done to meet these objectives? If you don't recall this story and would like to see it, check with the Library, WH 3E; look for edition 15, story 2. The Library has copies of past Video News from edition 10 to the present.

Over the past five years, more and more large companies and organizations are developing Video News-type programs for employee communications. It seems that the cost and communication effectiveness is well worth the effort, according to Tom Thompson, author of *Organizational TV News*.

Video News will institute some changes in its distribution starting this fall. These actions are on a temporary basis, but should help with the problem of access to the programs:

- Have available, on a two-day check-out basis, several 1/2-in., VHS format copies of Video News. Tapes will be checked out from Fred Ullrich, 15SE, WH.

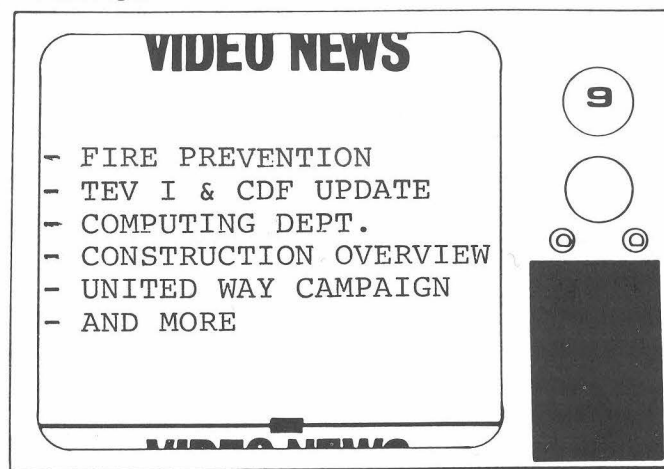
- Noontime Video News in Ramsey Auditorium on the large screen. This will be presented three times during the first week of each month. This will start once a newly purchased projector arrives.

- Coming stories will be announced in Ferminews. Watch for it.

If you have something that should be on Video News, call 4364 or write Fred Ullrich, MS 124.

—Fred Ullrich

Next On





Congratulations To ...

[REDACTED]

[REDACTED]

"King of Hearts" Comes to Lab

On Friday, September 27, at 8 p.m., the Fermilab International Film Society will present "a hilarious comedy classic," **King of Hearts**, in Ramsey Auditorium.

Alan Bates plays a Scottish soldier sent to disarm a bomb in a small, French town at the end of World War I. The only remaining inhabitants of the town are the inmates of the local insane asylum, who embrace Bates as their king. Admission to the film is \$2 for adults, and 50¢ for children.

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"Why does it seem like there are so many more birth announcements in **FermiNews** this year, than in all the other years combined?" We get asked this question so often, the staff of **FermiNews** has decided to let everyone in on the answer.

In past years, the only way we found out about Fermilab babies was through word-of-mouth. Now we have Chris Randall of **Benefits**.

Chris provides us with the names of employees who have recently found themselves holding a "bundle of joy." We contact the proud parents, offering our congratulations in person as well as in **FermiNews**.

A grand total of 42 birth announcements have appeared in **FermiNews**, including those in this issue, since this year's first issue (coincidentally, nine months ago) on January 24, 1985.

—S. Winchester