

The Village Courier



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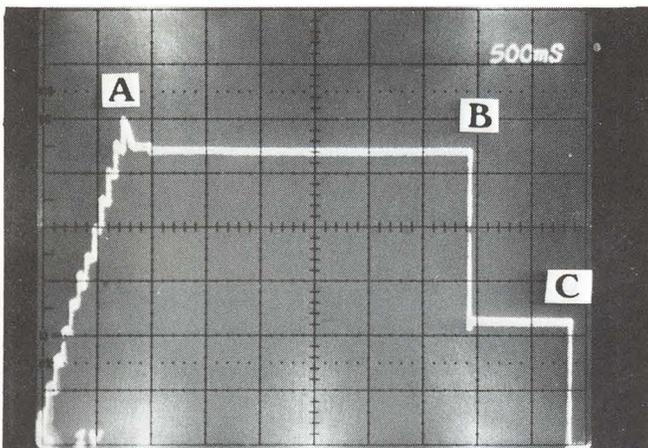
March 17, 1977

DOUBLE PULSE TEST COMPLETED

A new mode of extracting beam from the Main Ring was given a full-scale operational test on Friday, March 4. It was an exercise to demonstrate the possibility of taking two neutrino experiment pictures in the 15-ft. Bubble Chamber on each accelerator cycle, with the chamber filled with a heavy neon-hydrogen mixture. This mode would substantially increase the picture output of the chamber. It is, therefore, of great interest to the Laboratory's program scheduling as well as to experimenters using the chamber.

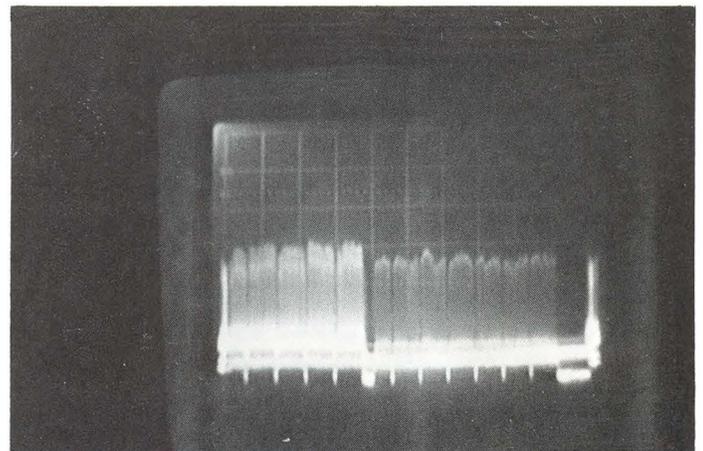
The new approach has been under discussion for some time. Tests of various component systems had been made over the preceding weeks. The focusing horn on the Neutrino Line was tested in the two-pulse mode. The 15-ft. Chamber was checked for the capability of getting clear pictures on two expansions of the chamber less than one second apart. The Switchyard Group developed hardware for removing the beam from one-half of the Main Ring's four-mile circumference with one pulse of the fast extraction magnet and the other half with a second pulse at the end of the cycle.

For the test run on March 4, Main Accelerator operations crews and Neutrino Line operations crews brought it all together. Two oscilloscope pictures recorded in the Main Control Room during the test give a good idea of what would happen in a run with this new operation method.



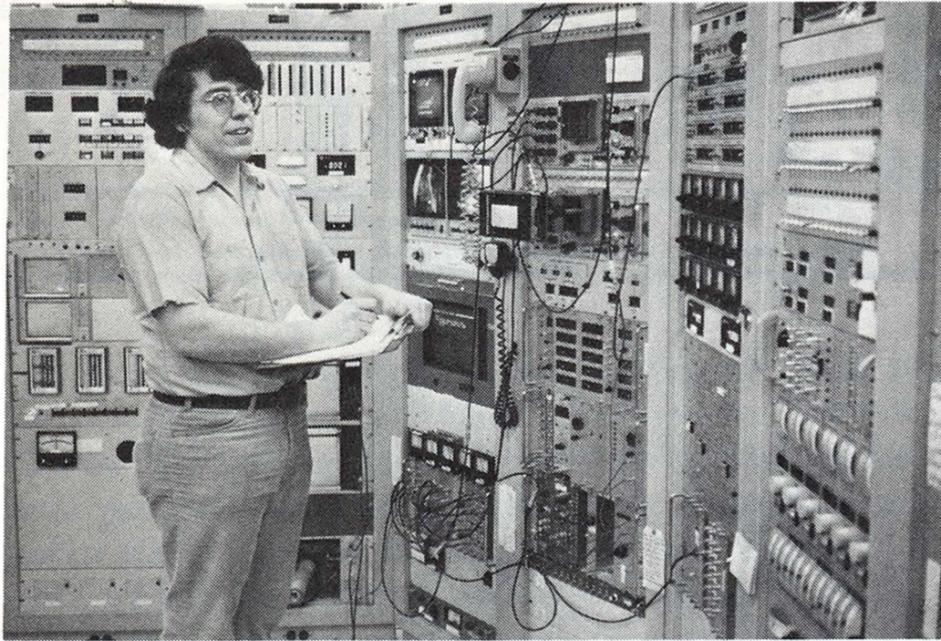
At left, the familiar staircase of the beam intensity trace shows the beam leaving the Main Ring in two sudden batches. The "staircase" pattern at A shows the stepwise increase in intensity as twelve Booster batches are loaded one after the other into the Main Ring. During acceleration to 400 BeV the intensity remains at its maximum value. At time B the intensity suddenly decreases as seven of the Booster batches are extracted. A second later at time C the remaining five batches are extracted.

Pictured here are twelve batches from the Booster Accelerator circulating in the Main Ring, with a little and a big gap between groups of five and seven. The seven batches on the right appear fainter because they were the first batches ejected, experiencing the larger first drop in Main Ring beam intensity. The remaining five were "kicked out" about a second later, making the somewhat smaller second pulse. The gaps between the two groups provide the brief interval required for the kicker magnet to reach full field and the time to return to zero field.

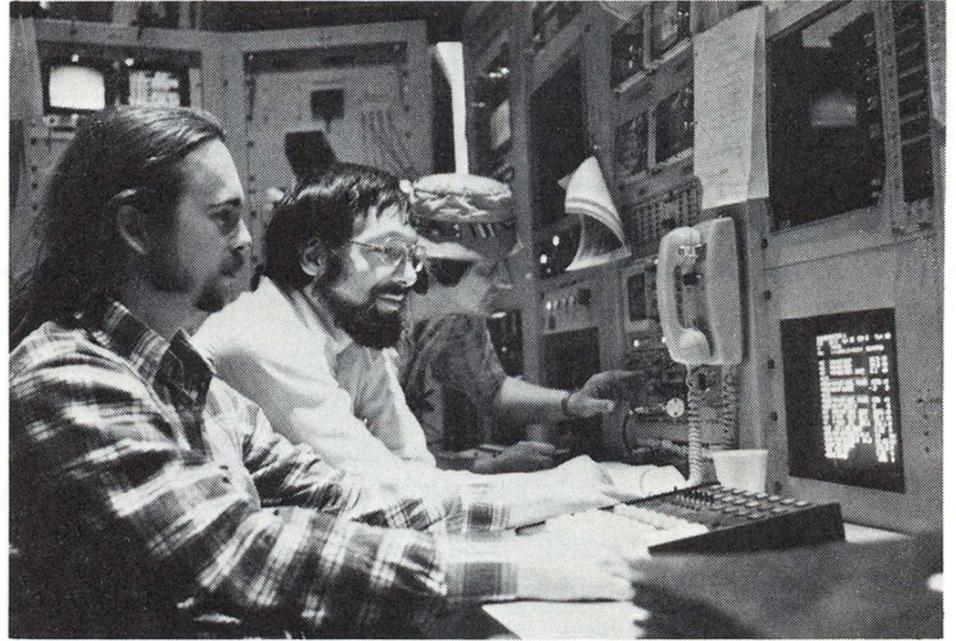


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DOUBLE PULSE TEST COMPLETED (Continued)



...J. Woodworth checks controls in Bubble Chamber control room...



...At accelerator switchyard controls L-R are: J. McCarthy, D. Kindelberger and B. Oberholtzer...

These beam gymnastics were put together with the horn focusing system on the Neutrino Line and with the 15-ft. chamber operating for a six-hour period on March 4. About two thousand pictures were taken. The results were satisfactory, according to George Mulholland, who heads the 15-ft. Chamber group. "We understand the results of the test. The chamber physically performed very well. Whatever reservations we have about the pictures will be resolved when we raise the pressure about five pounds."

Jim MacLachlan of the Operations Section noted that the tests went rather smoothly for a first try. "There is every reason to think that routine use could be made of double-pulsed fast extraction."

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CHESS TEAM RESULTS

In Chicago Industrial League play, Fermi chessmen were topped by International Harvester 3½-1½ and tied College of DuPage 3-3. Matches are open to the public at no charge. Spectators and new players are welcomed. Contact John Sloan (3330) for information.

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BRAD BENNETT WRITES

Bradley F. Bennett, executive vice president of Universities Research Association, was honored at a retirement reception Feb. 24 at Fermilab. He sends the following message to his friends at Fermilab:

"Dear Friends at Fermilab,

"Ginny and I want to thank you with all our hearts for the wonderful sendoff you gave us. The gifts and all the work to cover the tables with goodies and the kind words were greatly appreciated. Even more we appreciated so many of you taking the time to come up and see us off.

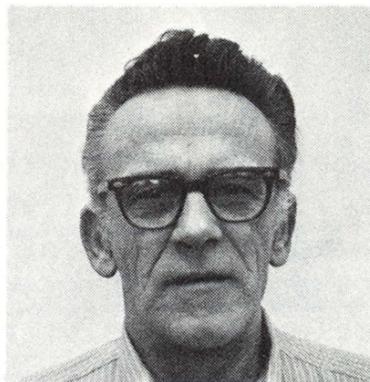
"We both feel we have made many lasting friendships at the Lab, and I especially appreciate all that so many of you have done for me and for URA during the years we have worked together. You're a stimulating bunch and you've done great things. I'm looking forward to your encore.

"Ginny and I send best wishes to all of you. And thanks loads for everything. Come and see us if you're in Washington, and we'll hope to see you at Fermilab too.

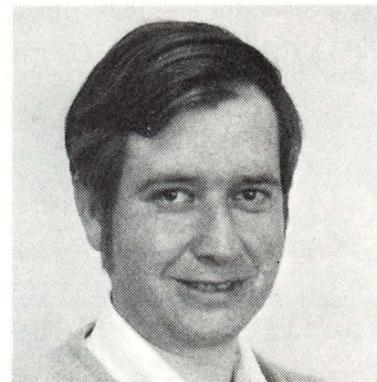
Very sincerely,
BRAD BENNETT

CREDIT UNION ANNUAL MEETING HELD

Ralph Wagner, Personnel Services and Larry Sobocki, Accelerator Support, were among 15 directors elected at the Argonne Credit Union Annual Meeting Wednesday. Wagner and Sobocki were incumbents. President R.A. Kucera reported a trend that started in 1975--phenomenal growth--continued during 1976. For the second consecutive year, shares and loans grew over \$1 million. Earnings kept pace, membership increased by 167. Although loan demand was high, share surpluses exist and the thrust of 1977 activities will be to stimulate more loan activities. Special credit committees have been set up at Fermilab and Argonne-West to service loan customers. Credit committee members at Fermilab are Wagner, Sobocki and John Colson.



L. Sobocki



R. Wagner

John Chonko, treasurer/manager, reported a \$1.1 million increase in loans, an increase of 20 percent for the year. Common shares increased \$1.9 million in 1976 and over 51 percent in the last two years. Expenses increased about 14 percent, mainly for salaries and payroll plus overtime resulting from a data processing conversion. Net loan losses totaled \$14,350 in 1976. Another \$18,500 was scheduled for writeoff on Jan. 1, 1977. Anticipated recovery on these is about \$6,000.

Other reports by supervisors, credit and publicity committees plus the financial statement and statistics are found in the published annual report booklet, available at the Credit Union Office, CL-1W.

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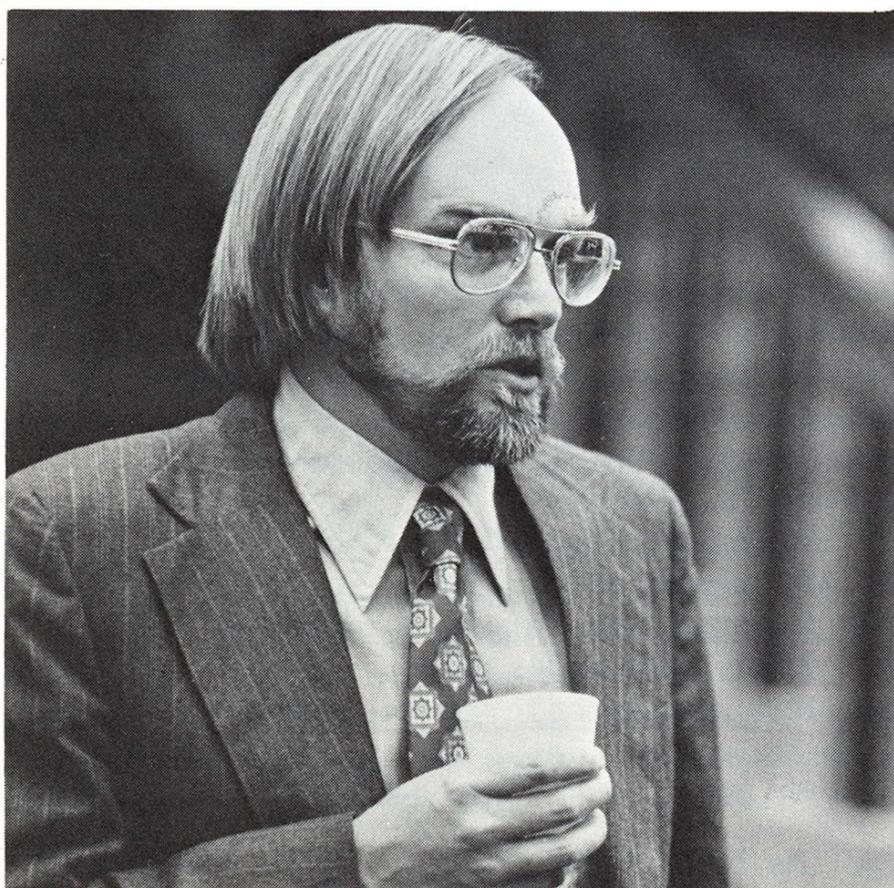
ATTENTION GOLFERS

The 1977 season is fast approaching. There will be two nights a week of league play, starting on Tuesday, April 26 and Thursday, April 28. Each night of league playing will be at the Country Lakes Golf Course on Rt. 59, with the first tee time at 5:15 p.m.

Sign up will be on a first-come, first-serve basis for all players. Entry fee into the golf league will be \$6. Sign up now and pay before April 22. Green fees will be \$3.50.

To sign up, call Ellery Cook, Ext. 4418.

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Many lives were saved by the elaborate program for predicting earthquakes in China when the February, 1975 quake struck there, Robert M. Hamilton, Chief of U.S. Earthquake Studies, told a Fermilab lecture audience March 4. "It was an extremely significant milestone in earthquake studies," he said. Other studies in the past 20 years have revealed, for example, that the Atlantic Ocean floor is not flat, but contains a mountain range running roughly parallel to the South American continent. We also learned that the rocks on the ocean floor include magnetic stripes, he said. There is a globe-encircling system of seismicity, he explained, and the occurrence of earthquakes follow that system. The signal for impending quakes are like a yardstick bending; shortly before the failure you hear the bending.

DANCE SERIES OPENS

A performance by Ballet Hispanico of New York on Sunday, March 27, will launch a series of three dance concerts in the Fermilab Auditorium Arts Series. Ballet Hispanico will be featured at 7:30 p.m. Tickets at \$3 each are available from the guest office, CL-1W (Ext. 3440). Advance payment is required for tickets to be held at the door. All seats are reserved. Laboratory people are urged to obtain tickets early as general publicity will be released this week.

According to reviewers, Ballet Hispanico is young, talented and exciting to watch. Elegantly costumed, they present contemporary choreography that preserves Spanish flavor, influence and traditional Latin American dance forms. The group dances difficult and demanding pieces with security and elan, a Los Angeles Times critic said. The group will arrive at Fermilab after a three-day residency and dance recital at the University of Illinois, Champaign.

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CIRCUS DAYS

NALREC will sponsor a bus trip to the Medina Shrine circus at Chicago on Sunday, March 20. The bus will leave at 2:15 p.m. for the 3:30 p.m. performance. A \$4 ticket fee covers transportation and admission. A limited number of tickets is available. Call Mary Luba (Ext. 3201) for yours.

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LOOKING AHEAD

March 31 is the deadline for receipt of reservations for summer on-site housing. According to the Housing Office, housing assignments for summer experimenters will be made early in April. Assignments will be based on the expected running schedule and responses will be mailed by April 15. Starting dates for summer occupancy will begin during the week of May 29.

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BICYCLE NOTICE

All bikes stored in the "catacombs" under Central Laboratory's entrance or near ground floor west elevators should be claimed by owners immediately. After March 20, they will be placed in the rental pool. Please claim your bike as soon as possible.

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..(L-R) D. Smith, D. Sauer, G. Plant, G. Doyle make final plans for Cleanup Day..

CLEANUP DAY COMING

No fooling, April 1 will be cleanup day at Fermilab. This is everyone's chance to clean out their area and be assured that reusable, recycleable or waste materials will be removed. Site Services will coordinate the program under the direction of Dave Sauer. The following areas will be serviced.

Village - Call George Doyle, ext. 3421 for arrangements.

Central Laboratory - Call Gene Plant, ext. 3824, for assistance.

Research/Accelerator - Don Smith, ext. 3492, will have details. Call them if you have material you want removed.