



QUASI - PERIODICAL INTERNAL NEWSLETTER

APRIL 1966

BEAM TESTS TO TWO-THIRDS POINT TO BEGIN

Before the end of this month, nocturnal tests of the accelerator will begin with a 3-BeV electron beam run down the first two-thirds of the machine. The energy has been set at only 3 BeV because the small magnet at the two-thirds point cannot deflect a higher-energy beam. Therefore, power will be supplied to the beam in only four of the 30 sectors at a time, letting the beam drift through the sectors not turned on. Different sets of four sectors will be activated successively, so that by the time the tests are completed, all sectors up to the two-thirds point will have been turned on. The primary purpose of the tests is to measure the per sector energy, to see if the energy contributed by one sector is the same as that contributed by every other sector.

ALIGNMENT OF THE GIRDER UNDERWAY

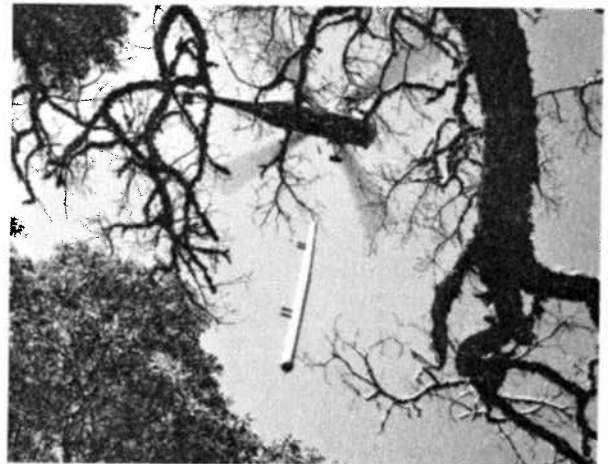
The vacuum in the 10,000-foot, 24-inch-diameter aluminum support girder is adequate to start aligning the machine using the laser light beam. Tests a few weeks ago transmitted a laser beam down the girder's two-mile length and an alignment test pattern was obtained. Actual alignment has been performed on Sectors 26 through 30. Before the end of March, alignment of Sector 1 began; alignment will proceed down the length of the machine until the entire support girder is aligned to within the specified tolerance of one millimeter.

PRELIMINARY BEAM CONFIGURATION TESTS PERFORMED

The accelerator was designed to permit several different beams with different characteristics to be accelerated simultaneously by interlacing them. This way concurrent experiments requiring different types of beams can be performed. To see if we could do this, beam tests were run on the first 40 feet of the accelerator. Four interlaced beam configurations were achieved, resulting in the acceleration of two beams of different intensities and different pulse lengths.

UNIQUE HELICOPTER OPERATION INSTALLS POWER POLES

Last week a helicopter flew back and forth from the west end of the accelerator to the hills in back of SLAC, carting 30 of the slim tubular power poles which will bring power to SLAC. A helicopter was used to set the poles in order that the trees and foliage on the hills remain as unperturbed as possible. This precise operation required that the helicopter first pick up the bottom half of a pole and drop it in place, then return to pick up the top half, fly back to the pole station, and hover there until the two halves could be joined. This part of the operation has now been completed, but the helicopter is scheduled to return in a few weeks to string the actual cables.



This is the eighth issue of what appears every once in a while from the Technical Information Office whenever developments at SLAC warrant. The material herein is for your information and not for general publicationEditor

CONSTRUCTION NEARING COMPLETION

With the installation of the positron source girders recently completed, all final girders are now in place and the accelerator is installed. The Beam Switchyard construction is completed. Installation has been begun of components in the Beam Switchyard; this job, one of the most complex SLAC has undertaken, is now at its peak of activity.

Construction of the two Target Buildings is now 97% complete. The Cryogenics Building is 75% constructed. The final part of the landscaping job, plantings along the Klystron Gallery, is 50% completed.



SLAC welcomes Mr. William Pedersen, who joined the staff on April 1 as our new Personnel Director.

WITHHOLDING CHANGE SOON TO BE IN EFFECT

Every employee will soon be receiving a communique from the Accounting Department regarding the new withholding schedule which goes into effect May 1. (The taxes themselves are not being changed, just the amounts withheld from paychecks.) The purpose of the new schedule is to make more equitable the amount withheld so that fewer large April 15 payments will have to be made in future. What's new about the schedule is that withholding rates are now scaled from 14% to 30%, replacing the previous single withholding rate of 14%. Because separate withholding tables are provided for married and unmarried employees, everyone must submit a new exemption form indicating his marital status. The forms and more information about the new schedule will be sent out early in April, and must be returned by the end of the month.

TOURS OF SITE STILL INCREASING

The Accelerator Housing is now closed off to visitors, as final cleaning of the girders is underway preparatory to the April beam tests. But, undaunted, visitors con-

tinue to tour the remainder of SLAC at the rate of about 2000 per month. Tours continue to be held almost every day, Monday through Saturday. Advance reservations are required; call extension 205 to reserve a time and date.

MUSEUM SHOW NEARING CLOSE

SLAC's exhibit of accelerator components at the Stanford Museum has turned out to be a record-breaking success. Almost 9000 people have gone to view the exhibit, which includes such items as a 40-foot girder connected to its klystron tube, an animated exhibit showing how electrons fill the accelerator, a working spark chamber, and several burnished copper components. The Museum show has been extended until April 10; if you have not yet had a chance to see the show, you're urged to go down. The Museum is open from 10-5 on weekdays and from 1-5 on Saturday and Sunday.

RECREATION PROGRAM IN FULL SWING

The SLAC Recreation Program has been set up to support staff participation in hobby groups, cultural activities, games and sports, and project-wide social activities. Already several groups have received support; these, and the person to contact if you wish to participate, are: Golf League (Glenn Tenney), Bridge Club (Gordon Ratliff), Softball Games (Bob Gex), Bowling League (Ed Mortenson), Music Recreation Group (John Gonzales), and Photography Club (Dale Horelick and Len Genova). Administrator of the Recreation Program is R. H. Moulton, to whom inquires and requests for funds should be directed. (Your "druthers," like the fund, should be modest.)

LIBRARY HOSTS ROTATING ART SHOW

The SLAC Library in the Central Lab has become a showplace for the works of area artists. Each exhibit in this rotating show is on display for 4-6 weeks. Presently, Lee Reeves, a Palo Alto photographer, is exhibiting photographic studies of people, scenery, and still life. On the agenda for future shows are photographs by Dave Walker and a display of linoleum block prints, serigraphs, and acrylics by Glenda Jones. Anyone on the SLAC staff who would like to display his work is urged to contact Glenda Jones in the Library. (The space available prohibits display of sculpture, ceramics, etc., but anything that can be hung on a wall is welcome.)

EDUCATIONAL BENEFITS FOR COLD WAR GI'S IN EFFECT

President Johnson has signed into law the first permanent GI Bill of Rights, which contains important educational benefits that may be of interest to people at SLAC. Eligible are veterans who have served more than 6 months active duty, any part of which occurred after January 1955. Benefits of \$100-\$150 per month are paid on the basis of one month of schooling for each month of active duty, up to a maximum of 36 months. To find out more detailed information about the benefits, eligible veterans should inquire at the nearest V.A. office.