

**AEC Plan for Keeping All Accelerators Operating**  
(in Millions of FY 73 Dollars)

|                          | FY 71 | FY 72 | FY 73 | FY 74 | FY 75 | FY 76 | FY 77 |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|
| Operating Expenses       |       |       |       |       |       |       |       |
| NAL                      | 10.1  | 13.3  | 19.2  | 28.0  | 34.0  | 40.0  | 43.0  |
| Base Lab Program         | 92.6  | 83.9  | 82.7  | 87.0  | 87.0  | 87.0  | 87.0  |
| Universities             | 27.6  | 25.0  | 24.5  | 28.0  | 32.0  | 34.0  | 35.0  |
| Total                    | 130.3 | 122.2 | 126.4 | 143.0 | 153.0 | 161.0 | 165.0 |
| Capital Equipment        | 17.3  | 24.4  | 25.5  | 35.0  | 29.0  | 24.0  | 24.0  |
| Accelerator Improvements | 4.0   | 3.6   | 2.0   | 4.0   | 4.0   | 5.0   | 6.0   |
| Construction             | 102.7 | 53.4  | 47.5  | 12.0  | 6.0   |       |       |
| New Projects             |       |       |       | 8.0   | 13.0  | 18.0  | 17.0  |
| Total Program            | 254.3 | 203.6 | 201.4 | 202.0 | 205.0 | 208.0 | 212.0 |

provided at the AGS and SLAC as a result of the completion of the AGS conversion and the SLAC storage ring. According to the report, "These actions would permit a cessation in the manpower erosion."

The report proposals are evidently viewed as very real by the AEC, since the FY 1973 proposed operating budget tallies closely with that in the report. There are, however other members of the scientific community who do not feel that the budget outlined in the report will do all the AEC hopes it will. Some are obviously concerned that keeping all labs except NAL at virtually the same level will lead to stagnation.

William Wallenmeyer, who is assistant director for the high-energy physics program at AEC and who directed the report, asserts that the program is still strong, but admits that claims that there isn't enough money for new projects and instrumentation at the labs "may well be true." Victor Weisskopf, who is chairman of the AEC High-Energy Physics Advisory Panel, which was consulted by the AEC during preparation of the report, says that the program is generally good, but that he too would like to see more money for new projects such as storage rings in the US program.

Other physicists are not so reserved in their criticism of the program proposed in the report. According to S. J. Lindenbaum of Brookhaven National Laboratory and the City College of New York Department of Physics, running the national labs under this funding scheme might be compared to asking a top athlete to play when he's 20 pounds underweight. "He'll be able to play," says Lindenbaum, "but you can't expect to get great performance from him."

In their request for the report, the Joint Committee directed the AEC to come up with a priority list of accelerators indicating the order in which they should be cut if the funds drop to a level that would require it. The list that the AEC came up with hedges the

point somewhat by providing a list with four entries to rate six accelerators:

1. National Accelerator Laboratory
2. Alternating Gradient Synchrotron and SLAC
3. Zero Gradient Synchrotron and the Bevatron
4. Cambridge Electron Accelerator.

According to Wallenmeyer, however, the program has come to a point where the six existing machines are needed for a well balanced program, and the report suggests that if the need arose, instead of cutting the lowest priority accelerator, funds should perhaps be shifted from one or more of the other sites.

—SMH

## Industrial internships program proposed by AIP

A National Program of Industrial Internships in Physics and Astronomy, financed jointly by the federal government and industry, has been proposed by the American Institute of Physics, based on its studies and those of the American Physical Society. Intended to give a boost to industrial R&D, the program would do much to help stimulate the expansion of the high-technology sector of the national economy, according to AIP director H. William Koch. The program would provide industrial research and development experience for about 475 physicists and astronomers. The proposal has been submitted to the National Science Foundation.

As proposed, the program would set up a number of one-year internship positions in industry with the possibility of renewing for one more year being extended to about one-half the participants. The program would be spread out over three years with 100 positions the first year, 250 new and 75 extended internships the second year, and 125 new and 125 renewals the last.

The federal government would allocate \$10 000 per year for each position as a stipend or salary contribution, and

the industry employing the interns would be required to provide additional funding at least equal to that amount. For interns continuing on for a second year the federal portion would be reduced to \$7500 with the employer expected to make up the difference.

According to the proposal, the program is intended not only to stimulate industrial R&D but also to provide employment support for physicists and astronomers. Also it is hoped that the experience they would gain in the program by working in an industrial setting would improve the likelihood of their finding future careers in applied research.

The program would be administered by AIP, and the awarding of the grants would be made by a committee of distinguished physicists and astronomers according to the requirements of the funding agency. A total amount of about \$6 500 000 in federal funds has been requested for the program.

## Stever

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ment, especially right after World War II. "I noted when I was at Carnegie Mellon more recently that when the first social scientist was added to PSAC, that was a great triumph for them—they'd finally made it."

"I think physics will continue to have a leading role. It's so fundamental that it forms an educational route for people who later go into adjacent fields of science and engineering. This happened in my career. And as a field of fundamental research, of course, physics is one of the leaders. I don't see any dismal picture emerging with respect to physics. Physics was very heavily affected by the dropoff in atomic energy and defense research, and the trauma from that impact won't disappear instantly. But I predict that it won't last too long."

"Do you think there should be a definite move to stop people from going into science?" we asked. Stever said, "No." He does not foresee a return to the golden years of a 15-20% growth rate per year, but he feels science will continue to grow in quality and in manpower.

**Traineeships.** "But NSF is cutting out graduate traineeships and has reduced fellowships. Isn't this an attempt to discourage students?" we objected. "As I look back to see what reasoning has prompted the change in graduate-student support, there seem to be two factors," Stever said. "One is a pressure, external to the science, to stop increasing our production rate to avoid increased unemployment. The second is the argument that the people who enter science shouldn't be given a special privilege by having their education paid for."