

PHYSICS IN GOVERNMENT

Atomic Energy Commission physical research budget rises \$23 million

AEC support of high-energy research will take the largest slice out of an approximate 10% increase in AEC's \$258.9 million physical-research budget for fiscal 1967. A more modest rise in the commission's medium-energy program will go largely for the proposed Los Alamos meson-physics facility. Other increases will support new research tools and more intensive operation of older facilities in the low-energy range, as well as chemistry and metallurgy studies. AEC did not raise by any appreciable amount its support of controlled thermonuclear research. Significantly, the Controlled Thermonuclear Research Review Panel, in its recent report to the Joint Congressional Committee and AEC, warned that the fusion program would "deteriorate rapidly to a secondary role if the present static budget of the AEC is continued" (see

PHYSICS TODAY, March 1966, page 60). Approximately 75% of the physical research program (see table below) is conducted at ten sites owned or operated for the commission.

AEC plant and capital-equipment costs for accelerators, in millions of dollars, include the following:

Argonne National Laboratory	
Low-energy accelerator	0.4
Zero-gradient synchrotron	2.0
Brookhaven National Laboratory	
Alternating grad. synchrotron	45.8
Accelerators and reactors	0.8
Lawrence Radiation Laboratory	1.6
Cambridge and Princeton machines	1.9
Stanford linear accelerator	0.4
Los Alamos meson facility	3.0

All are for machine improvements, modifications and conversions except the funds for design work on the Los Alamos meson-physics facility, which rose from \$1.2 to \$4.2 million.

AEC Physical Research Budgets, 1965-1967 (\$ millions)

Program	1965 (actual)	1966 (est.)	1967 (est.)
High-energy physics	87.1	97.9	109.8
Medium-energy physics	5.6	9.3	11.0
Low-energy physics	24.5	26.8	28.8
Math and computer research	5.2	5.9	6.4
Chemistry research	46.2	49.9	53.5
Metallurgical research	22.6	24.8	26.8
Controlled thermonuclear research	21.3	21.5	22.6

National Science Foundation budget request for 1967 up 9.4%

Big increases to support more basic-research personnel, more university computers, expanded national research centers and new and broader education programs have pushed the National Science Foundation's budget up to \$525 million for fiscal 1967. At the same time, significant cuts were recorded in the foundation's graduate facilities and undergraduate instructional equipment programs.

A major budget increase from \$160

million to \$185 million has been asked to provide 4015 basic-research grants for scientists and graduate students. NSF will raise Project Mohole funds from \$17.9 million to \$19.7 million and university computing facilities from \$9 million to \$12 million. In boosting national research center support from \$22.5 million to \$28.9 million, the foundation has allocated \$7 million for construction of the Kitt Peak 150-inch stellar telescope

and another \$10 million for the National Center for Atmospheric Research.

NSF is also expanding its fellow and trainee program to support 8798 students during 1967 and will raise the number of curricula-improvement grants from 68 to 80. Support for the institutional grant program (with grants in the \$30,000 range) will remain at the same \$14.5 million level as last year. It will, however, operate from a broader base which will benefit schools that have not previously received such support. In its science development program NSF will award 30 to 60 of these highly coveted grants, which range from \$100 000 to \$5 million.

Help for COPFIC schools? In 1967 the foundation hopes to inaugurate two new mechanisms of support for the smaller and weaker institutions of the country. The first program, College Science Improvement, will provide \$10 million in grants ranging from \$125 000 to \$225 000 to strengthen science primarily in 600 institutions that do not grant PhD's. "These institutions," says NSF, are confronted with the complex problem of maintaining quality science education in the face of extreme competition for qualified faculty and a major increase in the requirements of modern curricula equipment and facilities."

The other new program will use \$10 million for improvements in a single scientific department or specific science area within a school. Grants under the project, which is an adjunct of the Science Development Program, will range up to \$200 000 a year for two- or three-year periods.

"Both of these new programs," says William W. Watson of the Committee on Physics Faculties in Colleges, "and especially College Science Improvement, will probably help COPFIC schools in many respects." To what extent the programs will actually aid the 600 non-PhD-granting schools cannot be precisely known until NSF releases full program de-