

with minority group members. At the same session Julian Levi (University of Chicago) discussed "The Urban Condition—Critical Mass."

The employment situation was discussed at an AAPT session on Wednesday and was a frequent topic of conversation at the meeting. The AIP placement service was jammed with job seekers. 1347 persons registered for jobs (about 800 attended) and 101 employers participated. Last year 1285 job seekers registered and 167 employers participated.

Elections. Both APS and AAPT announced election results. The new vice-president-elect is Philip Morse, MIT professor-emeritus. Morse was a pioneer in operations research and has been active in theoretical physics, acoustics, teaching and writing. He was the first director of Brookhaven, directed the MIT Operations Research Center from 1953 to 1969 and the MIT Computing Center from 1955 to 1967.

Replacing Alvarez as president is Edward Purcell (Harvard); Robert Serber (Columbia) is the new vice-president. Elected to the council were



DONNALLY

Vernon Hughes (Yale) and Freeman Dyson (Institute for Advanced Study). Shirley Quimby, treasurer of the APS for 13 years, is retiring. Joseph Burton (Bell Telephone Laboratories), who has been deputy treasurer, is the new treasurer.

The new president-elect of the AAPT is Bailey L. Donnally, chairman of the physics department at Lake Forest College (Lake Forest, Illinois).



MORSE

Donnally was chairman of the AAPT Committee on Apparatus for Educational Institutions from 1966 to 1968. In research he has developed methods of making beams of polarized electrons, protons, deuterons and negative ions, and has done lifetime and polarization measurements. Robert N. Little (University of Texas, Austin) is the new president, replacing Ronald Geballe (University of Washington). —CBL

Nixon Boosts Research Budget 5%; NSF Gets \$49 Million More

In President Nixon's budget, obligations for research in the fiscal year 1971 are up. Because obligations for development are down, the total for research and development is down. The cut is from an estimated \$16 400 million for fiscal 1970 to \$15 800 million in 1971. But research obligations have been increased from \$5500 million in 1970 to \$5800 million in 1971. (For detailed information see tables.)

Total federal obligations for R & D in universities have increased by \$114

million for a total of \$1532 million. This increase is partially accounted for in National Science Foundation and Health, Education and Welfare budgets and is designed to offset the decline of university-research support by the Department of Defense, the National Aeronautics and Space Administration and the Atomic Energy Commission.

NSF received one of the largest increases, \$49 million, for a total budget of \$512 million in 1971. The increase will handle some previous DOD programs and begin programs on the

problems of society. Arecibo Observatory would receive \$5.8 million, of which \$3.8 million is for resurfacing the antenna (rejected last year by Congress).

AEC research expenditure is \$418 million, of which \$274 million is for physical research. The Princeton-Pennsylvania Accelerator will soon be shut down to release more money for research. Construction of the Batavia 200-GeV accelerator will continue but with less money than in 1970: Obligations are \$65 million and expenditures \$68 million as compared with

R & D in Colleges and Universities

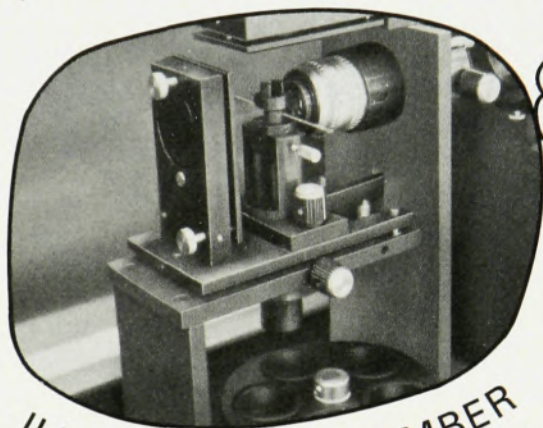
	FY 1969 (Actual)	FY 1970 (Estimate)	FY 1971 (Estimate)
	(millions of dollars)		
NSF	210	225	270
DOD	247	223	220
AEC	101	100	97
NASA	128	110	88
HEW, Agriculture, other	785	760	857
Total	1471	1418	1532

NSF Research Project Support

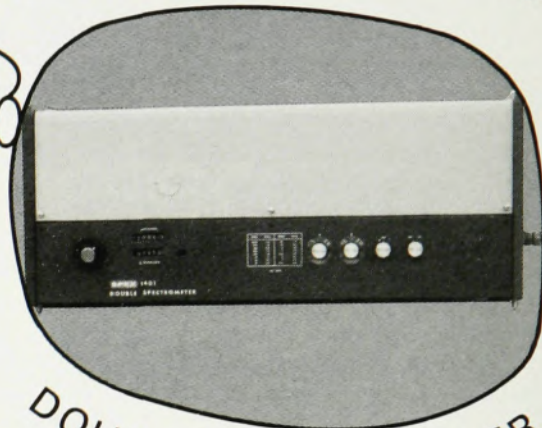
	FY 1969 (Actual)	FY 1970 (Estimate)	FY 1971 (Estimate)
	(millions of dollars)		
Atmospheric Sciences	8.2	8.1	9.8
Physics	30.3	27.7	31.4
Astronomy	6.8	6.0	6.6
Other	130.7	133.2	142.2
Total	176.0	175.0	190.0

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STATE AND SOCIETY

\$70 million and \$35 million, respectively, in 1970. The Plowshare program is being reduced and redirected in 1971.

The NASA budget has decreased by \$600 million, mainly because the

Apollo lunar-landing program is over and because the Saturn V launch-vehicle and spacecraft production is to be suspended. Research is up from an estimated \$1445 million in 1970 to \$1461 million in 1971.

Total DOD obligations for R & D are cut by \$148 million from the 1970

NSF National and Special Research Programs

	FY 1969 (Actual)	FY 1970 (Estimate)	FY 1971 (Estimate)
	(millions of dollars)		
Interdisciplinary Research on Problems of Our Society	0	6.0	13.0
International Biological Program	1.2	4.0	7.0
Global Atmospheric Res. Program	0.6	1.5	2.0
Weather Modification	2.4	2.5	3.0
Earthquake Engineering	0	0	2.0
Int'l. Decade of Ocean Exploration	0	0	15.0
Ocean Sediment Coring Program	2.4	6.5	8.0
Arctic Research Program	0	0	2.0
US Antarctic Research Programs	6.9	7.0	7.0
Total	13.5	27.5	59.0

AEC Physical Research

	FY 1969 (Actual)	FY 1970 (Estimate)	FY 1971 (Estimate)
	(millions of dollars)		
High-energy physics	119	121	119
Medium-energy physics	11	13	13
Low-energy physics	30	29	28
Mathematics and computer research	6	6	5
Chemistry research	54	54	52
Metallurgy and materials research	28	28	27
Controlled thermonuclear research	27	28	30
Total	274	278	274

NASA Programs

	FY 1969 (Actual)	FY 1970 (Estimate)	FY 1971 (Estimate)
	(millions of dollars)		
Lunar exploration	2018	1674	947
Planetary exploration	110	178	158
Astronomy	111	98	93
Space physics	62	52	57
Other*	316	533	730
Total (support not included)	2617	2535	1985

*Includes earth-orbital manned space flight, earth surveys, meteorology, communications and navigation

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level of \$7910 million. Research obligations are up in 1971 by \$68 million for a total of \$1493 million. —TJ

All AIP Journals Offered on Microfilm, Some for First Time

All journals published by the American Institute of Physics are now on microfilm. Many of the AIP and Society periodicals, including all the Soviet translation journals, are available in this medium for the first time. They are offered on positive or negative film. A catalog describing the program with titles and prices is being mailed to several thousand libraries and research organizations in the US and abroad. Send orders and inquiries to: Department B/N, American Institute of Physics, 335 East 45th St, New York, N.Y. 10017.

Billings Named President-Elect Of OSA; New Directors at Large

The Optical Society of America chose Bruce H. Billings as president-elect for 1970 and three new directors at large, who will serve three-year terms. Billings is US commissioner of the Joint Commission on Rural Reconstruction and special assistant to the US Ambassador for Science and Technology, Taiwan. He succeeds W. Lewis Hyde, provost of New York University at University Heights, who is OSA president.

Before becoming commissioner, Billings was vice-president and general manager for Laboratory Operations of the Aerospace Corp during



BILLINGS

1963-68. He was also associate director of defense research and engineering for the Department of Defense from 1959 to 1961, and had served as an OSA director at large.

The new directors at large are Stephen M. MacNeille, vice-president and director of research of the American Optical Corp; Brian J. Thompson, professor and director of the Institute of Optics at the University of Rochester; and Dudley Williams, Regents' Professor of Physics at Kansas State University.

Queen's University Establishes Program Library for Physics

Physics computer programs, written in machine-independent language, are being assembled in a library at Queen's University, Belfast. Detailed descriptions are given in a new journal, *Computer Physics Communications*, published by North-Holland. Information can be obtained from P. G. Burke at the university.

IN BRIEF

Translations of a new Russian journal, *Theoretical and Mathematical Physics*, are available from Plenum Publishing through its Consultants Bureau at \$125 a year. Quantum field theory, elementary-particle theory, fundamental problems of nuclear physics, the many-body problem, statistical physics and nonrelativistic quantum mechanics will be covered.

A new \$2.2 million Space Science Center has been dedicated at the University of Rochester. The interdisciplinary program was established in 1962.

Pennsylvania State University opened its new Materials Research Laboratory 13 Nov. Rustum Roy is director.

A symposium on the future of the atmosphere marked the opening of the \$4.5-million Meteorology and Space Science Building at the University of Wisconsin.

High Voltage Engineering will build and install an 11-MeV tandem Van de Graaff for the Greek Atomic Energy Commission.

Precision optics for the computer industry are offered by a new company, Group 128, Inc, of Waltham, Mass. Eric N. Grubinger, formerly of Honeywell, is president. □

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