"Many people think today that NSF should return to its earlier role, which is that of innovation, developing the new curricula and techniques. You know this is a lot easier said than done. One must search carefully to see what can be done that is really something substantive.'

"The educational system is changing. There is more individual freedom and a greater variety of educational routes in the university for all kinds of students. There seems to be a changing pattern in the years in which certain kinds of things are taught." There is more use of the laboratory, or cooperative work (in which students mix their study with practical work), and now, going still further, the open university concept is developing. "There is a feeling that NSF should look pretty hard today and tomorrow to see if another new thrust isn't needed. I think it's going to be very difficult, but that is the kind of pressure that is on our education program.'

Another new thrust is in institutional support. "There's a question as to what NSF's role in supporting institutions should be. I think it's terribly important to examine this. Just to show you the differing thoughts, look at the recommendation by Alan Pifer, President of the Carnegie Corporation, that universities shouldn't emphasize research the way they have-they should stick only to research directly related to education and let other research be done in research institutions. If that trend should start to develop over the next 10 or 20 years, it would result in quite a different way of doing NSF business."

"Although I certainly don't have any intention of changing the important role of the university in basic research, there are pressures in society which are pointing the universities away from re-

Our conversation then turned to NSF's past, present and future support of physics, the role of advisory committees, and the means of supporting graduate students. We will tell you about those aspects in next month's

Two Bartol students left out in the cold

A novel approach to life as a physics graduate student is being pursued by Michael A. Mongillo and Russell C. Mumm, who are first-year candidates for PhD degrees from the Bartol Research Foundation. Each man is combining course work with research at a cosmic-ray station in the Antarctic. At their posts since October, they will remain one year-Mongillo at McMurdo Station and Mumm, 700 miles away, at the South Pole (Amundsen-Scott) station.

The two men are doing their course work with self-study programs augmented by radio contact with Bartol professors and with each other. In addition, they spend about three hours a day operating and maintaining Bartol's high counting rate nucleonic-intensity detectors and meson scintillators, which are used to study phenomena including longitudinal and axial anisotropies and the propagation of solar cosmic rays.

in brief

Adventures in Experimental Physics is being published semiannually by World Science Communications, P. O. Box 683, Princeton, N.J. 08540. Personal subscriptions are \$10.00 per year; students pay \$9.00 per year and institutions \$20.00. Bogdan Maglić is the editor.

Applications for senior Fulbright-Hays awards for lecturing and research during 1973-74 can be obtained from the Fulbright-Hays Senior 2101 Constitution Ave, Washington, D. C. 20418. 1 July 1972 is the deadline for applying for research awards and is the suggested date for filing for lectureships.

The National Bureau of Standards has presented its 1971 Precision Measurement grants to Norval Fortson (University of Washington), William Parker (University of California at Irvine) and Arthur Rich (University of Michigan). The grants, consisting of \$15 000 each, were awarded for research in developing improved premeasurement techniques. The first three grants were presented in 1970 to James E. Faller (Wesleyan University), Daniel A. Kleppner (MIT) and Hugh G. Robinson (Duke University).

Recorded educational material may be borrowed, free of charge, from Recording for the Blind, 215 East 58th Street, New York, N. Y. 10022. The organization also seeks volunteers to make recordings.

the physics community

Panofsky is new APS vice-president elect

The American Physical Society elected a vice-president elect and two new council members and authorized three new committees during the joint APS-American Association of Physics Teachers annual meeting in San Francisco.

The new vice-president elect is Wolfgang K. H. Panofsky, director of the Stanford Linear Accelerator Center. Panofsky, who defeated Morton Hamermesh of the University of Minnesota, will automatically assume the APS presidency in 1974. Director of SLAC since 1961, Panofsky has worked on x rays and natural constants, accelerator design and the properties of elementary particles. Presently, he is also a consultant to the Arms Control and Disarmament Agency. The new council members are Betsy Ancker-Johnson, of Boeing Scientific Research Laboratory, as councillor-at-large and Eugen Merzbacher, of the University of North Carolina, Chapel Hill.

Installed as 1972 president of APS was Philip M. Morse, professor emeritus at the Massachusetts Institute of Technology. Morse will be succeeded by Joseph E. Mayer, of the University of California, San Diego, who took office as the 1972 vice-president.

The newly authorized APS committees include a committee on the status of women in physics, which is headed by Elizabeth Baranger of MIT. As a successor to last year's ad hoc committee, this new continuing committee is intended to carry out the recommendations of its predecessor. Another new committee will be concerned with



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