Presidential Science Adviser George Keyworth will comment on the APS nuclear-war resolution in the Guest Comment section of our April issue.

weapons distributed around the globe contains the explosive power of more than one million Hiroshima bombs;
Whereas a general nuclear war would kill hundreds of millions of people;
Whereas the aftereffects of general nuclear war are certain to be catastrophic for the survivors and could destroy civilization;
Whereas any use of nuclear weapons, including use in so-called "limited wars," would bring with it substantial risk of escalation to general nuclear war;
Whereas thirty years of vigorous research and development have produced no serious prospect of effective defense against nuclear attack;
Whereas nuclear arsenals of the United States and the Soviet Union are more than adequate for deterrence;
Whereas the continuation of the nuclear arms race will not increase the security of either superpower;
Whereas the proliferation of nuclear weapons to additional countries, especially in areas of high tension, would substantially increase the risk of nuclear war;
Whereas there has been no progress for several years now toward achieving limitations and reductions in strategic arms, either through ratification of SALT II or the negotiation of a replacement for it;
Whereas negotiations intended to achieve a comprehensive nuclear test ban have been indefinitely adjourned; and
Whereas negotiations intended to prevent or inhibit the spread of nuclear warfare to outer space have been suspended;
Be it therefore resolved that The American Physical Society, through its elected Council, calls on the President and the Congress of the United States, and their counterparts in the Soviet Union and other countries:
to intensify substantially, without preconditions and with a sense of urgency, efforts to achieve an equitable and verifiable agreement between the United States and the Soviet Union to limit Strategic Nuclear Arms and to reduce significantly the number of such weapons and delivery systems;
to conduct, in a similar spirit, negotiations to restrict the use and limit the deployment of battlefield and intermediate-range nuclear weapons;
to resume negotiations to prevent the spread of warfare into outer space;
to take all practical measures to inhibit the further proliferation of nuclear weapons to additional countries;
to take all practical actions that would reduce the risk of nuclear war by accident or miscalculation;
to continue to observe all existing arms-control agreements, as well as SALT II;
to avoid military doctrines and deployments that treat nuclear explosives as ordinary weapons of war; and
to initiate serious negotiations to ban the testing of nuclear weapons in all environments for all time as called for in the Non-proliferation Treaty.

The 30 elected members of the council approved the resolution almost unanimously.

Academy physics survey gathers steam

A comprehensive survey of physics, designed along the lines of the study completed in 1972 under the direction of Allan Bromley (Yale) is getting under way. William Brinkman (Bell Labs), who heads the survey for the National Academy of Sciences, told us that he has selected six members of a steering committee that eventually will have about 17 members. Thus far, those who have agreed to serve are William Fowler (Caltech), who will act as a liaison for the Academy Commission on Physical Sciences, Mathematics and Resources, as well as the steering committee, Theodor W. Hänsch (Stanford), Val Fitch (Princeton University), Ronald C. Davidson (MIT), Peter D. M. Parker (Yale) and Vincent Jaccarino (University of California, Santa Barbara).

Commenting on the need for the survey, Brinkman said, "The physics climate has gone through enormous changes in the past ten years. The Bromley report was written when relevance was the biggest issue; this is no longer true." Brinkman said that while the survey will emphasize the question of where physics as a science is going, it will also consider such issues as the role of big science in national

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facilities, increasing competition with the European and Japanese scientific communities, changes in the subfields of physics and how future opportunities within them will be influenced by both funding and research trends.

Brinkman estimates the total cost of this survey at $700 000; of this amount, $200 000 has already been requested from the Department of Energy. The Academy anticipates a similar level of support from NSF and the Department of Defense, and about half as much from NASA. The Academy is also seeking private funding to broaden the survey.

Current plans call for a report to be ready by February 1984; this will take about half the time the Bromley survey required, reflecting a reduction in scope. The steering committee, which met for the first time in February, is beginning by defining objectives for the study and setting up subpanels to meet these objectives. In addition to examining each of the subfields of physics, they will establish subpanels in physics applications, the unifying aspects of physics, the diversity of physics, and manpower and funding as they influence and are influenced by directions in physics research.

Brinkman, a solid-state theorist, now director of the Physical Research Lab at Bell Laboratories, received his PhD from the University of Missouri in 1965. Since 1966 he has been at Bell Labs, beginning as a member of the technical staff in the theoretical physics department, then serving as head of the infrared physics and electronics research department, from 1972 to 1974, and as director of the chemical physics research lab from 1974 until he assumed his present position in 1981. —JC

in brief

The American Vacuum Society will award scholarships for the 1983–84 academic year in vacuum science and

technology, vacuum metallurgy, surface physics, thin film research, electronic materials and processing, and fusion technology. Applicants, who must be enrolled at accredited North American graduate schools, should submit their applications by 31 March. Forms are available at AVS, 335 East 45 Street, New York, N.Y. 10017.

The Huazhong (Central China) University of Science and Technology Press, Wuhan, is publishing a new journal, *Communications in Theoretical Physics*. A bimonthly, it is published in English to facilitate the direct exchange between Chinese physicists and their counterparts around the world. The mailing address is P. O. Box 2735, Beijing, China.

the physics community

Sickafus is new Vacuum Society president-elect

The American Vacuum Society has elected officers for 1983. Edward N. Sickafus is the new president-elect. He will succeed John R. Arthur, who is the president of the Society for 1983.

Sickafus was educated at the Missouri School of Mines (BS in 1955, MS in 1956) and the University of Virginia (PhD in physics in 1960). He was a research physicist at the Denver Research Institute from 1960 to 1967 and assistant and then associate professor of physics at the University of Denver 1962–67. He then joined the Metallurgy Department of the Scientific Research Laboratory of the Ford Motor Company. In 1980 he became manager of the Advanced Components and Energy Systems Department of the Laboratory. At Ford his research has centered on secondary electron emission phemonena related to surface science, in particular, on cascade linearization, Auger line shape analysis, and Auger line shape synthesis for Auger quantitative analysis.

Other election results include the reelection of Jack H. Singleton (Westinghouse) as clerk and of J. Roger Young (General Electric) as treasurer. Three new directors were chosen: Susan D. Allen (University of Southern California), Paul H. Holloway (University of Florida, Gainesville) and John T. Yates Jr (University of Pittsburgh). New trustees are Lawrence L. Kazmerski (Solar Energy Research Institute) and Donald M. Mattox (Sandia National Laboratories).

SICKAFUS

French to be new vice-president of AAPT

The new vice president of the American Association of Physics Teachers is Anthony P. French of MIT.

French will succeed Joe P. Meyer (Oak Park and River Forest High School in Illinois), who has become president-elect while Robert P. Bauman (University of Alabama) has stepped up to the presidency for 1983. In turn, John W. Layman (University of Maryland), as the past president, continues his service as a member of the Executive Board.

French was educated at Cambridge University, receiving a BA in 1942 and a PhD in 1948. He was a member of the British Mission to the Manhattan Project at Los Alamos from 1944 to 1946 and a scientific officer of the Atomic Energy Research Establishment for the next two years. In 1948 he started to teach at Cambridge University; in 1949 he became director of studies in natural sciences at Pembroke College there. In 1955 he left Cambridge to become professor of physics at the University of South Carolina, where he remained until 1962, when he became a visiting professor at MIT. He has been, since 1964, professor of physics at MIT and, since 1974, the department's academic officer.

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Also elected were Howard Voss (associate professor of physics, Arizona State University) as secretary and Sallie A. Watkins (professor of physics, University of Southern Colorado) as member of the Executive Board.

Employment Survey: jobs scarcer, but not by much

Surrounded by a troubled economy, recent physics graduates are experiencing only slightly more difficulty than graduates of previous years in finding jobs, according to the *Employment Survey* 1981, prepared by the Manpower Statistics Division of the American Institute of Physics.

The survey compiled data from the return of questionnaires sent December 1981 to those who indicated in the previous summer that they intended to find jobs upon graduation. The percentage of 1981 PhDs who found jobs (excluding postdocs) in less than three months was 46%, identical to the percentage of 1980 PhDs given in last year's employment survey. For recipients of master's degrees, the percentage fell from 64% for 1980 graduates to 53% for 1981 graduates. Of those who received bachelor's degrees in physics in 1981, 66% found jobs in less than three months, down from 68%, announced in the 1980 survey.

Another finding, hardly a surprise, is that academic employment in universities continues to decline for new PhDs. Of 1980 PhDs responding, 20% got such jobs; of 1981 graduates, 17% did. For the 1978 group, that percentage was 24. Government jobs outside the Federally funded research laboratories are considerably scarcer: 12% of 1980 PhDs got them; only 8% of 1981 PhDs did. Industrial employment has risen slightly: 52% of 1981 doctoral graduates, compared with 50% of the 1980 class.

The study also concludes that experimental physicists are much more likely to obtain potentially permanent positions than are their theorist colleagues: 60% versus 38% for 1981 PhDs. Those accepting postdocs are more likely to remain in the fields of their dissertations: 85% who accepted postdocs remained in the fields of their dissertations. Only 58% of those with potentially permanent positions stayed in the fields of their degrees.

The survey is available, free, from its author, Susanne D. Ellis, Manpower Statistics, AIP, 335 East 45th Street, New York, N.Y. 10017. □