

lege-system strike (which resulted in a collective bargaining agreement for the strikers) and the Berkeley strike. The latter walkout began as a student strike over a war-and-peace issue and was later supported by an AFT local of teaching assistants. The assistants later demanded recognition for their local, and though the strike ended after a few days, discussions between the local and the university are continuing.

Concerning the Berkeley strike, Owen Chamberlain of the Berkeley department told *PHYSICS TODAY*, "The physics department staff estimates that between 5 and 10% of the physics teaching assistants may be members of the [striking] AFT local 1570. During the strike the teaching in the department was not very noticeably disturbed. The department chairman was aware of two cases of teaching assistants or readers who refused to do their regular work during the strike, and a number of ungraded papers did pile up in one course. There were probably two or three other cases not known to the chairman.

"The general view of the physics-department professors seems to be that a strike is a rather inappropriate weapon in a university environment. The staff is unanimous, I think, in believing that a strike should be used only when it is quite clear that all

forms of discussion and negotiation have been exhausted."

Science Cooperation with USSR Looks Bright Despite Vietnam

A high-ranking State Department official has told *PHYSICS TODAY* that the Russians will probably agree to renegotiate the US-USSR scientific-exchange agreement when it expires at the end of December. This same source noted that despite the Vietnam conflict and internal opposition to the pact both in the US and USSR, the Soviets and Americans are particularly eager to draw into closer scientific cooperation at this time.

The scientific exchange pacts, which have been renewed four times since 1958, have provided for extended stays in one another's country of leading US and USSR physicists. Last year a US delegation of low-energy physicists visited facilities in the Soviet Union, and two US fusion specialists spent a total of nine months at the Lebedev Institute in Moscow and the Physical Technical Institute in Kharkov. Currently, two Soviet fusion scientists, D. P. Ivanov and A. I. Yermakov, are conducting experiments at the Princeton plasma-physics laboratory.

What makes State Department officials think the Russians will ratify a new pact is their experience in negotiating the present agreement. Last

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In the twelve years following the introduction of the use of computer memories to measurements such as multichannel pulse height analysis, neutron time-of-flight analysis, and signal averaging, manufacturers have struggled to provide real versatility in a single instrument. That goal has been reached with great effectiveness in the model 1062 instrument computer (1024 or 4096 addresses).

This instrument has an internal organization which departs from the traditional. Instead of the usual "add-one scaler" data register, multiple registers with shift, transfer, complement, and whole number addition capabilities are provided. The rigid read, add-one, write program has been replaced with variable length programs including conditional jumps. All command lines are available to "front end" plug-in units. This structure permits each different measurement type to be made with the highest precision and efficiency; the traditional rigid organization invariably resulted in mediocre, or even poor, performance in all but one measurement type.

Our line of plug-in units will include capabilities for pulse height analysis, high precision voltage waveform digitizing, histogram measurements, multichannel scaling, and others. The first units available have been designed for precision digitizing and signal averaging, with spectrometer measurements the principal application. Other plug-in units will be announced soon.

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PRESIDENT JOHNSON addresses the American Physical Society during its April meeting in Washington, D. C., as presidential science adviser Donald F. Hornig (left) and APS president Charles H. Townes (right) look on.

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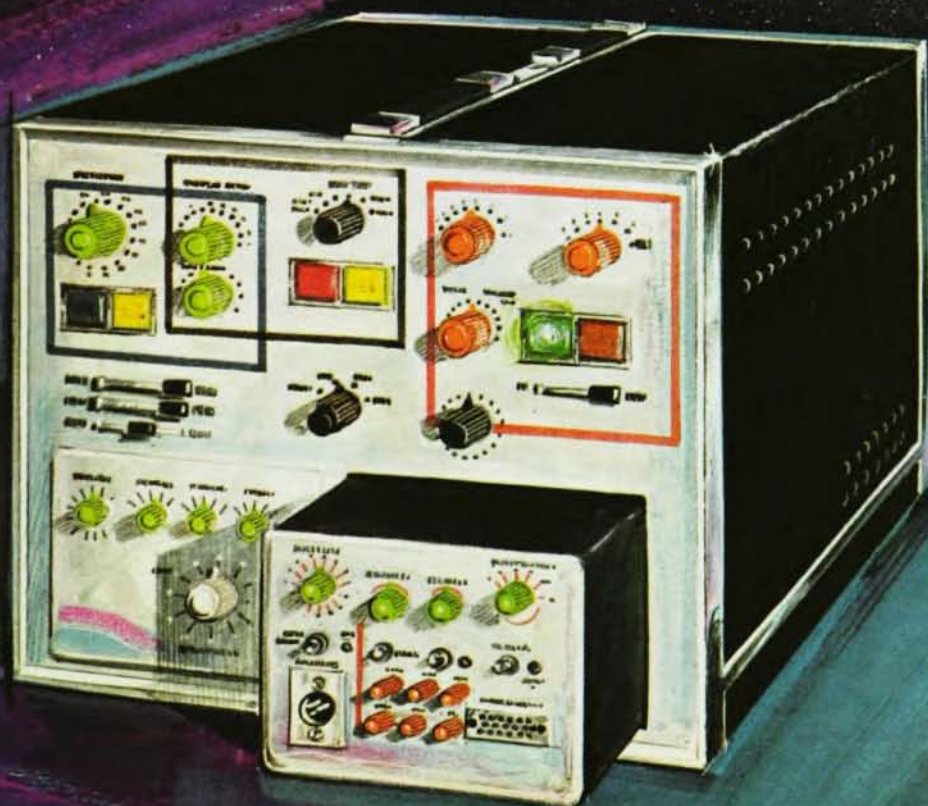
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Single Parameter

Pulse Height
Analysis
Multiple Parameter

Histograms
Non-Sequential
Address

THEY PLUG INTO THE

1062 Instrument Computer



March when the agreement was being discussed, the Soviets, according to those involved, referred repeatedly to the international situation, declaring that it was becoming more difficult and delicate for them to continue scientific exchanges with the US. "Nevertheless, they signed," said one of the US negotiators, "and we have reason to believe they will sign the agreement again."

A somewhat analogous situation obtains in the US where several congressmen, including Melvin Laird (R-Wis.) and Paul Fino (R-N.Y.), have offered resolutions that would defer cultural exchanges with the Soviet Union until such time as the Russians have "abandoned their policy of support for so-called 'wars of national liberation.'" In addition to this opposition many government officials caution against providing the Russians with any information that might undermine reported US technological superiority in a particular field. But the US as well as the Russians appears to believe that scientific and political advantages of collaboration far outweigh their disadvantages. And in Congress various spokesmen indicate that criticism of scientific agreements with the USSR will have the same fate as opposition to the recent US-USSR consular treaty, which the Senate passed by an overwhelming vote.

AIP Reorganization Arranges Activities in Three Branches

On 29 March, the American Institute of Physics put into effect a new plan of organizational structure (see chart on opposite page). As approved by the AIP Governing Board, the plan divides institute operations into three principal branches and replaces the deputy director post with three associate director positions, thus providing for a broader delegation of the director's authority and responsibility. The branches are: publishing and information, temporarily headed by AIP director H. William Koch; fiscal under Gerald Gilbert; and general activities (physics history, public relations, education and manpower) to be under Lewis Slack (see next story).

The directors of each division report to the corresponding branch director. The individual sections are under the supervision of their respective directors. Certain staff positions are directly attached to the offices of their related administrators.

Koch emphasized that a central concern of the institute is the rapid increase in volume of technical publishing and information. The reorganization will help the AIP publishing and information branch deal more effectively with these problems. The new plan complements recent steps (PHYSICS TODAY, April, page 73) taken by AIP to enlist member societies to serve on an advisory committee for reviewing information programs. In general the reorganization will make institute services to its member societies more effective.

AIP Appoints Lewis Slack As New Associate Director

AIP director H. William Koch has just appointed Lewis Slack associate director of the AIP general activities branch. He will replace Wallace Waterfall who has been acting director of one of the three newly created branches (see preceding story and chart). According to the provisions of the institute organizational plan, Slack will be responsible for the divisions of education and manpower, history and philosophy of physics, and public relations. He is presently assistant executive secretary of the division of physical sciences of the National Academy of Sciences-National Research Council. At the academy he is also secretary for the committee of nuclear science of the National Research Council and secretary of the physics survey committee which is commonly referred to as the Pake Committee.

Born in Philadelphia in 1924, Slack received a BS in 1944 from Harvard; in 1950 he obtained a PhD in physics from Washington University in St. Louis. From 1954 to 1962 he served on the physics faculty of George Washington University in Washington, D. C. Prior to that he was a nuclear-physics researcher in the electronics division of the Washington Naval Research Laboratory. During World War II he served as a radar

electronics officer in the US Naval Reserves.

Slack is by no means a stranger to AIP and scientific societies. At present, he is chairman of the editorial advisory board of PHYSICS TODAY and is the AIP representative to the cooperative committee on the teaching of science and mathematics for the American Association for the Advancement of Science.

Many Acoustics Jobs Says New ASA Careers Booklet

Acoustics and You, a booklet recently released by the Acoustical Society of America, discusses required preparation and opportunities for a career in acoustical science. The booklet shows that, because of the increasingly wider range of activity in acoustical research, there is a current shortage of acoustical scientists and engineers. Acoustical job opportunities abound in government, industry and education in areas related to life and earth sciences, the arts and engineering. Areas that show special promise are ultrasonics, communications, oceanography, space exploration, aviation, architecture, noise control, automobile sound conditioning and underwater sound. A free copy of the booklet can be obtained from Acoustical Society of America, 335 E. 45 St., New York, N. Y. 10017.

ICSU Abstracting Board Surveys Physics Journals

The International Council of Scientific Unions Abstracting Board has published a detailed study of 107 major physics periodicals. Compiled from the records of its member abstracting services (*Physics Abstracts*, *Physikalische Berichte*, *Referativnyi Zhurnal* and *Bulletin Signaletique*), the survey is intended to supply anyone interested in physics literature with a comprehensive understanding of the background of individual periodicals. Choosing 1964 as a sample year, ICSU analyzed all aspects of primary periodicals in collaboration with the editors of each journal. The result is an exhaustive collection of statistics and tables giving information about periodicity, format, advertising, number of pages per issue and year, costs, index-