

semi-elements

INVITES YOU TO VISIT

**BOOTH-123**

AT THE  
**PHYSICS SHOW**

see...

## SEVAC

Grade Chemicals  
**IN ACTION!**

...

A complete new line of narrow linewidth Single Crystal Garnets for microwave applications.

...

High quality single crystals of Cadmium Sulfide and Cadmium Selenide.

...

Many other single crystals from the most diversified crystal line in the world, including Metal Single Crystals, Semi-Conducting Crystals, Silicon and Germanium Crystals, Laser Crystals, Single Crystal Substrates.

...

### ALSO

The new Semistat\* Variable Voltage Power Controller for stepless control of AC power.

...

### AND

A new Laser Transit for surveying tunnels, mine shafts and other types of underground excavations.

\*Trademark



semi-elements, inc.

Saxonburg Blvd., Saxonburg, Pa., 16056

Phone: 412-352-1548

In our graph the dashed line represents this Pake Committee projection from the base year of 1963 to 1969. The annual rate of increase in federal support shown by this hypothetical line is approximately 14.5%. During the last four years, however, as shown by the solid line, the actual annual rate of increase has been about 8%. (Open dots represent estimated expenditures.) The rate of growth in federal support for all basic sciences during the same period was 10.5%. The dotted line from fiscal 1967 to 1969 represents the annual rate of 32% at which federal physics support must increase in the next two years to reach the Pake Committee projection. With no new catalysts in the offing quite like the sputniks of past years and with Great Society programs slowing down, many Washington observers believe that federal physics support will continue at about the same rate of increase as in recent years.

Commenting on these trends, George Pake of Washington University told *PHYSICS TODAY*, "I'm sure that if we got to 1969 and found that the factor was 2 instead of 2.3, the situation would not be quite too bad. But now we can see that the factor is going to be something like 1.5 instead of 2.3. With such a small rate of increase, I think we are really going to be in bad shape. The continuing relatively level pace of the graph just underscores all the concerns we expressed in the committee report. We're not greedy for more money for physics; it is only that our country is increasingly science-oriented; there are more and more physicists. If federal support doesn't keep pace with the number of physicists, the quality is going to go down."

### Delegates Bolster IUPAP Leadership and Budget

US delegates to the recent Basel meeting of the International Union of Pure and Applied Physics have returned with feelings of accomplishment and relative optimism concerning the world organization (*PHYSICS TODAY*, October, page 71). Two of their objectives for making IUPAP a more effective union were realized—providing more dynamic leadership and increasing IUPAP's modest working budget.

First, Robert F. Bacher (California

Institute of Technology) was elected IUPAP first vice president. Bacher is now in line to succeed the current IUPAP president, Dimitri I. Blokhintsev of the USSR, when Blokhintsev leaves office in 1969. Secondly, the basis of IUPAP annual support per country was raised from \$150 to \$250 per unit. In addition the union executive committee is negotiating with the various member countries to increase the number of units assigned to each country by about 50%. (For example, the US and USSR, which now have 12 assigned units each, are expected to have their quotas raised to 18 units each.) Taken all together, the planned increments will eventually enable IUPAP more than to double its revenues.

Nevertheless, in one important respect, the initiative of the US and other delegations was deflected. Their proposal to form an IUPAP committee on meetings was set aside and left for consideration by the executive committee.

In other matters, the IUPAP assembly elected Hugh C. Wolfe (American Institute of Physics) president of the union publication commission. The commission's guide for preparing manuscripts and abstracts was also approved; the group is now modifying its guide to achieve accord with a similar guide proposed by UNESCO. Next spring the commission will hold a conference on the common problems of physics editors and the prospect of an international physics information system.

### APS Membership Approves All Changes in its Constitution

By an overwhelming majority, the membership of the American Physical Society has approved all of the proposed amendments to the APS constitution (*PHYSICS TODAY*, June 1966, page 105). The far-reaching revisions principally provide for (1) a bigger APS council by giving voting representation to the divisions, (2) an executive committee to prepare major business for council action and take action on lesser matters between council meetings and (3) an executive secretary, elected by and responsible to the council, who will be in charge of a staff to organize meetings and handle