

# PHYSICS AND GOVERNMENT

## *NSF appropriations slashed*

While many scientists are mourning the sudden death of Mohole in a welter of dismal Capitol politics, the real news for physics concerns the other sizable NSF reduction—over \$25 million that Congress had cut out of the National Science Foundation's research and science-education programs. The \$14 billion domestic appropriations bill, containing NSF funds for fiscal 1967, was bandied back and forth between both chambers while Congress struggled over Mohole. Finally on 24 Aug. the Senate concurred with the House and Mohole was dead for this session at least.

Specifically, the cuts will force the foundation to pare its basic research budget by \$10 million, reduce its graduate science facilities budget by \$5 million (\$10 million below 1966), reduce its education programs (other than college science improvement) by \$6.5 million (\$2.5 million below 1966) and make other scattered reductions totaling \$3.8 million. NSF director Leland Haworth termed the cuts "deleterious" and said they would result in "significant and lasting adverse effects on our national programs . . . effects that would be felt by many academic institutions and by hundreds of scientists and students in all sections of the country."

## *200-GeV imbroglio*

"A site selection should be expected by the end of September," Rep. Chet Holifield, chairman of the Joint Committee on Atomic Energy, recently told Congress. An Atomic Energy Commission spokesman, however, denied this and reiterated the AEC position that the "commission hopes to be able to select a site before the end of this calendar year." Another member of the Joint Committee, Rep. Craig Hosmer, agreed with Holifield and said that the AEC "has been sitting on the list ever since it got it." Hosmer, a Republican, charged that the White House had ordered the commission to

## RESONANCES

**Tax deductible education expenses** for teachers will become a reality if Congress has its way. Both Senate and House are aroused over proposed Internal Revenue Service rules to tighten educational expenses of teachers. IRS claims that Congress has never endorsed educational expenses and Rep. McVicker (D-Colo.) and Sen. Yarborough (D-Tex.) and others intend to put such wording into law.

**More federal assistance to education** is being proposed in Congress through two diverse pieces of legislation. In one, Rep. Brock (R-Tenn.) has taken the lead in urging that a portion of federal-income-tax money be turned over to state and local governments for their school systems. In the other Sen. Ribicoff (D-Conn.) has offered a bill that would encourage colleges and universities to obtain money from private sources by making tax free the interest on bonds sold to expand their facilities.

**The Townes-Schawlow laser patent** has been upheld by the US Court of Customs and Patent Appeals against claims of primacy filed by Gordon Gould (PHYSICS TODAY, Jan., p. 94). The court ruled that Gould had failed to prove either prior conception or "reasonable diligence in reducing it to practice."

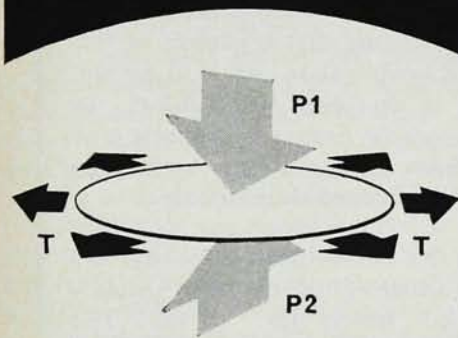
**"Clearly erroneous," says Sobell's lawyer** of the alleged atomic-bomb sketch used as key evidence in the 1951 trial that resulted in the execution of Julius and Ethel Rosenberg and a 30-year sentence for Morton Sobell. Sobell's lawyer told PHYSICS TODAY that affidavits he had received from Philip Morrison of MIT and other scientists involved in construction of the bomb "more than support" his charge that the sketch is completely false.

**Three top mainland Chinese physicists** have been invited to two conferences on high-energy physics early this month at Berkeley and Stanford. With State Department blessing, conference chairmen W. K. H. Panofsky and Edwin M. McMillan extended invitations to Wen Yu-chang of the Peking Institute of Atomic Energy and Chow Kuang-chow and Ning Hu of Peking University. Thus far no word has been received from the Chinese, who have not attended an international high-energy physics conference since 1959 in Kiev.

**An international physics olympics** for senior secondary-school students has been proposed by the Polish Physical Society and the Polish Ministry of Education. The Poles, who have held their own national physics olympics for the past 13 years, visualize a similar contest in each participating country, followed by a worldwide physics olympics. Thus the future may have us cheering our young men in the 100-question mechanics final as well as in the 100-meter dash, with a Dyson or Feynman as coach.

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do so. "The Johnson administration," he added, "wants to stall the project a year or more due to its budget difficulties."

Meanwhile Capitol sources indicate that there are many Congressmen just biding their time until the AEC announces its final selection, at which time a real catfight will break out among antagonists. "The situation will then get so hot," said one Congressman, "that Congress may decide to lay the matter aside for a few years until things quiet down to a fever pitch."

### Wood gives budget advice

With tight budgets the rule in many physics departments, some words of advice on how to ameliorate the situation have come from Lloyd Wood, head of the physical sciences division at the Air Force Office of Scientific Research. In a recent interview, Wood told PHYSICS TODAY, "The reason the budget in support of physics research is tightening is that the physics community has not pointed out with sufficient vigor the importance of basic research to national defense. We have no tradition in this country for supporting physical research simply because it's generally desirable for the technology of the nation. Defense is by far the largest supporter of research; it is the biggest user of new basic knowledge. Recent reports in physics and the other sciences fail to give enough publicity to this fact. We have put our arguments mainly on a general-welfare basis whereas we should place them on a specific-purpose basis."

### Brain drain spills over

Migration of scientists from one country to another, which extends back to antiquity, has in recent months become the subject of a growing conflict between United States policies and those of the rest of the world, with the scientists themselves caught in the middle.

A recent survey by the Organization for Economic Coöperation and Development indicates that some 5000 scientists and engineers migrate to the US each year. National Science Foun-

dation data show that 754 physicists entered the US as immigrants during 1962-64, which is roughly one third the total US physics doctorate production for that period.

Migrating students and scientists, it is said, are exercising their basic human rights to live and work where they please. "A man who cannot work his life span is an invigorating atmosphere," said S. N. Chinai, an Indian-born physicist, at a McGraw-Hill panel, "is not giving his best to the nation nor to himself. A physicist does not necessarily want to live in a foreign country where acceptance of himself is difficult and competition is keen. He does not, however, want to waste what has taken him so long to achieve."

Analysts of the brain drain suggest that such alienation of thousands of scientists constitutes a painful disservice to their own impoverished countries and the cause of economic development. Observers also point out that the US, with its enormous technical capacity, has an unlimited demand for precisely those people needed by countries we are spending billions of dollars annually to help. "We are in competition with the results of our own assistance policies," writes James Perkins in the July issue of *Foreign Affairs*. "Foreign aid might simply be a misnomer for domestic assistance with overseas implications."

Meanwhile, a committee of the United Nations Economic and Social Council (including Abdus Salam and Pierre Auger) has concluded that advanced countries "must encourage scientists from developing countries to return home after their training or experience abroad. Advanced countries should take the responsibility for providing arrangements whereby scientists from developing countries can keep close personal contacts with work in more advanced laboratories."

Responding to the concern felt in many quarters, the US State Department has taken steps to improve both the rates of return for exchange students and scientists (now 97%) and for academic visitors who arrive on their own. (The latter group constitutes the greatest number of nonreturning visitors). Through its field