the dairymen, discovering that Hosler had talked with the orchardists, assumed that he was the scoundrel fouling up the weather. "It was their logical conclusion," says Hosler. "They reasoned, 'All the commercial people have stopped but the drought continues; therefore it must be that fellow at Penn State. He still has the research program.' "

Subsequently, when a heavy rainfall drenched the area, the dairymen blamed Hosler for that too. "They blame me for anything they think shouldn't happen. One says I've destroyed the fertility of their eagles, another says it's not cigarette smoking but my cloud experiments that cause their emphysema. One individual claimed that he was burned by chemical agents that cloud seeding had deposited on vegetation (he probably had poison ivy). They feel that somehow the scientists, the professors, the government, are conspiring against them."

In the meantime, Hosler is continuing his research at Penn State. His group is devising mathematical models of clouds and cloud systems, trying to determine some of the parameters that enter into the development of precipitation. With such a model, they can modify those parameters which are within the realm of artificial manipulation, such as a colloidal state or phase transition. Most recently they have investigated the heavy snow showers that plague the shores of the Great Lakes. By altering the size and shape of the snow flakes, they will attempt to give them flatter trajectories, thus causing the snow to be deposited over a wider area downwind rather than in clumps along the shore. The US Weather Bureau, the Environmental Science Services Administration and the National Science Foundation are sponsoring the project. Penn State, Cornell Aeronautical Laboratory and the State University of New York at Albany are participating.

"This project will be experimental in nature and will cover a short period to check the models and theory," says Hosler. "It will not be an operation designed actually to move the snow over a long time period. Even so, it is hoped that before any cloud modification is done next winter, we will have the opportunity to explain it to local officials and the public so that they understand that we are not about to change their weather but are only trying to find out if we can. If it works, then the scientific question is answered; whether the potential weather control is exploited is a local matter."

The Pennsylvania dairymen, meanwhile, have lobbied to introduce a bill into the state house of representatives that would have effectively prevented any future cloud-seeding experiments. The bill passed, but was amended in the state senate to be primarily regulatory, and in the new form it was enacted into law. Pennsylvania now joins 22 other states that have regulated weather-modification activities.

"[THE FARMERS] blame me for anything they think shouldn't happen. . . . They feel that somehow the scientists, the professors, the government are conspiring against them."

SLAC Blends Physics With the Environment

Just a few months ago, the citizens of Woodside, Cal., were up in arms over the AEC plan for stringing a 200-kV line on conventional four-legged structures to feed the Stanford University 20-GeV linear accelerator. While west-coast physicists wrung their hands fearing a public outcry against an often maligned high-energy physics, the commission and its scientists and architects got busy to devise a plan for placating the citizenry.

Tapered steel poles, 48 to 94 ft tall, painted a dull light green, and light gray insulators were blended into the landscape. Corona-rings and line hardware were selected for minimum radio-interference voltage, thus eliminating radio noise at residences and at a radio-astronomy laboratory close by. Great care was also taken to reduce damage to foliage and terrain. A helicopter carried materials and set poles at sites not accessible to cranes. At the same time, a conductor corridor was avoided by angular routing through the hills and trimming trees in an irregular manner.

The result of such efforts has been to win the approbation of the Woodside denizenry and enter a small plus mark in the public attitude to high-energy physics.

NSF Gives AIP Grant to Build National Information System

The American Institute of Physics has received an initial grant of $239 300 from the National Science Foundation to begin development of a national scientific information system in physics and astronomy. This is the initial funding of a long-term project for which a total NSF grant of $1 180 000 has been requested. AIP director H. William Koch will be the program's principal investigator; its staff of more than 30 will include computer, scientific and other professional personnel.

In implementing this program, AIP will study all aspects of the communication of physics knowledge—traditional publication, written informal communications, use of the telephone, laboratory visits, professional meetings, use of abstracting services, specialized bibliographies, computer retrieval, etc. It will study means of improving such "creative simplifications" as condensations, indexes, reviews and compilations of evaluated data. The program will have two main parts: (1) the analysis and retrieval of physics information—to develop means for identifying and searching for pertinent material, and (2) the analysis and devel-

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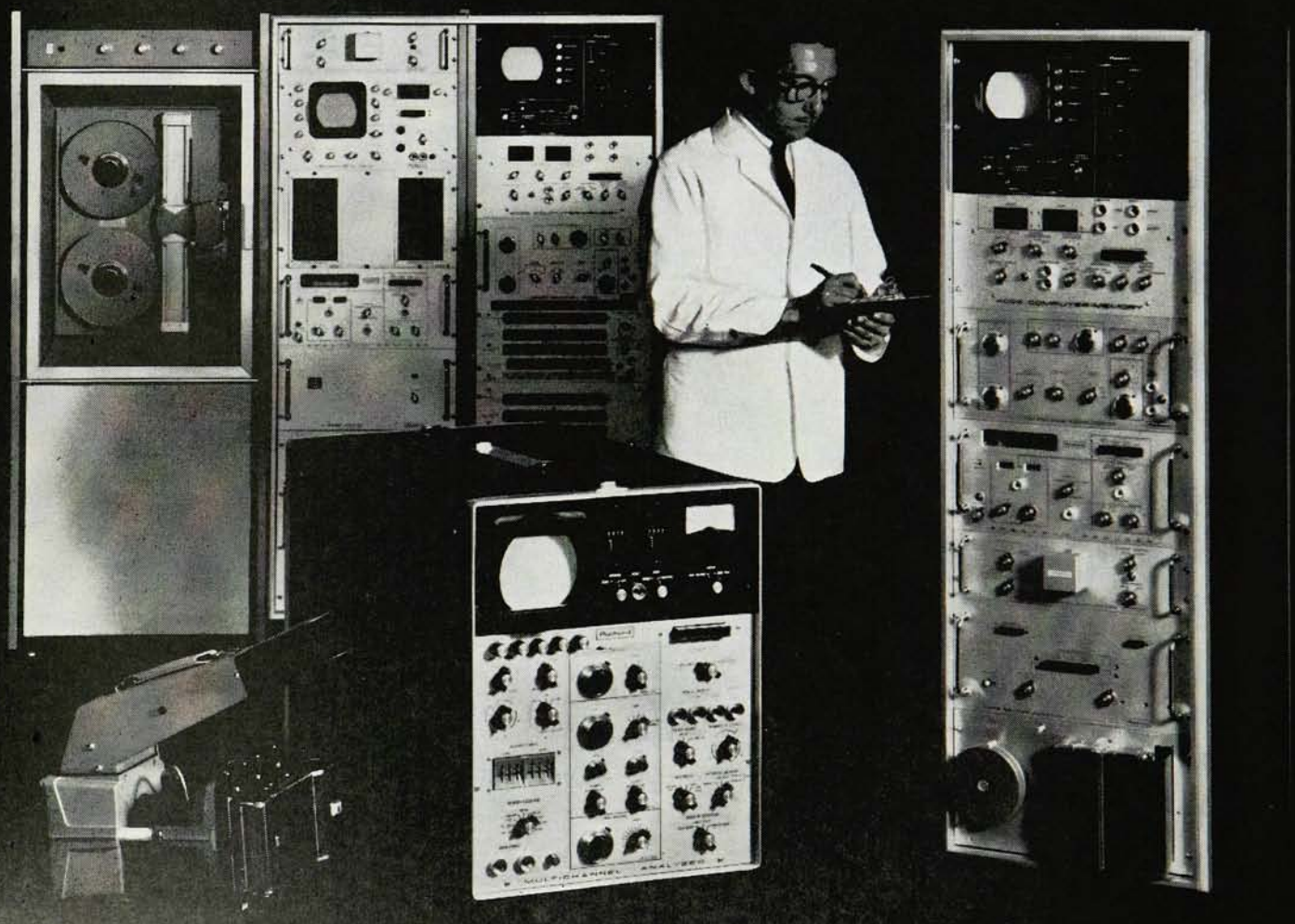


opment of a physics-information system—to be able to mesh the retrieval program into the entire physics-information picture.

At a meeting of the advisory committee to the information program, held on 11 Dec., Koch discussed the means by which various AIP groups as well as related disciplines will be kept abreast of information activities, emphasizing that AIP essentially represents all American physicists.

Information concerning the program will be disseminated through certain liaison groups. Within AIP these include the governing board and society officers, the advisory committee (society representatives) and its subcommittees, additional correspondents named by the committee, the publication board, the corporate associates and the society members (through PHYSICS TODAY). Other liaison groups consist of non-AIP physics editors (through IUPAP), physics information analysis centers, industrial and federal information centers, related disciplines (mathematics, chemistry, etc.) and national committees (COSATI, SATCOM).

Koch also outlined the organizational changes made in the publishing and information branch at AIP. The new branch consists of four divisions: publications, information, PHYSICS TODAY and advertising. The information division has undergone the major changes. Under the direction of Arthur Herschman, it now is responsible for the programs in computer composition, development of a computer store, information retrieval and systems development.

Physicists and Engineers Call a Strike at RCA

During the cold days of November physicists and engineers stood in picket lines outside of four of Radio Corporation of America's New Jersey plants at Cherry Hill, Moorestown, Gibbsboro and Camden. The men were members of the Association of Scientists and Professional Engineering Personnel (ASPEP), a union organized in 1945 to offer collective-bargaining representation for all research, design and development men at RCA's Camden-area facilities.

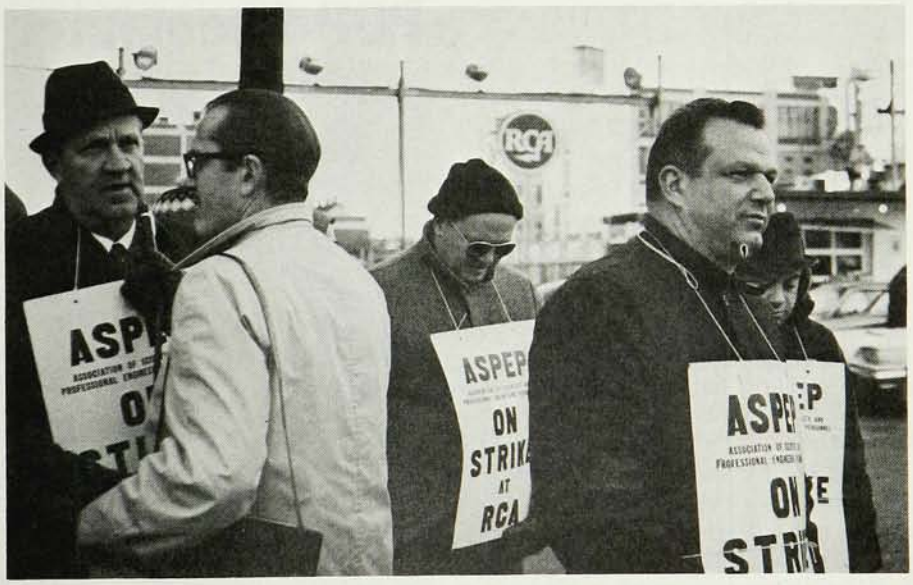
PHYSICS TODAY interviewed several union members to find out their opinions on unionization of professional groups. Most of them were in favor of some type of representative group that would act as a collective-bargaining unit for its members. "Organizing is a good thing," says Vincent Carita, a project engineer and ASPEP member. "It helps individuals who are inept in speaking for themselves." Kenneth Weaber, an engineering physicist and active member of ASPEP, regarded the advent of unions among professional people as a certainty: "Since most of us in industry have a relatively narrow field, we are forced to think of more practical matters such as salary and seniority. Situations of this nature are bound to produce unions for professional workers."

Feelings about affiliation with AFL-CIO are mixed. Although the majority of those questioned felt that the usual connotations of a union should be avoided, they considered affiliation with AFL-CIO a strengthening factor at the bargaining table. Kenneth Hudson, a physicist in applied research, stated, "We don't think it [unionization] enhances our image with the public, but the company does not treat us as professionals anyway." RCA representatives had no comment to make on affiliation.

With a membership of about 1000 (approximately 75% of all engineers and scientists employed at the four locations) ASPEP voted for a strike that would force RCA to draw up a feasible seniority and layoff policy. Union representatives contend that, in the past, RCA had no clearly defined policy nor would the company give reasons for laying off employes. In 1964 approximately 400 scientists and engineers were "indiscriminately" laid off without regard for seniority or merit rating. Since that time, however, there have been no layoffs in "more than three years," according to an RCA spokesman.

Although in the past ASPEP has recorded a substantial number of advances (they have provided basic salary increases of between 276% and 332%) at present they have not been as successful. During the strike, which lasted for four weeks, well over 680 of those represented by the union crossed picket lines to report for work, according to a spokesman for RCA. When ASPEP members realized that their demands would not be met through negotiation, they decided to end the strike and turn their grievances over to arbitration and the courts for a settlement.

Realizing that ASPEP does have the pep but not the power, union officials anticipated a struggle for their demands and have taken steps to become affiliated with AFL-CIO. This recent move should establish a sepa-



STRIKING SCIENTISTS at RCA in Camden, N. J. William Kircher (left) is director of organization for AFL-CIO. Vincent Carita, physicist, is on the right.