

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.

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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