
Miscellany

Helium

Users of helium for research purposes have had difficulty in obtaining gaseous helium because of its extreme scarcity, particularly when needed in college or university laboratories for research not supported under government contract or grant. Within the US Bureau of Mines, which is the free world's sole producer of helium from natural gas, helium is allocated by the Helium Liaison Office, and it is understood that that Office will give consideration to requests for helium upon the recommendation of a federal agency which has knowledge of the intended research even though it does not support the research financially.

For the information of those engaged in cryogenic research, the National Science Foundation is prepared to review applications and make recommendations to the Bureau regarding the basic research needs of individual laboratories which cannot otherwise obtain helium. It is emphasized, however, that the Foundation's assistance should not be sought until it is clearly evident that the required quantity of helium is unobtainable through normal channels. Such inquiries should be addressed to the Director, National Science Foundation, Washington 25, D. C. The following information must be included: (1) the monthly helium needs, (2) where and how the helium is to be used, and (3) the name of the supplier (if obtained through a sub-supplier, the name of the principal supplier must be given).

An article dealing with the reasons for the present shortage of helium, the current status of stop-gap measures, and the corrective steps which must be taken in the future if the limited resources of helium are to be conserved will appear in the August issue of *Physics Today*.

Killian Resigns

James R. Killian, who has served for the past year and a half as the President's special assistant for science and technology, has left Washington to take up his duties as chairman of the corporation at Massachusetts Institute of Technology. His successor as chief adviser to the White House on scientific matters is George B. Kistiakowsky, professor of chemistry at Harvard University, who has been a member of the President's Scientific Advisory Committee since its creation in the latter part of 1957.

Dr. Killian was called to Washington shortly after the launching of the first Soviet satellites, at a time when the Administration was faced with the formidable

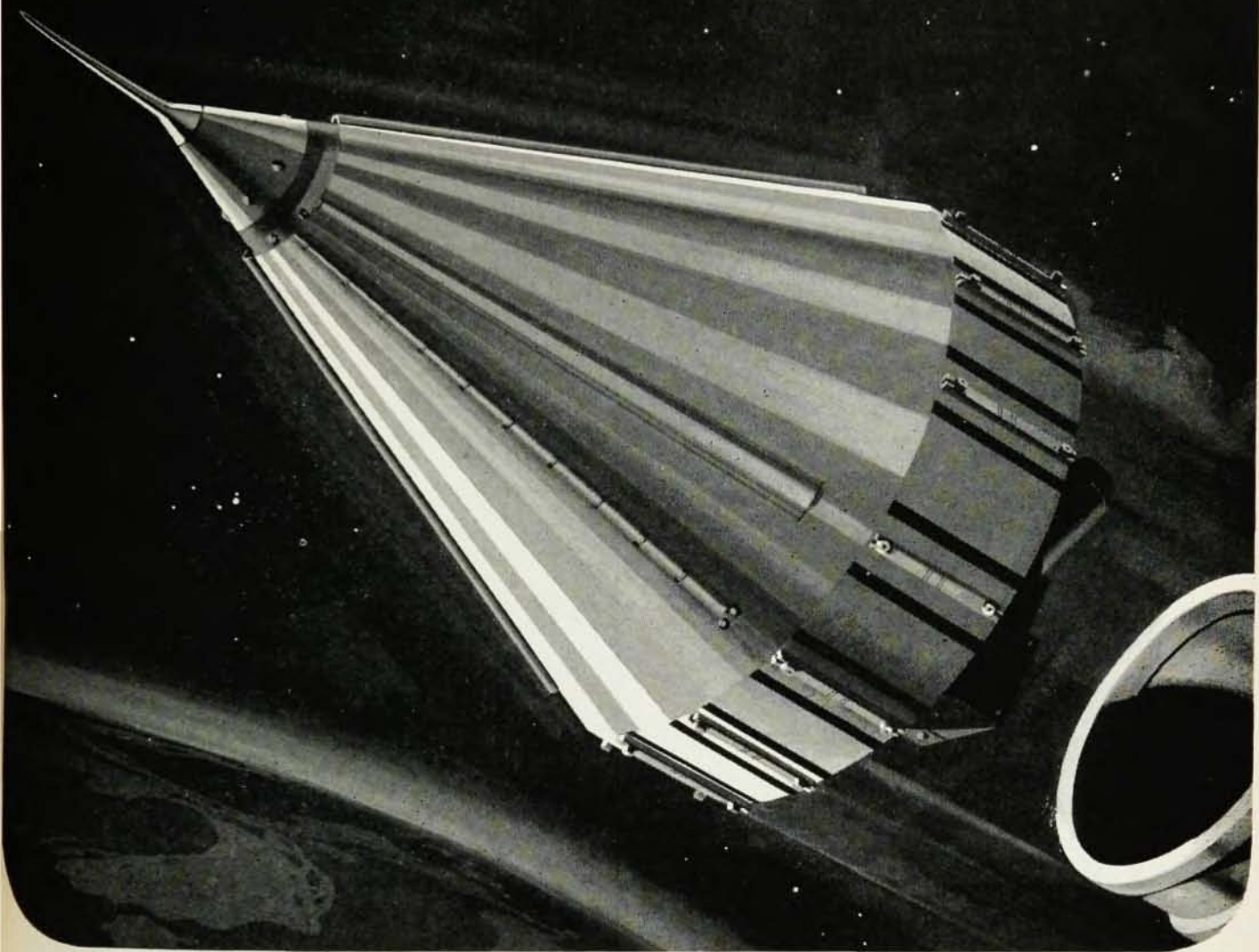
tasks of creating an effective national policy on education and of coordinating the diverse scientific and technological efforts of the many departments and agencies of the federal government. He came to the White House advisory post with the full support of the American scientific community, and it is a measure of his success that that support not only remained undiminished but if anything was enhanced during his stay in Washington.

Prof. Kistiakowsky, a physical chemist, was chairman of Harvard's Chemistry Department from 1947 to 1950 and is known for having done basic work in molecular spectroscopy, in the precise measurement of heat in chemical reactions, in photochemistry, and more recently in the kinetics of free radicals. During World War II he served as chief of the explosives division of the National Defense Research Committee, established and headed the Explosives Research Laboratory at Bruceton, Pa., and helped establish a laboratory for underwater explosives research at Woods Hole, Mass. In 1944, his knowledge of explosives brought him to the Manhattan District's Los Alamos Laboratory in New Mexico, where he headed the division concerned with designing a workable detonation system for the atomic bomb. He is a member of the American Physical Society.

Education

Three of the US Atomic Energy Commission's traveling exhibits are now on the road in connection with a new "Atoms at Work" science-teacher training program to be carried out during the summer months. With the help of funds made available by the National Science Foundation, the new program will be administered for the Commission by the Museum Division of the Oak Ridge Institute of Nuclear Studies in cooperation with the National University Extension Association, and will be known as the "NUEA Science Training Program in Atomic Energy". It will center around three mobile exhibits operated by ORINS for the Commission, accompanied by specially trained personnel, and will be presented at some 50 colleges and universities in ten states. Vans carrying the exhibits will visit NSF summer institutes for science teachers, NUEA member institutions, and summer sessions of teachers' colleges. During two days on each campus, science teachers will study the exhibit and receive classroom presentations dealing with the eight major topic areas of the "Atoms at Work" mobile exhibit: man and energy, atomic fuels, fission, nuclear power program, radioisotopes, safety, international cooperation, and fusion. When not in use for classroom presentations, the exhibits will be open to the public.

The National Science Foundation has made funds available to Temple University for the purpose of inviting foreign physicists who are well informed on matters concerning science education in their home countries to visit this year's NSF Summer Institutes. Each lecturer



PIONEERING IN SPACE RESEARCH

Another important advance in man's knowledge of outer space was provided by Pioneer III. This, like many others of a continuing series of space probes, was designed and launched by Jet Propulsion Laboratory for the National Aeronautics and Space Administration. JPL is administered by the California Institute of Technology for NASA.

During its flight of 38 hours, Pioneer III

was tracked by JPL tracking stations for 25 hours, the maximum time it was above the horizon for these stations.

The primary scientific experiment was the measurement of the radiation environment at distances far from the Earth and telemetering data of fundamental scientific value was recorded for 22 hours. Analysis of this data revealed, at 10,000 miles from the Earth, the existence of a

belt of high radiation intensity greater than that observed by the Explorer satellites.

This discovery is of vital importance as it poses new problems affecting the dispatch of future vehicles into space. The study and solution of such problems compose a large part of the research and development programs now in extensive operation at the Laboratory.



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will spend about two days at each institute he visits, but may stay longer if the host group feels it would be beneficial for him to do so. Funds will be provided under the Temple program to cover travel expenses and a per diem honorarium for each visit whenever local funds will not cover expenses at an institution. The following list includes the names of physicists already in the United States who have agreed to participate in the program, together with their professional affiliations, proposed lecture topics, and areas and times in which they are available:

- Solly G. Cohen, Hebrew U., Israel, particle accelerators in nuclear physics research (Far West through Aug. 21)
 E. Roland Dobbs, U. of London, England, solidified inert gases; ultrasonics in solids at low temperatures (Eastern US preferred through July 25)
 Robert A. Kamper, U. of Oxford, England, paramagnetic resonance in gases (Western US through July 31)
 Johanna M. Levelt, Municipal U. of Amsterdam, Netherlands, law of corresponding states; liquid and gaseous states (Midwestern, Central US through Aug. 7)
 Edward R. Pike, U. College, Cardiff, England, counting x-ray quanta; soft x rays in solid-state study (Eastern, Central US through Aug. 21)
 Ernst H. Sondheimer, U. of London, England, electron theory of metals (Far Southwestern US through Aug. 21)
 Riek Van Wageningen, State U. of Groningen, Netherlands, foundations of nuclear shell and optical model (Western US through Aug. 25)
 Hans Warhanek, Vienna Inst. for Radium Research, Austria, low-energy nuclear reactions; nuclear spectroscopy (Central, Midwestern US through Aug. 21)
 Gurdeva S. Verma, U. of Allahabad, India, ultrasonics and hypersonics in solid-state physics and liquids (Central and Eastern US through Aug. 21)
 Livio Scarsi, U. of Milan, Italy, general considerations about origin of cosmic rays; MIT volcano ranch air showers experiment (Western and Central US through July 31)
 Hans A. Buchdahl, U. of Tasmania, Australia, geometrical optics, basis of phenomenological law of thermodynamics (Eastern and Central US through July 23)
 James A. Roberts, CSIRO, Sydney, Australia, radio astronomy (Central and Western US through Aug. 21)
 G. Hugh Burkhardt, England, high-energy nuclear physics (Eastern US through August)

In addition, three foreign scientists concerned with science education have received special invitations to come to the US to participate in the Temple University program through the latter part of August: Sir George P. Thomson, Nobel laureate and professor emeritus of physics at London University, Jorge Sabato of Argentina, who for nine years taught physics at different types of secondary schools and is currently the Argentine correspondent member to the Council of the British Institute of Metals, and Maurice Dreyfus, senior professor of physics and chemistry at the Lycee Voltaire in Paris, who was a participant in the 1953 Westinghouse summer institute for high-school teachers.

Further information concerning the program can be obtained from Dr. Elmer L. Offenbacher, Temple University, Philadelphia 22, Pa.