Miscellany

An Emerging Science Policy

Almost overnight, thanks to the enterprise and ingenuity of Soviet missile engineers, a prevailing public indifference to science and scientists in the United States has given way to a nationwide involvement in the problems of America's scientific future. That involvement was reflected in the President's second post-sputnik address to the nation. The US, he emphasized, must give higher priority to basic research and to education in the sciences. Concerning basic research, the President stated that the government is stepping up its basic research program but that "with 70 percent of research expenditure, the biggest share of the job is in the hands of industry and private organizations". Concerning education, the President recommended:

> "We should, among other things, have a system of nationwide testing of high school students; a system of incentives for high aptitude students to pursue scientific or professional studies; a program to stimulate good quality teaching of mathematics and science; provision of more laboratory facilities; and measures, including fellowships, to increase the output of qualified teachers.
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> "The Soviet Union now has in the combined category of scientists and engineers a greater number than the United States, and it is producing graduates in these fields at a much faster rate. Recent studies of the educational standards of the Soviet Union show that this gain in quantity can no longer be considered offset by lack of quality.
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> "This trend is disturbing. Indeed, according to my scientific advisers, this is for the American people the most critical problem of all. My scientific advisers place this problem above all other immediate tasks of producing missiles, of developing new techniques in the armed services: We need scientists. In the ten years ahead they say we need them by thousands more than we are now presently planning to have."

Earlier in November, as demands were continuing to mount for such decisive actions as the appointment of "a Cabinet-level Secretary of Scientific Research" and the creation of "a Manhattan-District-type project" to consolidate the nation's far-flung missiles programs, President Eisenhower announced that he had appointed James R. Killian, Jr., president of the Massachusetts Institute of Technology, to the newly created office of Special Assistant to the President for Science and Technology.

> "This man," the President said, "who will be aided by a staff of scientists and a strong advisory group of outstanding experts reporting to him and to me, will have the active responsibility of helping me follow through on the program of scientific improvement of our defenses. . . . Through him I intend to be assured that the entire program is carried forward in closely integrated fashion. He will help to see that such things as alleged interservice competition or insufficient use of overtime shall not be allowed to create even the suspicion of harm to our scientific and development program."

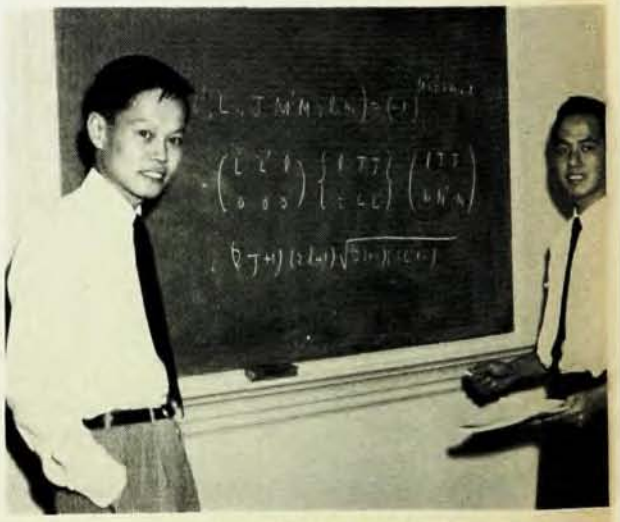
Dr. Killian has announced that during his leave of absence from MIT the Institute will be headed by Chancellor Julius A. Stratton, who has been appointed acting president by the MIT Corporation.

President Eisenhower also directed Secretary of Defense Neil H. McElroy to give the Pentagon's guided missile director, William M. Holliday, "all the authority that the secretary himself possesses in this field". He further announced that he will propose that Congress "remove legal barriers to the exchange of appropriate technological information with friendly countries" and authorize US support for "a scientific committee organized within NATO to carry out an enlarged Atlantic effort in research".

Awards and Grants

Reproduced on this month's cover is a page from a nuclear theorist's scratch-pad representing the germ of an idea that challenged a basic principle of physics and, after being confirmed last January, has received swift recognition in the form of the earliest available Nobel Prize award. The notes are those of T. D. Lee of Columbia University and were made in the summer of 1956 when he and C. N. Yang of the Institute for Advanced Study shared an office at Brookhaven National Laboratory.

While considering the strange case of the unstable K mesons (τ^+ and θ^+), which appear identical in mass



Nobel Laureates Yang and Lee (*photo by Alan W. Richards*)