of miles in space; such space shots, including, of course, the instrumentation to send back data, are theoretically possible today and are expected to be practical within a few years.

## Civil Service Raises Pay for Scientists and Engineers

On the basis of findings of its annual survey of government and industry experience in the recruitment of employees in shortage-category fields, the Civil Service Commission has announced that minimum pay rates for engineering and certain kinds of physical-science positions will be raised to the top of grades GS-5 and GS-7-\$4940 and \$5880, respectively. The higher rates, for new employees and for employees now holding such jobs, become effective with the first pay period in May. The commission is authorized to raise pay rates within Classification Act pay grades when the government is at a competitive disadvantage with private employers and the federal need is acute.

The adjustments are expected to aid the government in recruiting about 3200 engineers and 1200 scientists during the next year, at an estimated additional cost of \$1,980,000. Approximately 8700 engineers and scientists now serving in affected positions will have their pay adjusted under the new formula, at an estimated first-year additional cost of \$2,214,900. Current rates of pay for these positions are \$4490 at grade 5 (4th step) and \$5430 at grade 7 (4th step).

The CSC's latest study showed a decrease in acceptance rates by persons offered federal employment in these shortage-category occupations and a widened gap between industry's median starting pay and the rates government agencies could offer for these jobs. Evidence also is accumulating that private employers will offer still higher salaries to June 1960 graduates in these shortage fields.

## **Recruitment Drops in Both Areas**

While the 1959 engineer-scientist acceptance rate—the percentage of acceptance of firm offers of appointment—decreased for both government and industry recruitment, the decrease was greater for government than for industry. Industry's acceptance rate in 1959 decreased only 3 percent—from 46 percent in 1958 to 43 percent in 1959; government's acceptance rate decreased by 5 percent—from 40 percent in 1958 to 35 percent in 1959.

The decrease in acceptances of federal employment was sharper for engineering positions (from 37 percent in 1958 to 31 percent in 1959) than for physical-science positions (from 49 percent in 1958 to 45 percent in 1959). The commission points out that the government's recruiting efforts actually were less fruitful than the statistics reflect because many of the top-quality engineering and physical-science candidates interviewed by federal recruiters indicated their disinterest, primarily because of salary, even before an offer of employment could be made and therefore were not recorded in the acceptance-declination tabulation.

Positions covered by the CSC action include all professional engineering positions in grades 5 and 7 and positions at those grades in the following Classification Act occupational series: architecture, landscape architecture, patent examining, patent adviser, physics, geophysics, chemistry, metallurgy, astronomy, meteorology, geology, geodesy, actuary, mathematics, oceanographer (physical), mathematical statistician, and technologist (eight specific specialties).

## Academy Radiation Committees Issue Reassuring Reports

The National Academy of Sciences-National Research Council has issued a set of summary reports by its six Committees on the Biological Effects of Atomic Radiation, supplementing the committees' original reports published in 1956. An accompanying "Report to the Public" states, in an introduction: "The steady accumulation of scientific information since 1956 has not brought to light any facts that call for a drastic revision of earlier recommendations."

The "Report to the Public" also notes, among a number of considerations that prompted publication of the supplementary reports, the broadening uses of atomic radiation for peaceful purposes and the intensifying public concern with the resulting hazards. Some of the committees' findings are as follows.

There is some new evidence that genetic effects from low radiation doses may be less than previously estimated.

The committee continues to recom-

mend that the average gonadal dose for the general population during the first 30 years of life not exceed 10 roentgens of man-made radiation, and that it be kept as far below this level as is feasible.

There is experimental evidence to show that radiation-induced tumors do not begin to develop immediately after the radiation has been absorbed.

No new evidence has appeared to show that nuclear tests have affected the weather.

The significant long-range effects of the presence of radioactive isotopes in foodstuffs have yet to be determined.

The disposal of radioactive wastes has not resulted in any significant hazard to the public, its environment, or its natural resources.

There is nothing inherent in the radioactive-waste control problem requiring restriction of the nuclear-energy program, provided adequate measures are taken to protect public health and safety.

Present indications are that limited quantities of radioactive materials can be safely released in the oceans.

The six academy committees cover the fields of genetics, pathology, meteorology, agriculture and food supplies, disposal and dispersal of radioactive wastes, and oceanography and fisheries. Appointed in 1955 by Detlev W. Bronk, president of the National Academy of Sciences, they were asked to conduct a continuing appraisal of the effects of atomic radiations on living organisms and to identify questions on which further intensive research was urgently needed. From the outset, the work of the committees has been supported by funds provided by the Rockefeller Foundation.

## AAAS Theobald Smith Award in the Medical Sciences

The Theobald Smith Award of \$1000 and a bronze medal, which has been given yearly since 1937 (except for a lapse during the war years) by Eli Lilly and Company of Indianapolis, under the auspices of the American Association for the Advancement of Science, will be given at the association's 127th meeting in New York, 26–31 December. Travel expenses will be paid by the donors to enable the recipient to receive the award in person.

Nominations are now being requested for the award. They may be made by