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 recommend 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

fellows of the AAAS and should be sent to the Secretary of the Section on Medical Sciences, Dr. Allan D. Bass, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville 5, Tenn.

The prize is given for "demonstrated research in the field of the medical sciences, taking into consideration independence of thought and originality." Any investigator who was less than 35 years of age on 1 January 1960, and is a citizen of the United States, is eligible. The research is not to be judged in comparison with the work of more mature and experienced investigators.

Nominations must be received before 1 September. All nominations should be accompanied by: (i) six copies of a two-page summary in the form of a letter of nomination which details the importance of the candidate's work; (ii) six copies of any manuscripts ready for publication; (iii) six copies each of reprints of the candidate's more important published articles; and (iv) six copies of a biographical sketch of the candidate.

Recent recipients of the award have been: 1953, Irving M. London, Albert Einstein College of Medicine; 1954, Winston H. Price, Johns Hopkins University; 1955, Robert A. Good, University of Minnesota School of Medicine; 1956, Oscar Touster, Vanderbilt University School of Medicine; 1957, Paul Talalay, University of Chicago; 1958, Albert Sjoerdsma, National Heart Institute; and 1959, William F. Scherer, University of Minnesota Medical School.

High-Altitude Research Facilities Available

The National Science Foundation has made a grant to the University of Denver to assist in the maintenance of the Inter-University High Altitude Laboratories. The grant assures the availability to U.S. scientists of the laboratory facilities at the top of Mount Evans, Colorado (elevation 14,150 feet) and those at Echo Lake (elevation, 10,700 feet). The University of Denver administers the laboratories for the member institutions of the Inter-University High Altitude Laboratory Association (Massachusetts Institute of Technology, University of Colorado, and University of Denver).

The NSF grant makes it possible for scientists of nonmember institutions to use the facilities for a nominal charge. Inquiries should be addressed to Dr. Byron E. Cohn, Chairman, Department of Physics, University of Denver, Denver 10, Colo.

Those interested should note that the laboratory at Mount Evans is accessible from July through September. The Echo Lake laboratory provides living and research space throughout the year. Inquiries should be made at the earliest possible date.

College Faculty Salaries and Student Costs Both Rising, Government Study Shows

Average salaries for full-time faculty members in 4-year undergraduate colleges have risen 10.6 per cent during the past 2 years, to an average of $6810 in the current academic year, the U.S. Office of Education recently announced. In 1957–58, the average was $6160. In 1958–59, it was $6490.

Figures for the 3 years are not precisely comparable because some colleges failed to answer the survey questions one or more times during that period. While approximately 1200 of the 1940 colleges and universities furnished information in 1957–58, more than 1400 responded in 1959–60. Institutions covered in the latest survey account for 91.1 percent of the enrollment in public institutions and 80.4 percent of the enrollment in private institutions.

For all institutions of higher education the rate of salary increase has averaged slightly less than 5 percent in each of the past 2 years. However, during this period increases have been greater (8.2 to 13.5 percent) in private institutions than in public ones.

The average salary in 4-year public institutions in the current academic year is $7040, an increase of 8.8 percent over the $6470 of 1957–58. The average salary in 4-year private institutions in the current year is $6510, a 14.2-percent increase over the $5700 of 1957–58.

In junior colleges and other 2-year institutions, the average salary for full-time faculty members is $6110 in 1959–60, an increase of 7.6 percent over the 1957–58 figure of $5680. In public 2-year institutions, the current average salary is $6550, up 7.2 percent from the $6120 of 1957–58. The figure for private 2-year institutions, $4640 this year, is an increase of 14.6 percent over the $4050 of 1957–58.

The study, which was conducted by W. Robert Bokelman, chief of the Business Administration Section of the Division of Higher Education, also shows a slow but perceptible increase in costs for full-time students in both public and private institutions of higher education. For example, resident students in private institutions paid an average tuition fee of $615 in the current academic year, an increase of 16.9 percent over the 1957–58 average of $526. Resident students in public institutions paid an average of $168 this year as against $155 in 1957–58.

Average charges for dormitory rooms for students is $168 for men and $174 for women in public institutions this year as against $155 for men and $160 for women in 1957–58. In private institutions, male students today are paying an average of $201 and women students $220 for dormitory rooms. In 1957–58 the figures were $182 for men and $194 for women.

Political Discrimination in Science Activities Opposed

Recently the governing board of the National Academy of Sciences–National Research Council issued the following "Resolution on Political Non-Discrimination in International Scientific Activities."

1) The Governing Board of the National Academy of Sciences–National Research Council desires that the United States maintain its intellectual and scientific leadership in international activities and emphasize and implement its role as a friendly host to international scientific meetings.

Meetings of international scientific bodies make a positive contribution to national security and welfare; they contribute to scientific progress in this country; they express the high value that the United States as a nation places on intellectual and scientific pursuits; they give scientists of other nations a first-hand opportunity to become acquainted with our scientific and cultural contributions to the welfare of all peoples.

2) The opportunity that an institution has to be a friendly host to an international scientific organization depends upon its ability to receive officers