

EDUCATION

Strengthen Education

The President's Science Advisory Committee has published a report in which several recommendations are proposed for improving education in all fields in the United States.

PRESIDENT EISENHOWER has called for the strengthening of all education in the United States, particularly in science and engineering.

Releasing an "excellent statement" of U. S. educational goals and needs, the President stressed the importance of raising the standing of teachers in their communities.

Higher salaries are a first requirement, Mr. Eisenhower said, but the great importance of what teachers do should be recognized. They should be given the "encouragement, understanding and recognition" that will help to make the teaching profession attractive to increasing numbers of first-rate persons.

The 33-page report was issued by the 17-man President's Science Advisory Committee, headed by Special Assistant, Dr. James R. Killian Jr. It was prepared by a nine-man panel on science and engineering education, with Dr. Lee A. DuBridge, president of California Institute of Technology, as chairman.

Doubling the current annual investment in education is probably a "minimal rather

than an extravagant" goal, the scientists concluded. To reach this goal, the report made 22 recommendations.

Of all the concrete actions called for, the most urgent is revision of course content and provision of teaching aids for each year of school.

To reach these goals, the report noted four major areas needing specific and urgent attention throughout the educational system. These are the curriculum and content of courses, the quality and effectiveness of teachers, the recognition and encouragement of students, and the development of intellectual leadership. The 22 recommendations for action fell into one of these four categories.

Included under the goal of lifting student performance to higher levels of excellence by offering greater motivation were specific recommendations for:

1. A nation-wide effort to pay more attention to the academically talented students, those in the upper 20% of their group, and to the unusually gifted students, in the upper three percent.

2. Necessary help in financing the high school education of such gifted students, as well as in college and graduate school.

3. Programs of prizes and scholarships being extended into the high school level so that students even in remote and rural communities are enabled to attend high schools providing opportunities commensurate with their abilities.

4. The combining of public and private agencies to offer on a national basis a much larger number of prizes than now exist to high school students for unusual intellectual achievement in important fields.

The U. S. at present spends approximately \$15 billion a year on formal education. Increasing this by a fraction of one percent, during a period of only a few years, would mean an increase in the efficiency of the teaching process that would yield benefits out of all proportion to the cost.

The report concluded that:

1. "Americans should attach greater value to intellectual excellence.

2. "Every school and college should re-examine its curriculum to make sure that in every aspect it is giving adequate challenge to the intellectual capacities of its students.

3. "We should do far more than we are now doing to enhance the prestige of the teacher and to provide him with more effective support in his efforts to improve the effectiveness of his teaching.

4. "We should move much further in the direction of adapting our educational programs to the widely varying competence of students, and seek especially to meet the needs of the most gifted students.

"We should improve our scientific education at all levels, attempting to give better understanding of science to the non-scientist as well as to discover and stimulate more individuals who have the talents to become scientists and engineers."

Science News Letter, June 6, 1959

METEOROLOGY

Propose Finding Density At 300 Miles by Balloon

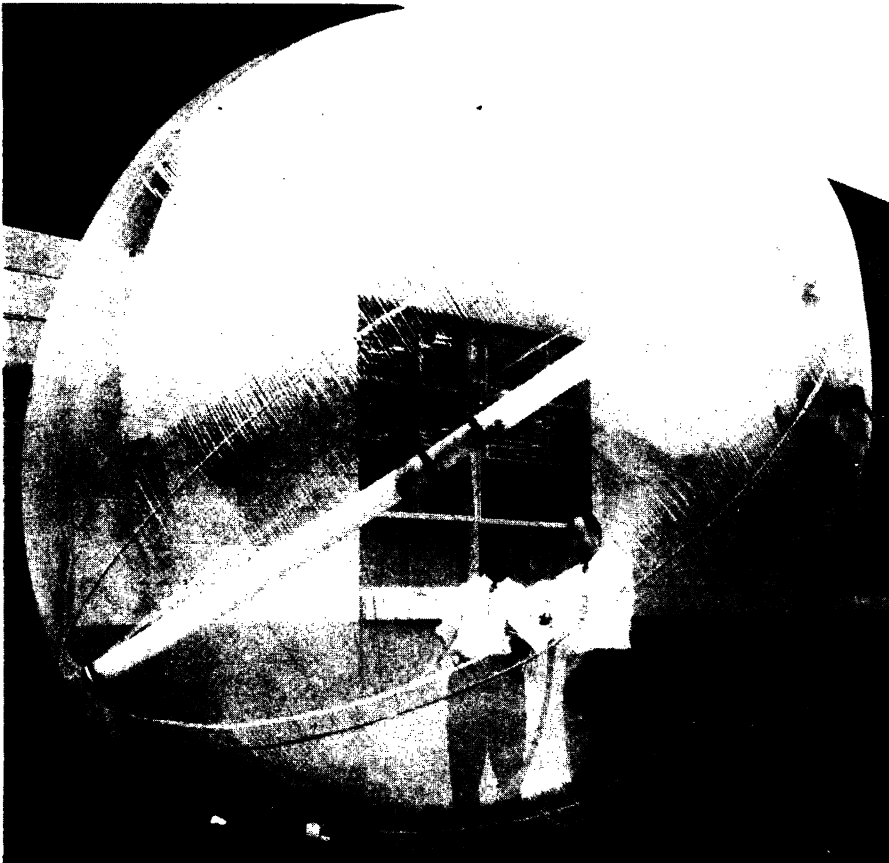
A SCHEME for finding the density of the atmosphere 300 miles above the earth from information relayed back using a balloon ejected from a two-stage rocket has been devised.

As a research project for the Air Force Cambridge Research Center, Bedford, Mass., scientists at Arthur D. Little, Inc., have developed an inflated sphere with instruments and radio system to measure density drag up to the 300-mile height.

The rocket's first stage will be an Aerobee research rocket, the second a solid propellant Sparrow rocket. The 18-pound payload is a mylar plastic sphere that balloons to nine feet in diameter when ejected and inflated.

Instruments and telemetry equipment are contained in hollow plastic strut inside the balloon. The balloon will be released at about 60 miles, then follow the trajectory of the rocket up to the zenith of 300 miles. This free flight is expected to take between seven and eight minutes.

Science News Letter, June 6, 1959



BIG BALLOON—David A. Knapton and David B. Lull, who heads the density project, are shown inflating the plastic balloon.