

GENERAL SCIENCE

Science Budget Boosted

All time high Federal research and development budget submitted for fiscal 1962. Space research, rocket and missile development account for some of the boost.

► FEDERAL RESEARCH and development programs for the 1962 fiscal year are estimated at an all-time high of \$9,443 million in the budget message sent to Congress by former President Eisenhower. This is an increase of \$771 million over estimated expenditures for fiscal 1961, which ends June 30.

Space research, rockets and missile development are largely responsible for the budget boost; but more than half of the total amount, \$6,274.8 million is for research under the Department of Defense.

Missile development, including an emphasis in the field of defense against ballistic missiles under the Army's Nike-Zeus antimissile project, continues in 1962 to represent the largest area of activity and expense.

But military research, both applied and basic, will be increased in 1962 in such areas as atmospheric research, materials research, high-energy physics, biomedical research, and the physics of matter.

While amounts estimated for military astronautics show an increase of \$72 million over 1961, they continue to reflect reliance on the National Aeronautics and Space Administration for certain space technology programs, particularly in the field of large booster.

Almost \$200 million more than in 1961

have been allocated for NASA research and development programs. The increase is planned for further space exploration with higher performance vehicles; continued work on large and complex orbiting astronomical and geophysical observatories; advanced passive and active communications satellites; increased tracking networks; and the operational orbital phase that the Mercury manned space flight is scheduled to begin this year.

Scientific exploration below the earth, in the oceans, also will be supported by larger funds. A total of \$81.6 million will provide increased oceanographic research and surveys. It also will help maintain the National Oceanographic Data Center which will undertake its first full year of operation.

The budget also shows an increase in the amount to be spent on health, education and welfare, with the bulk of the increase going to the National Institutes of Health for basic medical research.

The Department of Commerce will expand its budget from an estimated \$39 million in 1961 to \$68.2 million in 1962 for research and development.

Included in this figure will be an expansion of plans to utilize data from meteorological satellites for the Weather Bureau's studies of weather processes and

development of improved forecast techniques. Also included are an expansion of programs at the National Bureau of Standards.

National Science Foundation funds, generally used for the financing of promising basic research proposals, are \$30 million more than 1961 estimated expenses and almost double the amount expended in 1960. The 1962 estimate is \$119.4 million.

In addition to direct support of research, the National Science Foundation is responsible for studying the nation's research effort and recommending research and education policy in the sciences to be adopted in its support program by the Federal Government.

The largest single program of the Foundation is the support of institutes to supplement the training of science teachers. In 1962, the Foundation will allocate about \$37 million for this purpose to assist approximately 33,600 teachers.

Other training grants also are supplied by research and development funds from such agencies as the Atomic Energy Commission, Department of Health, Education and Welfare, the Department of State and Department of Defense. These include research assistantships to graduate students, fellowships for pre-doctoral and post-doctoral studies, and specialized fellowships and traineeships.

The latter are awarded by the Federal Government primarily to provide advanced education and training for individuals who have completed their basic professional education. The AEC and HEW have the largest programs in this area. In fiscal 1962, the AEC will award 283 specialized fellowships and traineeships in such fields as nuclear science and engineering, health physics, radiological physics and industrial health and medicine. The HEW will award 1,441 such fellowships in medical specialties in 1962.

The fiscal 1962 budget for Federal research and development programs is approximately one-ninth of the total budget of \$80.9 billion.

• Science News Letter, 79:51 January 28, 1961

ORNITHOLOGY

Hornbill Walks in Leash To Help Chase a Cold

See Front Cover

► THE NATIONAL ZOO Abyssinian hornbill likes to take a walk on a leash when it has a cold. Its keeper said the exercise the bird gets then seems to do the most good in helping to chase the cold away.

The bird, seen on the cover of this week's SCIENCE NEWS LETTER, stands one and a half foot high. Its feathers are a dark brown, and the sac under the bill is a reddish color.

The Abyssinian hornbill eats small animals such as frogs, mice, lizards and insects. It may live to be about 30 years old. If angry, the hornbill at the National Zoological Park, Washington, D. C., lets out a growling sound like a lion, but not as loud, its keeper said.

• Science News Letter, 79:51 January 28, 1961



FIRST OF NEW GENERATION—The Navy HUL-1M utility helicopter is called the first of a new generation of turbine-powered light helicopters. The HUL-1M is the first aircraft to be powered by an Allison T-63 250 shaft horsepower turbine engine. It is now being tested at Bell Helicopter Company's plant at Fort Worth, Tex.