

## SCIENCE FAIR HEADQUARTERS

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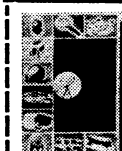
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Most of NASA's spaceport facilities work is completed. There's still a planned increase in the budget, though, for a pair of 210-foot antennas for the deep space tracking network, in Canberra, Australia, and Madrid, Spain. The first 210 is already in operation at Goldstone station in California.

Last year, says NASA Administrator James Webb, 94 percent of every NASA dollar went outside the agency to universities or industry. This figure has hovered between 90 and 95 percent for several years. But, warns Webb, if the cost-cutters keep cutting, this percentage could drop as low as 80 to 85 percent, with NASA research centers taking over more and more of the work that has been keeping the space industry rich.

### SCIENCE FOUNDATION

#### New home for Arecibo

Mathematicians, high energy physicists, some chemists and astronomers, now comfortably supported by the Department of Defense, will shortly be in need of a new home. Many of them are expected to come rapping on the door of the smaller—but currently more willing—National Science Foundation.

For reasons of its own, the Defense Department has decided that the pure research programs in these areas, many of which adhered to the defense establishment in the days when nobody else was supporting basic research, are no longer appropriate as repositories for defense dollars.

The deep-dish radio telescope at Arecibo, in Puerto Rico, is one such installation; the cryogenic accelerator at Stanford University is another. The length of the list is still unknown.

It has been determined, however, that there will be no automatic assumption of responsibility by any agency for Defense's castoffs. Defense, the National Science Foundation and the Atomic Energy Commission are currently in close negotiation, in an effort to insure that worthy research projects don't fall between the cracks. But any researcher cut off by Defense is going to have to justify his project in terms of the needs of the Foundation, AEC, or any agency which might be willing to take on the project's support.

So far, in a budget marked by more cuts than increases, NSF has found \$1 million as a first step in the takeover of the astronomy done at Arecibo—Defense will continue to support the aeronomy there—and pieces of a \$26 million increase in NSF support for research projects are available for some of the physics, math and other projects expected to find themselves at loose ends.

All won't get in, of course; presum-

ably the good ones will. The Science Foundation regularly receives between 8,000 and 9,000 proposals for project grants a year, and funds about half of them. Next year, an increase in funds from the present \$172 million to \$198 million will permit the support of an extra 250 projects, and may provide a home for some of Defense's castoffs.

In a static budget proposal that nudges the \$500 million limit traditionally imposed on the Foundation by Congress, the support of project grants is virtually the only major category due to grow.

### NSF Research Grants (in millions)

	1968	1969
Astronomy	\$ 5.8	\$ 7.4
Atmospheric sciences	7.3	8.8
Biology (inc. IBP)	41.5	43.6
Chemistry	18.0	20.5
Earth Sciences	8.0	9.2
Engineering	19.6	21.0
Mathematics	13.1	14.5
Oceanography	19.2	24.0
Physics	24.2	31.0
Social Sciences	15.3	18.0
TOTALS	\$172.0	\$198.0

It is growing at the expense of such once-favored programs as the institutional support program, of which the University Science Development program was a much-vaunted part. University Science Development was the bellwether of the interagency Centers of Excellence program, designed to increase the quality of already good research institutions, adding them to the small list of greats.

NSF's piece of the Centers of Excellence program will drop next year from \$29 million to \$20 million, while such companion institutional programs as Departmental Science Development (\$12 million) hold steady.

"We had to make choices," says an official, "and the institutional programs generally entail some creation of new facilities." This was not the budget for the inclusion of new facilities: laboratory construction support was cut back from \$19 million to \$10 million, and a start on one major facility, the proposed radio astronomy array for Owens Valley, Calif., has been totally deferred to a fatter year. Resurfacing of the giant dish at Arecibo is also deferred.

Areas selected for moderate increases include support of and research on computers for research and education, up \$2 million to \$23 million, and institutional grants to undergraduate institutions, raised from \$10 million to \$12 million.

Construction of the Kitt Peak National Observatory is being completed, and construction of the Cerro Tololo Inter-American Observatory in Chile is proceeding with the help of some outside money.