

avoid the financial reverses that the atomic power program, for example, has experienced. One of the principal strengths of space is that no vested interest is against it. Labor and industry are for it, since it means contracts and jobs; the farm interests are at worst indifferent to it, and educational interests are growing increasingly aware of its potential as a source of money. NASA officials readily concede that they have not been aloof from political realities in selecting sites for installations and in assigning contracts. Political considerations, they say, come last, but they are not absent. The \$90 million manned spacecraft center under construction near Houston sits next to the congressional district of Albert Thomas, who is chairman of the appropriations subcommittee that passes on NASA funds. The majority of NASA installations are in the south, where they are doing an invaluable job of upgrading the technological skills of long-neglected regions; they are also helping win the favor of a large bloc of congressmen who might tend to support a call for economy.—D. S. GREENBERG

### Civil Defense: Administration Says Poll Shows Heavy Public Support

In one of its few pronouncements on civil defense in recent months, the Administration has released a public opinion poll which shows overwhelming support for the proposed community fallout shelter program.

The poll was designed for the Office of Civil Defense by Michigan State University and was conducted by Elmo Roper Associates. The findings conflict sharply with virtually every poll that congressmen have conducted among their constituents. A review of a dozen of these congressional polls shows that regardless of their wording and the political complexion of the recipients, the results were overwhelmingly against the fallout shelter program.

The Office of Civil Defense poll found 77 percent in favor of the Administration's program, which would provide matching funds for the construction of shelters in public buildings. The issue is moot at this point, since congressional action on the community shelter program has been sidetracked and is likely to remain so for the remainder of the session.—D.S.G.

## Announcements

The National Bureau of Standards, in cooperation with universities in the Washington, D. C., area, has instituted a **work-study program** which will allow graduate students to complete courses for advanced degrees in science while employed by the bureau and earning 70 percent of a junior scientist's salary. Beginning in September, students with a B.S. degree in physics, chemistry, mathematics, or mechanical or electrical engineering, may work in an NBS laboratory 3 days and attend classes on alternate days; summer employment will be on a full-time basis. It is expected that the course work can be completed in 4 years, after which participants may complete thesis research at the bureau or the university.

Suitable part-time course programs are available in physics, chemistry, and mechanical engineering at Catholic University, and in physics at the University of Maryland. Payment of tuition and fees will be the responsibility of the participants. (Ruth B. Armsby, Personnel Division, NBS, Washington 25)

A 3-man **self-propelled deep sea vehicle**, capable of operating at a depth of 12,000 feet, will be built by Westinghouse Electric Corporation as its own laboratory facility for marine studies. Designed by Jacques-Yves Cousteau, director of the Institut Océanographique at Monaco and developer of the Aqualung, the 7-ton spherical vessel, to be called *Deepstar*, is 6 feet in diameter and has remotely controlled mechanical arms. The craft, capable of traveling about 3½ miles per hour over a range of 20 nautical miles, will rise and descend almost vertically. Changes in attitude will be effected by pumping mercury from one tank to another. The maximum period of submergence will be 24 hours, the effective life of the propulsion batteries.

The outer spherical portion of *Deepstar* will be fabricated and tested in Europe; final assembly, scheduled for completion in late 1963, will take place in the United States.

The Birla Institute of Technology, Ranchi, India, plans to establish a **rocketry department** to undertake research in the science and technology of rockets. A small two-stage rocket is scheduled to be built and launched **late** this year.

Australia's Commonwealth Scientific and Industrial Research Organization has announced plans to construct a **radio heliograph** to take detailed radio pictures of the sun. The instrument, financed with the assistance of a \$550,000 grant from the Ford Foundation, will consist of 100 saucer-shaped aerials, each measuring 42 feet in diameter, which will be arranged in a 2-mile-wide circle. Receivers and computers will combine the waves received by the dishes to give a motion picture of explosions and storms in the sun's atmosphere, and of accompanying radio flares that occur near sunspots.

Although the exact location of the instrument is yet to be decided, tentative plans call for construction at Parkes, N.S.W.

### Grants, Fellowships, and Awards

Applications are being accepted for the 1963-64 Glorney-Raisbeck fellowship in the **medical sciences**, to be awarded for 1 year of research and study in any field of medicine or its allied sciences. The \$6000 fellowship is renewable for 2 years on a yearly basis. Applicants must have the M.D. degree, and should have an institutional appointment in the United States; preference will be given physicians from the New York area. Deadline: *1 December*. (Aims C. McGuinness, New York Academy of Medicine, 2 E. St., New York 29)

The State University of New York is offering two-year fellowships for post-residency research training in **psychiatry**, leading to the Doctor of Medical Science degree, available to M.D.'s who have completed 3 years of resident psychiatric training. Fellowships will amount to \$6000 for the first year and \$7000 for the second, and may be supplemented by stipends for special research or teaching.

Candidates who have completed only 2 years of residency will take the final year of residency at Kings County (N.Y.) Hospital concurrently with this program, receiving the regular third-year residency stipend in addition to the fellowships. Deadline for the 1963-64 academic year: *1 February 1963*. (Office of Admissions, State University of New York, Downstate Medical Center, 450 Clarkson Avenue, Brooklyn 3, New York)