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SCIENCE

The Administration of NASA

The retirement of James E. Webb as Administrator of the National Aeronautics and Space Administration has evoked a flurry of congressional and newspaper tributes to his leadership of the space agency for the past 7½ years. Most of the compliments have been directed to the achievements in space that preceded and led up to the recent successful mission of Apollo 7. But not all have had this emphasis. Senator Holland spoke of "an outstanding accomplishment of management," and Congressman Albert hailed Webb as "one of the finest administrators in the history of this country." It is the administrative history of NASA that Webb himself emphasized in an address at Harvard a few days before his retirement. He spoke not of what NASA had done but of how it had been accomplished. This emphasis is consistent with his long-standing personal interest in organizational problems and administrative methods, his service to the American Society for Public Administration and the Municipal Manpower Commission, and his policy of opening NASA's offices and records to study by advanced students who wanted to learn how NASA worked.

In terms of numbers of dollars or of men, NASA has not been our largest national undertaking, but in terms of complexity, rate of growth, and technological sophistication it has been unique. Involved have been a government headquarters and widely dispersed set of laboratories and technological facilities; some 20,000 industrial contractors, subcontractors, and suppliers; almost 400,000 nongovernmental workers; and faculty members and students at 200 universities. Keeping all of these parts—often working right at the edge of technological knowledge and capacity—finely tuned and in close harmony has been an organizational achievement of high order.

How NASA accomplished its missions should be of interest to the planners and directors of other great national undertakings. Many of the large problems that confront us—for example, health care, the control of pollution, and the remaking of our urban living and working accommodations—differ from those of the space program in focusing on people rather than on rockets and space vehicles. And already there are protests against thinking of social problems as engineering tasks or in terms of technological models. True enough, human welfare is the objective, and the customs, the values, and even the idiosyncrasies and prejudices of man must influence means as well as ends. But the social programs, like the space program, call for management structures linking government, industry, and universities. The new programs will involve research, planning, coordination, and testing. And they will be bothered by multiple divisions of responsibility, conflicting ambitions and interests, decisions to use existing facilities or to assemble new ones, multiple channels of communication and authority, and the problems of building up and of phasing down as priorities shift to new targets or as new opportunities open up. In all of these respects NASA has had extensive and recent experience; its procedures have been deliberately thought out; and its records are available.

Ever since the space program began to take shape there has been talk of technological spin-offs. It may turn out that the most valuable spin-off of all will be human rather than technological: better knowledge of how to plan, coordinate, and monitor the multitudinous and varied activities of the organizations required to accomplish great social undertakings.—DAEL WOLFLE