

NASA keeps informed of the research work being performed in other agencies through a variety of interagency groups designed to provide forums for the discussion of and the exchange of data on research efforts. These include efforts of the Aeronautics and Astronautics Coordinating Board and its subsidiary panels, the Office of Science and Technology, the National Science Foundation, the Federal Council on Science and Technology and specific interagency groups working on such problems as oceanography and weather. In addition it uses the ability of the individual scientist and engineer to keep himself currently informed about advances or work under way in his discipline through personal contact, professional meetings, scientific and technical information systems, scientific journals, and other professional contacts and activities. In addition, NASA maintains a highly effective scientific and technical information program to provide current technical information to its own staff, and also to make the results of NASA's own technical programs rapidly available to scientists and engineers in industry and the universities.

The question of what criteria are used by NASA to determine whether NASA should perform work inhouse, by contract, by universities, or by another government agency really depends on a set of complex management factors which must be appraised on a case-by-case basis. There is no set of criteria which are followed in every instance. There are, however, several general policies which NASA follows as a basis for decision-making:

1. NASA's statutory charter, the National Aeronautics and Space Act of 1958, requires us to make "the most effective utilization of the scientific resources of the United States." In implementing this policy, NASA has placed reliance on universities as the principal source of scientific capability in the space program.

2. NASA has conformed to applicable policies of the Executive Branch, important among which is the Bureau of the Budget's Circular A-76, which provides guidelines "in furtherance of the Government's general policy of relying on the private enterprise system to supply its needs." NASA does rely on industry for the performance of the great bulk of its development, fabrication, and operational support of hardware systems.

3. NASA will maintain strong inhouse Civil Service technical competence in order to define our technical goals and objectives and control our technical programs. We will also maintain strong management and administrative competence in order to protect the government's interests, and properly control the expenditure of government funds.

Beyond these basic policies, each decision as to whether to perform work inhouse, by contract, by universities, or by another government agency must be based on a thorough evaluation of all management considerations such as the following:

1. Where the best capability is.
2. Whether that capability is really available.
3. The relative cost of each alternative.
4. Urgency, or the need to have a result by a certain time.
5. Whether capability is complete or must be built up.
6. Need to preserve inhouse capability.
7. Workload balancing.
8. Government laws, regulations, and policies.
9. Need to apply NASA management and technical capability to the major mission requirements.

*Question No. 3.—In performing work for industry, you say that NASA charges for "normal" costs of the work. How does this compare with the full-cost recovery policy of the Atomic Energy Commission? What effect would a full-cost recovery policy have, in your opinion, upon private use of NASA facilities?*

*Response.*—When the accounting practices underlying the NASA and AEC policies for charging industry for use of agency facilities are examined, we find that they are essentially the same. NASA develops a schedule of user charges for each of its facilities where industry use is desired. This user charge includes the normal cost of doing each specific activity. Both NASA and AEC follow the policy of requiring users to bear any special costs—such as the cost of special equipment peculiar to the user's work—which are necessary.

*Question No. 4.—In your testimony you stated that in the broad range of science and technology, there should be no "end" to a laboratory's mission or purpose; that the best laboratories of all kinds repeatedly demonstrated the ability to go through continuous renewal of objectives in order to stay alive and*