

## GEORGE C. MARSHALL SPACE FLIGHT CENTER

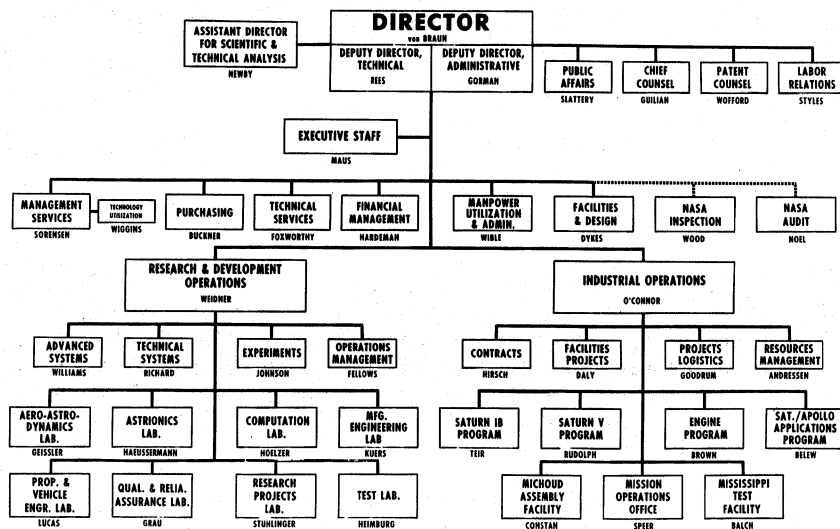


FIGURE 2

of our organization. They are charged with the responsibility for complete control of their programs. The staff elements, i.e., Contracts, Facilities Projects, Projects Logistics, and Resources Management Offices, spend about 20 percent of their time and capability in a staff capacity, while the other 80 percent is spent in working with the Program Managers in all of their functions—contracting, logistics, and so forth.

In our Mission Operations Office is a group of 42 people who primarily support the Program Managers in the launch and flight operations chores and who interface very closely with Kennedy Space Center and the Mission Control Center at Houston.

Here is a pictorial (fig. 3) of how we actually manage our programs and our interfaces with the contractors, Marshall's Research and Development Operations, and other NASA Centers. There are two or three points I would like to make here. One of our obligations and capabilities in program management is to use the Marshall R&DO technical competence which exists in depth to the extent of some 4,500 personnel. The point I would like to make is that we really have a "swinging-door" operation through R&DO where I, the Program Managers, and the Project Managers work horizontally and vertically with R&DO staff members and down into the branch level of the laboratories. There is good technical competence in depth in the offices of the Program and Project Managers, but the Reservoir of scientific and engineering support is supplied by Research and Development Operations.

Next, in our day-to-day activities in managing the contractors, which is our primary activity, since over 90 percent of our business is outside, we work basically through our resident managers. This proce-