*"The scientific data gleaned from the aircraft project, however, soon proved useful when the Laboratory undertook the design of a molten-salt reactor for electric power production."*

By 1953, the Laboratory had three reactors operating, two nearing completion, and several others in various stages of planning and development. In addition, it had high-speed computers, high-energy cyclotrons, and Van de Graaff particle accelerators. Equally important, the Laboratory had succeeded in assembling an aggressive research staff that worked with a sense of urgency rivaling that of the war years.

As the Laboratory expanded its reactor and shielding programs in response to the nuclear aircraft project and acquired the Y-12 Plant's research organization in the early 1950s, administrative realignment became necessary. Electronics experts from the Physics Division, for example, moved into an Instrumentation and Controls Division, and the Shielding group became a separate Neutron Physics Division (renamed the Engineering Physics Division, and later the Engineering Physics and Mathematics Division). The Mathematics Section also became an independent division. Similar organizational changes took place in chemistry, reactor technology, and other Laboratory research pursuits.

By 1953, Laboratory personnel numbered 3600, more than double the wartime peak; the staff was divided into 15 research and operating divisions. "I am sometimes appalled by the size and scope of our operation here," Weinberg admitted privately to Wigner. "It seems that we have become willy-nilly victims, in a particularly devastating way, of the big operator malady."

In response, Wigner advised Weinberg to appoint deputy and assistant directors to assist central management. Weinberg accepted the advice. John Swartout, director of the Chemistry Division, became Weinberg's assistant director in 1950 and deputy director in 1955. For administrative functions, Swartout became "Mr. Inside," while Weinberg was "Mr. Outside." Other assistant directors of the early 1950s included Elwood Shipley, Charles Winters, Robert Charpie, Walter Jordan, Mansell Ramsey, Ellison Taylor, and George Boyd.

"There is," observed Weinberg, "a hierarchy of responsibility in which management on each level depends on the integrity and sense of responsibility of the next level to do the job sensibly and well." This line of responsibility from individual to group leader to section chief to division director to assistant or associate director to Laboratory director remained the prevailing administrative framework within the Laboratory during the ensuing decades.


Leaders of the Laboratory's nuclear aircraft project during a May 1957 visit to Wright-Patterson Air Force Base.