# On the frontiers of science and technology

In the early 1970s, the Laboratory completed development of new warheads for the nation's strategic missile forces and for the Spartan antiballistic missile interceptor. Livermore pushed the frontiers of what was possible in nuclear weapon design and engineering. Designers then turned their attention to modernizing NATO's nuclear forces with novel weapon designs and to exploring the use of insensitive high explosives for improved nuclear weapons safety.

Capitalizing on an emerging technology, Livermore also began a laser program and has been at the forefront of laser science and technology ever since. In 1974, Janus was built, the first of a sequence of ever-larger lasers to explore inertial confinement fusion (ICF) for national security and civilian applications. Design, engineering development, and use of the Laboratory's ICF lasers have contributed to thermonuclear weapons science, enabled new scientific discoveries, and stimulated the development of new products and processes in U.S. industry. The 1970s energy crisis helped to invigorate long-term research efforts in both ICF and magnetic fusion as well as other energy research programs at the Laboratory.