

The Technology Goes Forward

On the first anniversary of nuclear power in space, AEC Chairman Seaborg reminded the public through the press of this historic milestone for the Atomic Age. The SNAP-3A device was still operating successfully after one year, its plutonium fuel, which had half a life of 90 years, had the potential for powering a space transmitter for decades. Seaborg projected this vision of future uses for nuclear power in space:

I firmly believe that nuclear energy provides the most feasible means of accomplishing long voyages in space and many other ambitious missions of our national space program. . . .

Because of the exciting panorama of applications, the development of nuclear energy for space is most important. Mankind is only on the verge of the space age. Nuclear power will take us into this age—and close to the planets.¹⁶

High hopes and expectations in Congress still rode with nuclear propulsion and space reactor power generators. The quiet technology already had proven itself and the AEC made plans to explore other possible applications for the RTGs.¹⁷

In late 1962, NASA's ten-year forecast of potential requirements for RTGs for space missions included Interplanetary Monitoring Probes, Orbiting Astronomical Observatories, and Nimbus—a satellite system for providing 24-hour weather coverage on a global basis.¹⁸ Preliminary work on RTGs for these systems began. Meanwhile, work proceeded on the SNAP-9A that would power the Navy's operational prototype navigational satellites. In the spring of 1963 Pittman, the head of AEC's Division of Reactor Development, reported to a Senate Committee that "...our most dramatic success has been with the relatively small isotopic SNAP devices...especially suited for space applications because they are able to operate under extreme environmental conditions of temperature and electromagnetic radiations, and are not dependent upon sunlight to generate power."¹⁹ The AEC *SNAP Fact Sheet* of 1 September 1963 set down program developments to that date:

The SNAP-7 program developed "prototype isotopic units fueled with strontium-90...for the Coast Guard and the Navy for use in coast