

devote more of its developmental efforts to civilian applications of nuclear energy. According to a history of the AEC, in 1966 “the AEC budget for the first time was divided about equally between weapons and peaceful uses.”¹ Yet even the peaceful applications of nuclear energy were to face some barriers.

The radioisotopic program, a part of the overall effort to develop systems for nuclear auxiliary power for space missions, was a participant in these events. It benefitted from the plutonium produced and made available in sizable amounts by the many years of nuclear weapon development under the AEC. The space uses of isotopic power received their greatest boost from the highly-publicized missions conducted by the National Aeronautics and Space Administration (NASA), in America’s participation in the space race.

The space isotopic power program, however, has been a quiet program, somewhat shielded from evolving public concerns about nuclear power and rarely the star of the space spectacles. Space isotopic power has developed quietly because it is indeed a quiet technology. For example, it does not involve explosive power; nor does it require human interventions in nuclear processes to induce nuclear fission or fusion. It is a battery-like thermal power emanating from the natural decay of radioactive elements; when used in and applied to space missions, the technology operates far from the terrestrial environment.

The history of the radioisotope power program is basically a success story, although it is certainly not one of linear success. The program was initiated by the AEC under impetus from the Department of Defense but first went public late in that decade as part of the “atoms for peace” movement, with President Eisenhower showing an atomic battery to the world and extolling its peaceful potential uses. Subsequently, while the Defense Department supported mostly test applications of the radioisotopic power devices in space, the program reached its pinnacle of success through uses by the civilian space agency NASA.

The program never became truly big but was a vital part of larger programs while outliving its “big brothers” in the space-nuclear field. In the spring of 1961, as the first radioisotopic thermoelectric generator (RTG) space missions were about to be launched, proponents of the use of nuclear energy in space were projecting the future technologies that would enable Americans to achieve the goal set by President Kennedy—a man on the Moon by the end of the decade. They proclaimed: “Nuclear Rockets will get him there... Nuclear