

FOREWORD

On December 8, 1953 President Dwight D. Eisenhower, in his famous "Atoms-for-Peace" address, proposed that the United Nations establish an international agency which would promote the peaceful uses of atomic energy. The President's purpose was to take a small step toward adapting the atom "to the arts of peace." Within a few years his small step had grown into a number of peaceful atomic activities, among them an International Atomic Energy Agency, bilateral agreements for cooperation in peaceful atomic development, research reactors built in foreign countries, two international peaceful uses conferences, the creation of special schools with curriculums centered on nuclear technology, and the expanded use of radioisotopes in medicine, agriculture, and industry. One such peaceful use developed late in the decade was the "world's first atomic battery." Unveiled for the first time in President Eisenhower's office on January 16, 1959, the "atomic battery" was a radioisotope thermoelectric generator, a special device which converted the heat created by the natural decay of a radioactive isotope directly into useable electric power. The President was gratified to learn that the generator, developed under the aegis of the Atomic Energy Commission's Space Nuclear Auxiliary Power program, could provide sufficient power to run the instruments aboard a satellite.

Characterized as a part of "Atoms-for-Peace" programs, radioisotope thermoelectric generators did not provide power for satellites until after the nation had entered the space age. The U.S. Navy launched the first radioisotope thermoelectric generator-powered satellite on June 29, 1961, a month after President John F. Kennedy committed America to put a man on the moon. The power unit, called a SNAP 3A device, supplied electricity for instruments on a Navy navigational satellite. Despite extensive safety tests which the Atomic Energy Commission performed on the device, the Kennedy Administration had some qualms about launching the SNAP 3A device, resulting in a last-minute approval and some extraordinary effort to get the device to the launch pad on time.