

APPENDIX B

LAUNCH HISTORY OF THE U.S. RTG

DATE	SPACECRAFT	POWER SOURCE	MISSION-TYPE	STATUS
29 Jun 61	Transit 4A	SNAP-3B7	Navigational	RTG operated for 15 years. Satellite now shut down but operational.
15 Nov 61	Transit 4B	SNAP-3B8	Navigational	RTG operated for 9 years. Satellite operation was intermittent after 1962 high altitude test. Last reported signal in 1971.
28 Sep 63	Transit 5-BN-1	SNAP-9A	Navigational	RTG operated as planned. Non-RTG electrical problems caused satellite to fail after 9 months.
5 Dec 63	Transit 5-BN-2	SNAP-9A	Navigational	RTG operated for more than 6 years. Satellite lost navigational capability after 1.5 years.
21 Apr 64	Transit 5-BN-3	SNAP 9A	Navigational	Mission was aborted because of launch vehicle failure. RTG burned up on reentry as designed.
3 Apr 65	Snapshot	SNAP-10A ^a	Experimental	Successfully achieved orbital operations.
18 May 68	Nimbus-B-1	SNAP-19B2	Meteorological	Mission was aborted because of range safety destruct. RTG heat sources recovered and recycled.
14 Apr 69	Nimbus III	SNAP-19B3	Meteorological	RTGs operated for more than 2.5 years (no data taken after that).
14 Nov 69	Apollo 12	SNAP-27	Lunar Surface	RTG operated for about 8 years (until station was shut down)
11 Apr 70	Apollo 13	SNAP-27	Lunar Surface	Mission aborted on way to moon. Heat source returned to South Pacific Ocean.
31 Jan 71	Apollo 14	SNAP-27	Lunar Surface	RTG was operated for more than 6.5 years (until station was shut down).
26 Jul 71	Apollo 15	SNAP-27	Lunar Surface	RTG was operated for more than 6 years (until station was shut down).
2 Mar 72	Pioneer 10	SNAP-19	Planetary	RTG still operating. Spacecraft successfully operated to Jupiter and is now beyond the orbit of Pluto.

16 Apr 72	Apollo 16	SNAP-27	Lunar Surface	RTG operated for about 5.5 years (until station was shut down).
2 Apr 72	“Transit”	Transit-RTG	Navigational	RTG still operating (Triad-01-1X)
7 Dec 72	Apollo 17	SNAP-27	Lunar Surface	RTG operated for almost 5 years (until station was shut down).
5 Apr 73	Pioneer 11	SNAP-19	Planetary	Spacecraft recently shut down. Spacecraft successfully operated to Jupiter, Saturn and beyond.
20 Aug 75	Viking 1	SNAP-19	Mars Surface	RTGs operated for more than 6 years (until lander was shut down).
9 Sep 75	Viking 2	SNAP-19	Mars Surface	RTGs operated for more than 4 years until relay link was lost.
14 Mar 76	LES 8 ^b	MHW-RTG	Communications	RTGs still operating.
14 Mar 76	LES 9 ^b	MHW-RTG	Communications	RTGs still operating.
20 Aug 77	Voyager 2	MHW-RTG	Planetary	RTGs still operating. Spacecraft successfully operated to Jupiter, Saturn, Uranus, Neptune and beyond.
5 Sep 77	Voyager 1	MHW-RTG	Planetary	RTGs still operating. Spacecraft successfully operated to Jupiter, Saturn and beyond.
18 Oct 89	Galileo	GPHS-RTG	Planetary	RTG still operating. Spacecraft orbiting around Jupiter.
6 Oct 90	Ulysses	GPHS-RTG	Planetary/Solar	RTG still operating. Spacecraft in polar orbit (out of the ecliptic) around the sun.

^a All power sources are RTGs except for SNAP-10A.

^b Single launch vehicle with a double payload

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