Sputnik Shocks the United States Into Action

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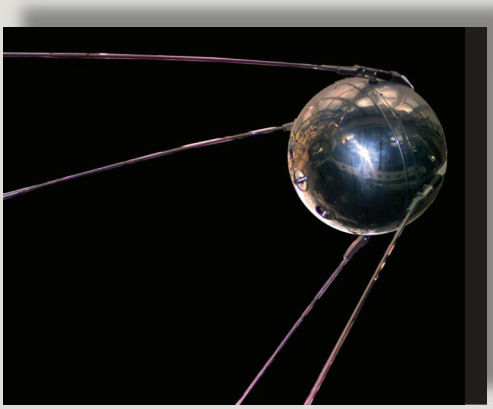


Sputnik (Russian for "Traveling Companion") was a 184 pound aluminum satellite 23 inches in diameter. It had a radio transmitter and four antennas which broadcast a clear series of "beeps" to the earth's surface.

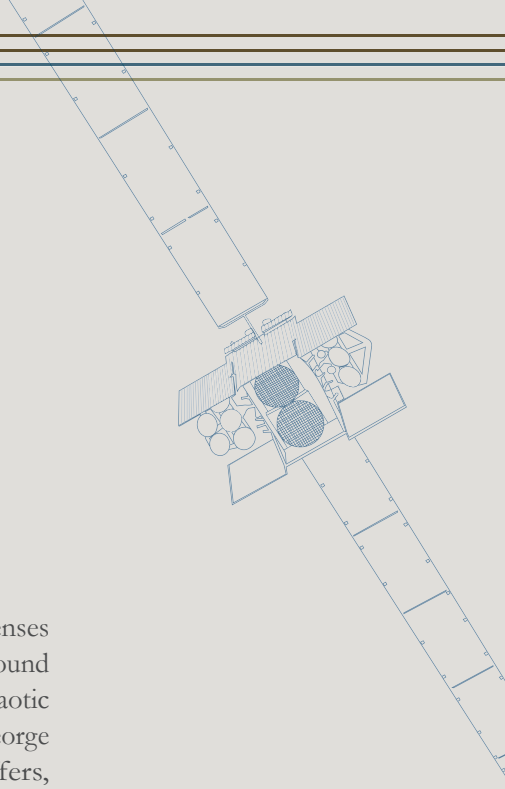
Although Oct. 4 is seldom recognized as a significant day in history by most people, the events of that day in 1957 forever altered the course of Soviet and American history. On that day, the Soviet Union surprised the world with the launch of the first "artificial moon" or satellite. Sputnik (Russian for "Traveling Companion") was a 184 pound aluminum satellite 23 inches in diameter. It had a radio transmitter and four antennas which broadcast a clear series of "beeps" to the Earth's surface. John Gibson, who was a 2nd Lt. posted to Redstone Arsenal, was assigned the duty of monitoring Sputnik's orbits and transmissions. The satellite was at an altitude of 560 miles and was making an elliptical orbit every 96 minutes. Gibson noted that it had "two radio transmitters on wavelengths of 7.5 and 15 meters … sending a continuously alternating or telegraph like signal with pulses being about 0.3 seconds apart."

The Russian satellite program and its American counterpart grew out of the International Geophysical Year 1957-1958 (IGY). The IGY was conceived by the International Council on Scientific Unions in 1952 and was intended to provide an internationally coordinated series of observations of various geophysical phenomena. Although 67 countries eventually became involved with the IGY, only the Soviet Union and the United States committed to developing artificial satellites as part of the program.

The Sputnik radio transmission served only one purpose, to broadcast Soviet success and to prove to the world that the satellite was indeed in orbit. Sputnik's career was short — it fell back to Earth only three months after it was launched. Despite its short life and limited ability, its affect on the world was immediate and long lasting.

Although the United States had been developing it own satellite, it was unaware that the Soviets had achieved so much, so soon in their own research. The Soviet technical achievement caught the world's attention and the American public completely off guard. Congressional and public outcry resulted with the correct perception that the Soviets had surpassed the United States scientifically.

Before the shock of Sputnik subsided, the Soviets launched Sputnik II on Nov. 3. At 1100 pounds, this satellite was six times the size of Sputnik I and carried "Laika" a small dog, the first living creature to go into Space. Laika survived the launch but perished when his oxygen supply was exhausted and the little dog became a martyr for the Soviet Space program. The Soviets touted



Sputnik II (or "Muttnik" as it was called in the American press) as a great achievement because none of its engineering tasks for this larger satellite had been started until after the launch of Sputnik I.

The continued success of the Sputnik program further inflamed public opinion on the government's lack of a Space program. Some scientists also suggested that the Soviet's ability to place an object in orbit translated to an ability to accurately target the United States and Europe with nuclear tipped Intercontinental Ballistic Missiles. The Sputnik surprise reinforced some pundits' contention that President Dwight D. Eisenhower was a golf playing incompetent who was mismanaging America's technological potential. G. Mennen Williams the Governor of Michigan wrote a poem about the Sputnik crisis:

Oh little Sputnik, flying so high
With made-in-Moscow beep
You tell the world it's a Commie sky
And Uncle Sam's asleep!

You say on fairway and on rough The Kremlin knows it all, We hope our golfer knows enough To get us on the ball.

Senate Majority Leader Lyndon B. Johnson recalled of Oct. 4, 1957: "Now, somehow, in some new way, the sky seemed almost alien. I also remember the profound shock of realizing that it might be possible for another nation to achieve technological superiority over this great country of ours." As a result of Sputnik, Johnson opened hearings of the Senate Armed Services Committee in late November 1957 to review the entire scope of American missile defenses and the Space program. The Committee found serious underfunding, redundancy and chaotic organization in America's Space efforts. George Reedy's, one of Johnson's Senate staffers, comments were typical of most Americans: "the simple fact is that we can no longer consider the Russians to be behind us in technology. It took them four years to catch up to our atomic bomb and nine months to catch up to our hydrogen bomb. Now we are trying to catch up to their satellite."

Although the White House had announced plans to place a satellite into orbit as early as July 1955, these efforts had received no serious attention or funding. After reviewing several proposals, the Navy's Vanguard program had been chosen over the Army's Explorer project based at Redstone Arsenal under Wernher von Braun. This changed after Sputnik when the Defense Department responded to the political storm and concurrently funded the Army's program.

Vanguard exploded on the launch pad on Dec. 6, 1957, much to the embarrassment of the Navy and the Defense Department. However, von Braun's Army team did what the Navy could not. With only about six weeks of preparation time, the Army's Explorer I lifted off the launch pad on top of a Jupiter C rocket from Cape Canaveral on Jan. 31, 1958. The United States Army had put America into Space for the first time, and Redstone Arsenal would forever be changed as it became the center of Army, and later NASA, rocket and missile technology development.

This article was taken from multiple sources contained in the Office of the Command Historian, U.S. Army Aviation and Missile Command.