

## Shock to the System

| BY PAUL DICKSON |

**FIFTY YEARS AGO I WAS A FRESHMAN** at Wesleyan University in Middletown, Connecticut. I was walking across the campus on a beautiful autumn evening and a friend of mine ran up to me and said, “The Russians just put a rocket in orbit.” He was nervous and we looked up and could see nothing of course, but we went back to the fraternity house and turned on the radio. NBC had just picked up this signal from a receiving station on Long Island, and the announcer said, “Listen now for the sound that will forevermore separate the old from the new.” And the beeping started. It was one of the most exhilarating moments of my life because I realized I was actually witnessing history. It was like being at the Battle of Hastings or the end of the Hundred Years’ War. **SPUTNIK’S VISIBILITY WAS** calculated. Its surface was polished, and it had mirrors. The Russians wanted people to see and hear it. The orbit was low enough to reflect the sun; you could pick up the beep on short wave. High school science clubs tuned in, becoming part of the mystique. A few nights later, the radio said, “The astronomer at Yale has just announced that Sputnik will be coming up the Connecticut River. It’s going to pass over New Haven, then Middletown, then Hartford.” That night, I stood on the football field and this glowing thing comes across the horizon. It was amazing. It was electric. **IT WAS ALSO A TREMENDOUS SHOCK.** People began to wonder, if they can throw this Sputnik over the Monongahela and the Mississippi and the Ohio Rivers, if they can keep sending this over America day after day, if they’ve got rockets that are that powerful, then they can send a missile right into the middle of Omaha. Armageddon from space was suddenly a reality. America and the Soviet Union were compared to two scorpions in a bottle. **THE THREE BRANCHES OF THE MILITARY** were fighting for control of the space program, but President Eisenhower, who had seen battle up close, believed that nuclear weapons should be in the hands of civilians, an idea that was carried on by President Kennedy. Eisenhower defined national security in terms of prosperity and goodwill in the world. One of the results of Sputnik was that instead of having a war, we had a race. The prize was the moon and the repercussions were far-reaching. The space race introduced massive public works programs. There was an unprecedented infusion of technology to both cultures.

**AMERICA IMMEDIATELY STARTED** pumping billions of dollars into education. The National Defense Education Act created huge numbers of new Ph.D.s, and summer institutes where teachers enriched their curricula, places that still exist today. The middle class was being squeezed out of education and suddenly there was a multitude of scholarships and a boost in graduate school enrollment. The renaissance wasn’t just in engineering and physics, but in education and other fields as well. It is a benefit we still enjoy today. **IN 1958, THE UNITED STATES** established the Defense Advanced Research Project Agency to prevent another surprise like Sputnik. The United States began spending money on very far-out technology, things that we couldn’t even imagine at the time. In this research lay the origins of micro-miniaturization, the beginnings of solar power, the seeds of the Internet. Sputnik is in the laptop. It’s in the cell phone. It’s in almost everything we see in

**“Sputnik is in the laptop. It’s in the cell phone. It’s in almost everything we see in modern life. The space race forced us to create new technology. I think we picked up a decade or two because of Sputnik. I think it compelled us to better ourselves.”**

modern life. The space race forced us to create new technology. I think we picked up a decade or two because of Sputnik. I think it compelled us to better ourselves. **THE RUSSIANS CHALLENGED US.** They criticized our materialism, our big cars, our color televisions, our princess phones. They seemed to be saying, all that matters is what you can do for humanity. Every year, the Soviet Union was graduating tens of thousands of women from their universities—engineers and doctors. How many women were at MIT in the late ’50s? How many were going into engineering? This was another area where Sputnik forced us to better ourselves. **THE REACTION TO CRISIS IS FASCINATING.** People talk about whether there’s a Sputnik moment out there, if there’s something lurking on the horizon that will galvanize us, if maybe there have been some missed chances, like Katrina, or the bridge collapse in Minneapolis. It is a hopeful thought, in a way, that there may be something, like that light in the sky, that can elevate us to a higher level of humanity.

Paul Dickson is the author of *Sputnik: The Shock of the Century*. Adapted from a speech at Northern Virginia Community College, October 2007.