

Sputnik college essay



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Despite growing racial disharmony, the United States was a fairly self-satisfied place in the 1950s. Then, on October 4, 1957, the world learned that the Soviet Union had successfully launched a 184-pound satellite into the earth's orbit.

Called Sputnik I, its radio transmitter emitted nothing more than electronic beeps, but it sent shockwaves through the American nation. Suddenly, The USSR, our adversary in the postwar world, the embodiment of godless communism, had demonstrated to the world its technological superiority. The launching of Sputnik began a "Space Race," in which the United States came in dead second during the early laps. The Soviets put a man, "cosmonaut" Yuri Gagarin, into orbit four years after Sputnik and almost a month before American "astronaut" Alan B. Shepard was launched on 15-minute suborbital flight on May 5, 1961. (Axelrod, 291) Sputnik, as the satellite was called, immediately became the symbol of Soviet technological achievement.

It signaled that the Soviet Union had overtaken the United States in the field of long-range missile technology. Although the Eisenhower administration had been collecting intelligence data indicating that the Soviets had been making rapid progress in the development of long-range ballistic missiles since July, the shock of Sputnik was profound: The United States had been challenged in the one field—science and technology—in which almost everybody had taken American preeminence for granted. Sputnik led to a wave of near-hysteria in the United States (which was paralleled by deep allied concern) about the perceived inadequacy of the nation's defense. People speculated that Eisenhower's economic policy and the country's poor

educational system had caused this crisis. Since 1955, the Eisenhower administration had anticipated the psychological and political impact that the first demonstration of a long range missile capability had caused.

Now Sputnik had confirmed the administration's worst fears. And before the first wave of anxiety had time to abate, the next shock was already agitating the nation. At the end of November, numerous press stories spread the word that a far from optimistic top-secret report to the president had been made in the NSC. The articles referred to the so-called Gaither report, which was presented to the president on 4 November 1957.

The report ended with a call for immediate action: " If we fail to act once, the risk, in our opinion, will be unacceptable. " Sputnik Shook Americans out their complacency. The 1960 presidential race, between Eisenhower's vice president, Richard M. Nixon, and a dashing, youthful senator from Massachusetts, John F. Kennedy, almost ended in a tie. Read about Satellite Nations Cold War But the nation rejected the proffered security of Eisenhower's man and instead voted into office a candidate who embodied a new energy, vigor, and challenge. Wenger, 154) Pressures Following the Flight of Sputnik It was not until 1957 that extraordinary concern about the teaching of reading began to manifest itself. This was undoubtedly due to an event of grave international significance—the launching of Sputnik, the first Russian satellite. Up until this time, the United States had possessed the most deadly weapon of warfare and had already sent a rocket 250 miles into space.

These achievements assured its supremacy as a nation able to defend itself against aggression. But now the Russians were developing atom bombs, and on October 4, 1957, they startled the world by sending Sputnik 560 miles into space where it began its orbit around the earth. The supremacy of the United States was now challenged by the technological achievements of another nation which avowedly was determined to establish world Communism. Education felt this challenge in all of its branches.

The Sputnik, which got the size of a beach ball, was the world's first artificial satellite contained two beeping radio transmitters that allowed observers to track its orbit. A decade earlier, the RAND Corporation had foreseen that the launching of the first artificial satellite to orbit the earth " would inflame the imagination of mankind, and would probably produce repercussions in the world comparable to the explosion of atom bomb. " RAND was right. A dazzling public relations victory, Sputnik's appearance demonstrated, according to the New Republic, that the USSR had " gained a commanding lead in certain vital sectors of the race for world scientific and technological supremacy. Future Sputniks informed Newsweek, " would be able to sight and even photograph just about every point on earth.

" Worse yet, cautioned the Chicago Daily News, " The day is not far distant when they could deliver a death-dealing warhead onto a predetermined target almost anywhere on the earth's surface. " As the title of a recent study called it, Sputnik was " the shock of the century. " (Smith, 290) Other Soviet successes and " first" in space followed hard on the heels of sputnik, fanning fears that " the Russians" were beating the Americans at what we believed we did best. Technology, after all, had become the deciding factor

in the Cold war superpower competition since 1949, when the Soviet Union had ended the U. S. ' s nuclear monopoly.

Less than a month after the alarm caused by Sputnik, the USSR put into space the much heavier 1, 120- pound Sputnik II, which carried on board scientific instruments and a dog named Laika. On April 12, 1961, Soviet science propelled the first man into space, Yuri Gagarin. In 1959, three Soviet space missions, Luna 1-3, sent back to Earth images of the far of the moon. The Soviet space program also launched the first space flight with more than one cosmonaut aboard. It accomplished the first space walk. And it boasted the first woman in space, Valetina Tereshkova.

Lunching of the Sputnik The launching of Sputnik inspired tremendous fears in the West, but enormous confidence in Soviet citizens, for the triumph complemented the " thaw" in cultural life, robust economic growth, and rising living standards that characterized the country following Joseph Stalin's death in 1953. His successor, Nikita Sergeevich Khrushchev, who remained in power until opponents ousted him in 1964, publicly denounced the " crimes" of the Stalin era at the Twentieth Party Congress in 1956, contributing to the heady optimism in the Soviet Union at the time. Not surprisingly, given the Cold War competition between the superpowers for the hearts and minds of the Third World, Soviet propaganda capitalized on the world's shocked reaction to Sputnik's launching, depicting the achievement as but one of many spectacular technological advances underway in the USSR. Although it dealt a blow to American prestige throughout the world, the launching of Sputnik did not prove Soviet technological superiority beyond the moment, and may ultimately have been

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a Pyrrhic victory of sorts for the USSR. For one thing, the achievement, as a soviet defector involved in the country's space program opined, " Suddenly imposed on the Soviet Union...the heavy [i.

e. , financial] burden of being a power in space. " Moreover, the crisis of confidence in the American way of life and values caused by the USSR's success in space galvanized the United States into action as it began to reinvent itself. Sputnik led to massive new funding to promote research in science, technology, and engineering, one consequence of which was the development of engineering, one consequence of which was the development of micro electronics and ultimately the computerization of out lives.

It brought about the creation of the National Aeronautics and Space Administration (NASA), charged with winning the space race. And it overhauled American education. (Raleigh, 2) Ten days after the Sputnik launch, members of the American Rocket Society suggested, that a civilian Space Agency be established to lead America's efforts in space exploration. On 21 November 1957 NACA would also make an appeal for a consolidated National Space Establishment. With the launch of Sputnik the President established a Presidential Committee and gave it two tasks.

First, it was to write an easy to read document for the American public explaining how and why America should explore space. Second, it was to look into the feasibility of establishing a national space science programme. This in its turn led the Committee to suggest that a new civil Space Agency be established using NACA as its basis. On 3 November 1957 the Soviets

launched Sputnik II. The launch phase went well but the world's second satellite failed to separate from the second stage of its launch vehicle. The failure to separate meant that cooling radiators on Sputnik II could not be deployed and, therefore, could not radiate the heat produced within the satellite to the vacuum of space.

The problem would have been a minor technical difficulty had Sputnik II not been carrying a smooth-hair terrier bitch named Laika, the first living creature to orbit Earth. Laika was housed in a pressurized container, which maintained her in an artificial environment. There were no plans to return her to Earth, but the failure of the radiators to deploy meant that she suffered terribly as she died slowly from heat exhaustion after a few days. Sputnik II re-entered the atmosphere and burned up on 14 April 1957. It was now clear to Western observers that Soviet space research was heading towards the goal of manned space flight.

(Catchpole, 55) Sputnik, the Media, and the Public Historians agree that the launch of Sputnik delivered a sudden jolt that redefined national goals and objectives concerning the exploration of space. James R. Killian Jr. , then MIT president and newly appointed chairman of Eisenhower's Presidential Science Advisory Committee, wrote, " AS it beeped in the sky, Sputnik I created a crisis of confidence that swept the country like a windblown forest fire.

Overnight there developed a widespread fear that the country lay at the mercy of Russian military machine and that our own government and its military arm had abruptly lost power to defend the homeland itself. New York

Times science journalist Walter Sullivan regarded Sputnik's impact as profound," having triggered a " shudder through large parts of the world. " In his judgment, much of the populace was thrown into " dismay and confusion. " Sentiments of wonder and excitement, which might otherwise have accompanied humanity's first venture into space, became swallowed in fear. (Marche 119)