PROFILE IN LEADERSHIP

Bernhard Schriever, Moral Courage, and the Birth of the Space Age

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There is a point at which innovation becomes transformation, and General Bernard Schriever is the man who moved the Air Force across that point. At a time when the nation's Air and Space Forces are looking toward innovation as an imperative means of maintaining their effectiveness, it is worth some study of Schriever, arguably the most innovative leader in the history of the Air Force and the creator of what has now become the U.S. Space Force.

There is little danger of Schriever becoming forgotten—the first man ever to have an Air Force Base named after him while still alive, the originator of processes and working relationships that still govern Air and Space Force acquisition programs, and most of all, a man of remarkable moral courage—willing to accept any risk and any burden to ensure the security of his adopted nation. There is, however, some risk that the ways and means by which he transformed the Air Force will become generalized memories over time as we focus on the visible outcome of his work—which is reflected today in every launch of every rocket and missile, military or civilian, by this nation.

A Sketch of General Bernard Schriever's Career

Schriever's remarkable career had a remarkable opening. He was born in Bremen, Germany, in 1910, and his first memories were of Zeppelin warships flying overhead, en route to their bombing runs over England. His father was an officer on a German ship and was interned in the United States in 1916. Determined to reunite her family, Schriever's mother managed to take her family to the Netherlands and sail to the United States on a neutral ship. The family eventually settled in Texas, and Schriever became a naturalized citizen in 1923. After graduating from Texas A&M in 1932, he joined the Army Air Corps in 1933. Providentially and fatefully, his first commander was Lt. Col. "Hap" Arnold, who would repeatedly play a role in Schriever's career in the coming years. With less than a year of service, Schriever flew in the disastrous few months of the Army's attempt to take over the U.S. mail in 1934. This experience

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reinforced a focus on effective systems and processes that he would retain for the rest of his life.

Schriever left the Air Corps in 1937 to become a pilot with Northwest Airlines but returned to the service at Arnold's urging in October 1938. Graduating from the Air Corps Engineering School in July 1941, he then took an advanced course in aeronautical engineering at Stanford University, graduating in June 1942 with a master's degree and a promotion to major. A month later, he was deployed to the South Pacific, where he would spend the following 33 months in a theater still remembered for its austerity, its terrible combat conditions, and the bitterness of the fighting among American, Japanese, and Australian forces. Major Schriever flew with the 19th Bomb Wing until it returned to the United States in early 1943. When word arrived of the wing's redeployment back home, General George Kenney—a legend in his own right—called Schriever into his office and told him, "I'm not letting you go home. I need as much engineering help as I can get out here." In the coming months, Schriever was designated the commanding officer of advanced headquarters for the Far East Air Service Command, supporting theater operations from Hollandia, New Guinea, Manila, and Okinawa. Schriever was promoted to colonel in December 1943, and as the war closed in the Pacific Theater had the nearly unique honor of observing the Japanese surrender on the deck of the battleship *Missouri*, among the very few Army Air Forces members to do so.

The end of the war brought a pell-mell demobilization across the armed forces, and Chief of Staff Hap Arnold was concerned that the Air Force would lose the relationship with the scientific community that had played such an important part in the path to victory. He appointed Colonel Schriever as the chief of scientific liaison for the Headquarters Army Air Forces, a position he filled for over three years, building relationships with the scientists engaged in defense programs that would help sustain Schriever for the following years. Probably the most noteworthy of his work in this period lay in his responsibilities as the liaison with the Scientific Advisory Board (SAB), working with Dr. Theodore von Karman in mapping long-term military requirements onto ongoing research and development.

After spending a year at the National War College, Schriever returned to the Pentagon in June 1950, serving another three-year tour as Assistant for Development Planning and earning his promotion to Brigadier General in June 1953. It was during a SAB meeting in March 1953 that Schriever learned of the possibility of designing a thermonuclear weapon—one light enough to be used with missiles that could be mission capable within a few years. That discovery would change the trajectory of his life. Schriever viewed the competition between the Soviet Union and the United States to field such weapons as a threat to the nation, and he devoted himself to conducting and winning the race to field nuclear-capable missile forces.

By that time, Schriever had been in the Air Force, off and on, for over 20 years. He had proved himself in combat, as a tireless and systematic planner, as a leader, and as an effective liaison with the scientific community. As significant as these accomplishments were, in retrospect they appear as a prologue to the final stages of his career, from 1954 to 1966.

He began his historic relationship with the Air Research and Development Command—later Air Force Systems Command—in June 1954, leading a group of officers who would establish the Air Force's ballistic and systems divisions: developing the missiles, ranges and support systems, and satellites that would establish the United States as a space power, serve as a mighty deterrent through the coldest days of the Cold War, and develop into commercial sectors that would transform the world. They accomplished all of this working out of the Western Development Division, formerly a parochial school in Inglewood, California.

Schriever's workload was almost unimaginable, as were his responsibilities and the stakes at play. Over the years 1954–1962, he was responsible for fielding the Atlas and Titan Intercontinental Ballistic Missile (ICBMs), the Thor Intermediate-Range Ballistic Missile (IRBM), and finally the Minuteman solid-fuel ICBM. Each demanded rigorous testing and separate logistics chains and launch sites, all of which fell within Schriever's responsibilities in command. President Eisenhower's decision to develop the National Air and Space Agency (NASA) created yet another set of demands, with the Air Force supporting NASA launches and the development of satellites. In a program that demanded stability and steady funding, Schriever found himself on a roller coaster, boosted by the Soviet Union's detonation of a hydrogen bomb in 1954 and by the launch of the Sputnik satellite in October 1957, but recurrently handicapped by budget cuts.

These systems all reflect a deeper aspect of Schriever's accomplishments: his managerial competence and creativity. Generally speaking, the extreme urgency of the moment provided Schriever with unique scope when designing his processes and management structure. He took full advantage of that scope of maneuver. Among his most basic decisions, his selection of a commercial firm, Ramo-Wooldridge Corporation, to carry responsibility for systems engineering and technical direction set the project on the right path and established a precedent for civil-military projects that has been repeated frequently through the years. Given the extreme pressure to meet deadlines, and the complexity of the systems under development, Schriever adopted the management philosophy of concurrency in fielding these new programs—developing the critical elements of the program in such a sequence that they would be completed when needed. It was a risky approach and an expensive one when concurrency failed, but it was necessary to make deadlines, and the nation could bear the cost given the stakes at play.

Schriever was granted nearly carte blanche by the Air Force in selecting his subordinates, but his success in doing so was again a measure of his professionalism and managerial skill. He built a devoted and effective team, all sharing Schriever's passion and stamina—two prerequisites for working under Schriever's direction.

Character, Leadership, and Transforming the Air Force

General Bernhard Schriever was a very distinct type of leader: not flamboyant, no real charisma, not an orator, just a man with extraordinary moral courage, ceaseless professionalism, unbelievable stamina, boundless technical and managerial expertise, and a clear vision of the role of space in future military operations.

Few commentators have emphasized his moral courage, but this seems the most powerful of his leadership characteristics. If he was convinced that his position was right and the issue mattered, he would stand up to anyone. That characteristic stands out most clearly in his relationship with General Curtis LeMay, another icon of the Air Force, the service's central figure during the first two decades of the Cold War, and probably the finest operator the service has ever had. LeMay and Schriever had a mutually respectful relationship, but that often didn't make things pleasant during their conversations. They clashed recurrently during the early 1950s, as the Air Force looked toward its future and the shape of its force structure. During that time, Colonel Schriever served as the Deputy Chief of Staff for Development, assessing the needs and requirements of the future force.

Their clashes were a combination of personality, mission, perspective, and style. LeMay was a bomber pilot and, by instinct and training, a superb operator. He was the living symbol of the Air Force through the 1950s, with immense power and prestige within the Air Force leadership. But he was skeptical of Schriever's management practices, dubious of his operational analyses, and dismissive of the value of missile warfare. In a recurrent pattern, from the rank of colonel to his arrival at the four-star level, Schriever found occasion to disagree with

LeMay, often at risk to his career. These clashes extended across a vast swath of major issues, including among others, the most effective method of inflight refueling, whether or not tactical forces should carry nuclear weapons, whether a nuclear-powered bomber was feasible, and the design and attack strategies of strategic bombers. In the end, the Air Force was big enough for both of them, but not by much. During the final years of their relationship, LeMay once pointed at Schriever's four-star insignia and commented, "If it was up to me, you wouldn't have those." Schriever replied, "I know."

Schriever's professionalism showed up in many ways. Perhaps the most remarkable was his stamina, which often blended into its near relative, resilience. His stamina was both physical and psychological. His work schedule during his years in Los Angeles, in particular, seems impossible. It was routine practice for him to work a full week, then fly Friday night to Washington, DC, returning in time for work on Monday. On a brighter note, he often invested his time on such trips to golf, a sport he had mastered in the early 1930s and used to good advantage throughout his career. The resilience shows up most clearly during the frantic days of the early Cold War, with the specter of Soviet domination looming over his program, as test after test failed, costs rose, and time shrank. His colleague Jacob Neufeld considered Schriever's two most significant attributes to be, first, "his calm, unflappable nature," and second, his "ability to persuade very senior and sometimes irascible officials to accept his views."

The best summary of Schriever's character, perhaps, is found in aligning it with the Leadership of Character framework that today shapes the Air Force Academy's leadership training. To an extent rarely found, Schriever lived honorably, with courage and discipline. He lifted those around him toward higher goals and higher achievements, inspiring and enabling those under his leadership. Most visibly, he elevated performance toward a noble purpose, one that has shaped and protected the world we live in.

Schriever's qualities are eternally useful to leaders and will be called on again as the U.S. military postures for the uncertain future that lies ahead. Under similar circumstances 65 years ago, Schriever lit a candle that still lights our world. The question that emerges is whether another Schriever will emerge, someone to bring clarity, vision, and burning passion to the task of adapting to the new strategic environment.

Further Reading

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