## Gen. Bernard A. Schriever



"There's no question, his [Arnold's] greatness was that he created the infrastructure. He visualized the kind of infrastructure that the Air Force needed to really get into the technology age."

In his role as the father of the Intercontinental Ballistic Missile (ICBM) program, General Bernard Adolph Schriever relied heavily on AEDC for crucial aerodynamic and rocket propulsion data.

A frequent visitor to the center, he also worked with AEDC Fellow Dr. Bernhard Goethert to form the University of Tennessee Space Institute (UTSI).

Schriever was born in Bremen, Germany, in 1910, the son of an engineering officer on a German ship line. He came to America in 1917, when his parents emigrated from Germany. He became a naturalized citizen in 1923 and graduated from Texas A&M in 1931 with a bachelor of science degree.

He was commissioned in the Field Artillery, but in July 1932 began flight training at Randolph Field, Texas, and earned his wings in June 1933.

Schriever went to Panama for duty at Albrook Field and in September 1937 left the Air Corps to fly as a pilot with Northwest Airlines. He returned to duty in October 1938 with the 7th Bomb group at Hamilton and a year later became a test pilot at Wright Field, Ohio, where he also attended the Air Corps Engineering School, graduating in July 1941.

He then took an advanced course in aeronautical engineering at Stanford University, was promoted to captain in April 1942, and earned his master's degree in June as a newly promoted major.

In January 1943, Schriever moved to the 5th Air Force Service Command in maintenance and engineering assignments, as a chief of staff, finally becoming commanding officer of advance headquarters for the Far East Air Service Command.

He was promoted to lieutenant colonel in August 1943 and to colonel that December.

After the war, Colonel Schriever's old boss, General Arnold, made him the chief of scientific liaison for the Air Force Deputy Chief of Staff-Materiel. General Schriever later wrote in the book *The U.S. Air Force in Space* that General Arnold made the move

because many of the scientists that helped make the huge technological breakthroughs achieved during the war were returning to their civilian jobs at universities and yet "we need to maintain a close and cooperative relationship with the scientific



Seventeen "stars" closely associated with the history of Arnold Center, (left to right) Lt. Gen. Don. Putt, Maj. Gen. Franklin Carroll, Gen. Bernard Schriever, Brig. Gen. Lee Gossick, Maj. Gen. Leif Sverdrup, Lt. Gen. Lawrence Craigie and Maj. Gen. Edward Powers.

## **General Bernard Schriever**

community. It is not enough to just have a close relationship with the aviation industry."

In his new job, Colonel Schriever worked with several of the scientists whose research formed the foundation of today's space programs, including the famous Dr. Theodore von Kármán, who had been asked by General Arnold to form the Air Force Scientific Advisory Group (SAG).

Colonel Schriever worked with the SAG, ensuring that they understood the goals of the nation's leadership, and ensuring that the government, in turn, gave the board what it needed.

Schriever graduated from the National War College in June 1950 and returned to Headquarters Air Force as assistant for evaluation in development.

He was promoted to brigadier general in June 1953.

Schriever was assigned to the Pentagon, where he later recounted the interest of military and civilian leaders concerning the feasibility of reconnaissance satellites, especially as the nuclear age began.

"Pearl Harbor had really given us a shock, especially because of the amount of damage inflicted by that surprise attack," Schriever said during a 1998 interview.

"President Eisenhower wanted us to determine how we could best get strategic intelligence to avoid a nuclear Pearl Harbor. That was the deciding issue in putting the Air Force into the space business."

Space took center stage on Oct. 4, 1957, when the Soviet Union launched the *Sputnik* satellite. The Air Force responded by sending *Discovery One* into orbit on Feb. 28, 1959.

The race to space included many successes and failures for both the ICBM and satellite programs. But Schriever said that he and his group accepted that they were taking risks because they knew that if they did not develop a long-range ICBM capability and satellite reconnaissance system, there would be a major instability in the strategic balance between the U.S. and the Soviet Union.

Schriever began his long association with Air Force Research and Development Command – later Air Force Systems Command – in June 1954 as assistant to the commander. The next month he headed a small group of officers who went to Los Angeles to organize and form what later became the Air Force's ballistic and systems division under Air Force Systems Command (which later became the Space and Missile Systems Center [SMC] under Air Force Material Command [AFMC]).

The end products were ballistic missiles such as Thor, Atlas, Titan and Minuteman and all of the aerospace systems that have been launched into orbit, including support for NASA's man-in-space programs. Schriever was promoted to two-star rank in December 1955, lieutenant general on April 25, 1959, and to full general on July 1, 1961. In April 1957, his picture appeared on the cover of Time magazine, which called him "America's Missileman."

Schriever retired in 1966, although



Considered the father of the Air Force's ballistic missile and space programs, Gen. Schriever addressed America's need for space superiority during the inaugural Air Force Office of Scientific Research and Astronautics Symposium in 1957.

he continued to act as an adviser for various corporate and government clients. In honor of his service, Schriever Air Force Base in Colorado Springs, Colorado, was named for him in 1998.

Schriever was recognized as an Honorary AEDC Fellow in 2004 for his pioneering efforts in shaping the Air Force and AEDC.

General Schriever passed away June 20, 2005, at the age of 94.



Gen. Schriever addresses the first convocation of the University of Tennessee Space Institute (UTSI).

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