

DR. THOMAS J. ELLER | CLASS OF 1961



Photographed by Lewis Carlyle

Honor Bound Cadet

Dr. Thomas J. Eller has dedicated his life in service to the Air Force Academy, the Association of Graduates, and the Air Force as an officer, scientist, leader and visionary. Soft spoken with a humble disposition, Eller made a visit to the AOG to reflect on his time at the Academy and discuss the many ways that this institution shaped his life.

“The Air Force Academy was very formative for me,” Eller recounts. “I learned about air power, leadership, knowledge of the Air Force and how to get along in it, and how to deal with people. I fall back on those lessons all the time. The most difficult challenge at USAFA was time management. There were untold number of things one had to get done perfectly in virtually no time. It was also a challenge dealing with difficult people. The ATOs, upper class cadets

and many of the instructors intended to be very difficult. But learning to deal with difficult people proved to be very valuable because it tailored my expectations on how to treat people. I knew how I would come across in boss mode, and that’s effected my whole career, both in the military and in civilian life. These lessons helped me become a better leader, remembering how I reacted to the leadership I encountered at the Academy.”

As a cadet, Eller served as Wing Operations Officer for 1st BCT, a cadet squadron commander, and was a Rhodes Scholarship finalist, graduating fourth in his class. “The AFA also instilled a need for absolute integrity,” Eller continues. “It’s the bedrock of any set of human relationships; we practiced that all the time here. The Honor Code was in full effect, so we were very conscious of the need for the truth throughout our time here.”

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Life in the Cockpit

After graduation, Eller went to pilot training and prepared to begin his service career during the height of the Vietnam War. As a C-7A Caribou pilot he accumulated 3,600 flying hours, including 891 combat sorties over Southeast Asia where he was awarded two Distinguished Flying Crosses and seven Air Medals. He also earned the Airman's Medal for leading a team fighting an ammunition-fueled barracks fire at Phu Cat Air Base. "The Air Force Academy emphasized that you have to focus on the mission," says Eller of his flying career. "It also emphasized that you have to do your best at everything you pick up, all the time. There's never a time to do a sloppy job on anything. Those traits carried over and that's the way I approach all of my professional life."

After returning home from the war Eller earned a master's degree from Purdue University and went on to become the first USAFA graduate assigned to the Astronautics and Computer Science department. He subsequently earned a Ph.D. in Aeronautics and Astronautics from the University of Texas where he was a distinguished graduate. Fully immersed in the technology of the era, he witnessed the gradual evolution of computers from their humble beginnings into the modern machines of today.

"I got to fly in the C-130 gunship test program back in 1971," Eller recalls. "It was the first digitally fire controlled system which used an onboard computer. We had used analog computers at the Academy, but the transition to digital was occurring. I don't know if you can find an analog computer today anywhere! The average cell phone has a more powerful computer in it than the entire Academy had for its mainframe in those days. The mainframe took up a room the size of a library and it had a whopping 32 kilobytes of memory. Today we worry about gigabytes and terabytes, not kilobytes!"

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Giving Back

Returning to USAFA, Dr. Eller served as Assistant Dean of the Faculty, and professor and head of the department. Elected by his peers, he is a Fellow of the American Astronautical Society and an Associate Fellow of the American Institute of Aeronautics and Astronautics. He chaired the original Military Space Doctrine Symposium, which paved the way for the formation of Space Command. He co-invented the GPS Magnetic Momentum Dumping System, increasing satellite lifetime by years. In corporate life, he continued his exceptional contributions to the aerospace field at Martin Marietta Aerospace and Kaman Sciences Corporation. During the first Gulf War, Dr. Eller and his team developed "Bilateration," used to predict the impacts of Scud missiles from Iraq into Israel.

Dr. Eller's monumental contributions to the Association of Graduates reach back to its inception. In 1966, he served on the committee that created the AOG. Eller remembers the early days of the Association, and the steps taken by the founders to begin making an impact on the history and heritage of USAFA. "One of our first objectives was to create a war memorial," Eller says. "We had guys dying in Vietnam. The war



After making the move from the temporary facility at Lowry Air Force Base, then-Cadet Tom Eller attends class at the Academy's permanent location in Colorado Springs.

memorial which now resides in the Cadet Area is the first thing we accomplished.”

He sat on the Board of Directors from 1969-1973, serving as Vice President and Acting President from 1975-1979, and President from 1979-1983. Dr. Eller was also the first graduate elected to the Falcon Foundation Board of Trustees.

“We started off pretty small,” Eller recounts, “but we had big dreams. In the early 1970s we held a committee to create the Commander-in-Chief’s Trophy. Later down the line when I become AOG president, we won the trophy in the fall of 1982, but it had not been presented by the President in quite a while. Eric Thorson ’67 had a high level position in Washington at the time and he put me in touch with the White House and we arranged to have the President present the trophy.”

Upon retirement, Dr. Eller has served his community as Founding Chairman of the Colorado Vietnam Veterans Leadership Program, Chairman of the Colorado 5th Congressional District Space Advisory Committee, trustee of the Colorado Springs Fine Arts Center Board, and a member of the AAS International Space Station (ISS) Utilization Technical Committee.

Legacies

Dr. Eller is the first of three generations of his family to graduate from the Academy, having inspired both his son and grandson to become graduates themselves in the classes of 1996 and 2011. Taking a moment to pass on some advice to cadets, Eller insists that the same core values which helped shape his generation are still every bit as important today.

“Kids coming out of the Academy today do a whole lot more than I did when I was there. The key to their success will be to have absolute integrity. It’s very difficult to have it in this modern age, but integrity is key. I believe that having a forward-looking attitude based on integrity will get these cadets off to a great start.”

Dr. Eller’s vision and leadership have had lasting impact on the Academy, the Air Force and the nation.