



## The “Most Memorable Moment”

by Glen Lazalier



AEDC has been an invaluable contributor to the security of our country for all of these 60 years and I have been privileged to be a part of it for 46 of those years. It is very difficult to select the “most memorable moments” or a time in which I felt “most excited” about my career at AEDC.

Should the occasions when we encountered difficulties that were solved by the application of brains, sweat and persistence in various mixes rise to the top? Or should those times in which we far exceeded expectations of the aerospace community be the ones that are most memorable? There has been a plenitude of both of these categories in my time at AEDC.

Early in my career (1966) AEDC tested the boilerplate second stage of the Apollo vehicle that placed the first man on the moon. The J-4 rocket test cell was the

premier rocket test cell in the world and made absolutely essential contributions to the knowledge base needed to get to the moon. Maybe that should be the “most memorable moment,” but, maybe not.

In the late 1960s and the early 1970s, the Rocket Test Facility morphed into the Engine Test Facility as the emphasis shifted to air breathing propulsion. I was extremely fortunate to play a role in the development of standardized test, analysis and evaluation methodologies for turbine engine compression stability. These methodologies are still in use in the development of every new turbine engine that the U.S. Air Force and the U.S. Navy will be using for decades to come. So perhaps that is the “most memorable moment,” but, maybe not.

In the early 1980s, the Aeropropulsion Systems Test Facility (ASTF) was brought on line as the absolutely top capability propulsion test facility in the world. Again, I was a part of the team that did that and now, some 30 years later ASTF is playing a vital role in the

development of the engines for the F-35, our latest strike fighter. Is that the “most memorable moment?” Maybe or maybe not.

Perhaps the “most memorable moment” involves those times when it fell my lot to lead an effort to understand a “failure” of a test article or one of our facilities.

Way back in 1973 one of the developmental engines for the Pratt & Whitney F100 engine family experienced a catastrophic failure in the T-4 engine test cell. We did not have all the current rules

concerning uninterrupted duration of work then so I was able to work from the time of my normal arrival at about 7 a.m. through the failure at about 11 a.m. that day until the close-of-business the next day (about 34

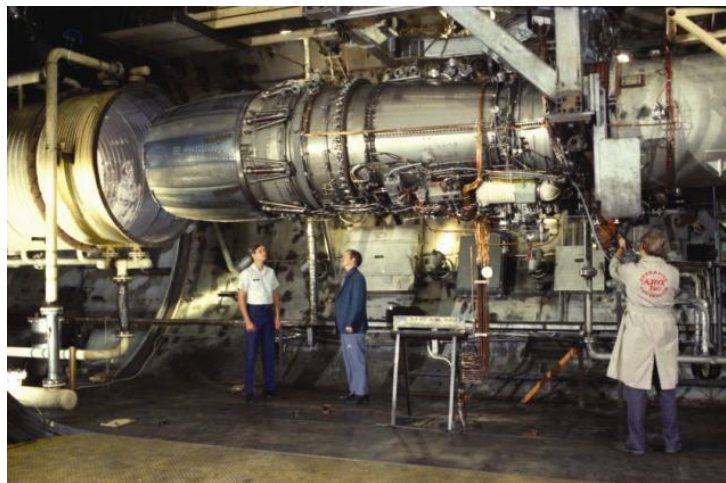
hours). But when we went home that day we knew the cause of the failure thanks to the dedicated team of analysts who worked alongside me over the whole period.

Or perhaps it was the time we encountered a violent unknown acoustic interaction in testing one of the early “X-serial numbers” of the Advanced Tactical

Fighter in an ASTF test cell in the late 1980s that threatened to stop testing of this vital system. A whole lot of people worked very hard to develop a workaround for that and, finally, after another around-the-clock effort we were successful. The final understanding of the phenomenon involved experts from NASA-Langley, Georgia Tech Research Institute, Florida State University and several of our own. But maybe that’s not it either.

Not all “most memorable moments” are associated with failures or unpleasant

problems. In the early 1980s, I was privileged to lead the analysis team for a Product Verification (PV) test of the General Electric F101 engine for the B-1 strategic bomber. We were on a very tight



GE's F101 turbofan engine between running cycles in a high-altitude test cell. Four of the 30,000-pound thrust class engines powered the B-1 strategic bomber when it made its initial flight.

schedule and thanks to the devoted efforts of all our folks we made it. My own schedule involved six consecutive 16+ hour days from Monday through Saturday (106 hours for the seven-day week). On Sunday afternoon we were ready to fly to Wright-Patterson AFB and present our conclusions (which were very well received because of

the high quality that AEDC has always delivered). Is that the “most memorable moment?” Perhaps or perhaps not.

From a personal perspective the most professionally enjoyable time for me was the 13 years I spent as chief engineer for the contractor (Sverdrup and later ATA). My job description was simple - “If it is dirty or broken, it belongs to me.” Many people taught me many things over that period. So, does that contain the “most memorable moment?” Maybe or maybe not.

In the final analysis, I cannot select a single time, event or action inside or outside the fence that constitutes the “most memorable moment.” Rather, I think of the aggregation of all those times, events and

actions that together are the very important consequences of working at AEDC. All of them were and are important to this country.

For me that single “most memorable moment” comes when I sit back and reflect on the opportunities afforded me to serve our country. It is then that I believe it is possible that because of something I did (with the help of many other skilled and dedicated people), one of our service members has (or some day will) come home walking on two feet instead of in a body bag.

May God continue to bless AEDC and its efforts to bring peace to the world.