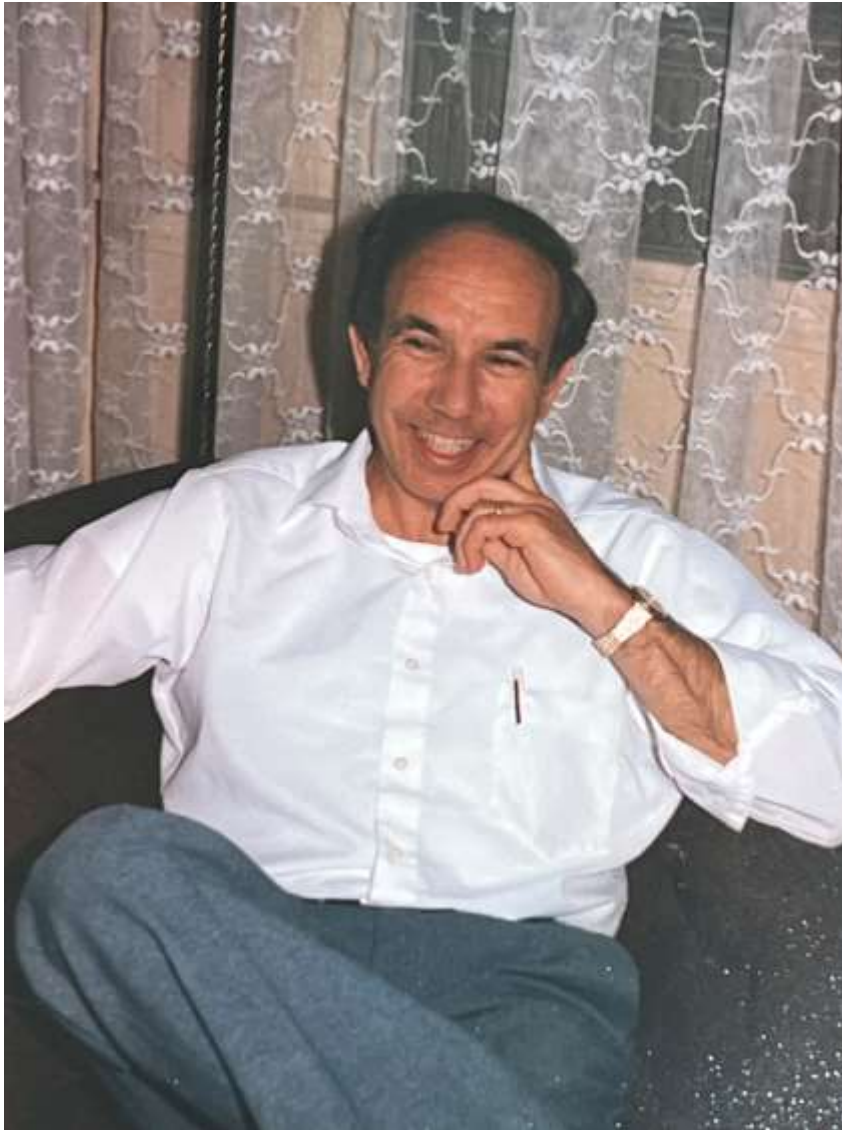


2023 AMTA Memorial Article Dr. Dean L. Mensa (1939-2023)



Dr. Dean L. Mensa, pioneer in the field of Radar Cross Section (RCS) measurements and high-resolution RCS imaging passed away on 8 July 2023 following a year-long illness. In 1951 at age 12, Dean immigrated with his mother from Pinerolo, Italy to Los Angeles, California. Upon graduation from Belmont High School in 1957, the United States Navy recruited Dean into Civil Service and supported his college education and development as an Engineer/Scientist at the Navy's Pacific Missile Test Center (PMTTC), Point Mugu, California. Through this support, Dean completed his Bachelor and Master of Science degrees in Electrical Engineering at the University of California Los Angeles in 1961. Dean married his high school sweetheart Judy in 1960 (he had to wait for her to graduate from high school) and they began their young family having three children: Denise, Debbie, and Dino.

During the early 1960s while working to improve performance of advanced airborne radars and radar-guided missiles, Dean created the first RCS measurement capability at Point Mugu, the success of which led the Navy in 1968 to fund a major upgrade of this capability with a new research building complex equipped with large anechoic RCS test chambers and support spaces called the Radar Reflectivity Laboratory. As Chief Engineer of the Laboratory, Dean's sharp intellect, incessant curiosity, and kind spirit led many young engineers and scientists over decades to work under his leadership and guidance at the Laboratory. Equally drawn to "Dean's Lab" were customers from across the Department of Defense (DOD) spanning the gamut of applications requiring advanced radar performance from ship and aircraft self-protection systems, ballistic and cruise missile defense, low observable system design and development, and many others.

During the mid-1970s while taking his second daughter Debbie to medical exams requiring CAT scans, Dean was captivated by the detail of the imagery and the helpful information that was rendered. It was there in the medical rooms that a new idea germinated in Dean's mind: could imagery be implemented in RCS measurements. Dean started this quest, but soon discovered that he would need more than advanced knowledge in radar instrumentation and electronics; he would need mastery of digital signal processing. To this end, with Navy support, Dean pursued a PhD in this discipline at the University of California Santa Barbara Department of Electrical Engineering with research dissertation: high-resolution radar cross section imaging. Upon his PhD graduation in 1980, the RCS world went from darkness into light; a singularity had occurred in the RCS community. For the first time, customers at Dr. Mensa's Lab could see exactly where the RCS reflections were coming from.

In 1994 Dean retired after 38 years from Civil Service at Point Mugu, but continued consulting as subject matter expert in RCS measurements and analysis up until a few years ago. Dean freely shared his knowledge over the years with the RCS measurement community, publishing over 200 technical reports and 25 technical papers in government, IEEE, AMTA, and other forums. Dean conducted or participated in numerous short courses at regional Universities. Over his career, Dean was awarded seven US Patents and wrote two textbooks about high-resolution radar cross section imaging in 1981 and 1991, respectively.

Among his many awards over the years, Dean received the Ventura County Chapter Sigma-Xi award for outstanding research in 1982, the Navy Meritorious Civilian Service Award in 1994, the Antenna Measurement Techniques Association Distinguished Achievement Award in 1995, and the IEEE Life Fellow Award for contributions to high-resolution radar cross section imaging in 2014.

In all of this, Dean never lost sight of his family whom he deeply loved. His family and friends will greatly miss him.

Fair winds and following seas dear friend.