AN/UYSK-43 Computer

The AN/UYSK-43 was the standard 32-bit computer of the US Navy for surface ship and submarine platforms, starting in 1984. The size of a refrigerator, it replaced the older AN/UYSK-7 Naval Tactical Data Systems (NTDS) computers. The UYSK-43 shared the same instruction set architecture as the UYSK-7 and AYSK-10 computers. Some 1,250 units had been delivered through year 2000. In 2008, NTDS software hosted on the UYSK-43 was successful in launching and guiding a missile to shoot an errant satellite out of the sky.

{Editor's note: The AN/UYSK-43 was designed and prototyped in the Sperry Defense Systems Eagan, MN facility. Production units were built in the Clearwater, FL facility - continuing through the Sperry to UNISYS merger and the UNISYS to Lockheed Martin divestiture.}

Illustrated at the left, one cabinet housed two CPUs, two IOCs, two IOA sets, dual power supplies, and numerous memory modules. An enhancement to the AN/UYSK-43, the Open Systems Module (OSM), allows up to six Type 6U VME bus commercial off-the-shelf (COTS) cards to be installed in a UYSK-43 enclosure.

The UYSK-43 in the photo [below] was either S/n 1 or 2, the water-cooled version - several months after the first UYSK-43 delivery noted on page 2.

From left to right, some of the development team were: Jerry Illi, Ken Larson, John Shelandar, Paul Richardson, Don Shore, Dan Rogers, John Mahoney, and Rod Turnquist.

Although AN/UYSK-43 computers and functions are gradually being replaced by the NTDS AN/UYSQ-70 dual display unit with embedded COTS modules, UYSK-43s will still be in use on a large number of USN and international Navies' ships well into the 2020s. Retired AN/UYSK-43 units are being cannibalized for repair parts to support these systems still in use.
MEMORANDUM

NOV 8, 1984

FROM: J. A. MALLOWE, PROJECT MANAGER, AN/UYK-43

TO: OUR FRIENDS AND ASSOCIATES IN THE UYK-43 FAMILY

C/O MR. D. DUNN

I AM HAPPY TO HAVE THIS OPPORTUNITY TO EXPRESS MY GRATITUDE, ADMIRATION AND RESPECT FOR YOU, THE UYK-43 TEAM. YOU REPRESENT A BODY OF TALENT AND EXPERTISE UNIQUE IN OUR WORLD. I AM GREATLY DISAPPOINTED THAT I CAN NOT BE WITH YOU TONIGHT TO HELP CELEBRATE THIS IMPORTANT MILESTONE IN OUR PROGRAM.

WE CELEBRATE TONIGHT OUR ONTIME DELIVERY OF WHAT IS CLEARLY RECOGNIZED AS THE THE MOST POWERFUL, MOST CAPABLE, AND MOST COMPLEX COMPUTER NOW AVAILABLE TO THE NAVY. WE HAVE STRUGGLED TOGETHER THROUGH A COMPLEX DEVELOPMENT PROCESS AND WE HAVE DONE WELL.

WE HAVE ONLY JUST BEGUN. I INTEND, THROUGH THE PROCESS OF TECHNOLOGY INFUSION AND PRODUCT IMPROVEMENTS, THAT THE UYK-43 WILL REPRESENT THE CENTERPIECE OF THE NAVY’S COMBAT DATA SYSTEMS FOR YEARS TO COME.

RECENTLY, I WAS ENORMOUSLY PROUD AND HUMBLED (YES, DON I CAN BE HUMBLE !) TO REPRESENT THE NAVY IN THE CEREMONY WHEN WE TOOK DELIVERY OF THE FIRST AN/UYK-43. I OFTEN HAVE THE OPPORTUNITY TO REPRESENT THE EFFORTS AND SUCCESSES OF YOU, THE UYK-43 TEAM, TO OUR CUSTOMERS. INCREASINGLY, IT IS RECOGNIZED THAT WE HAVE TOGETHER INTRODUCED TO OUR WORLD A NEW COMPUTER THAT WILL REVOLUTIONIZE NAVY COMBAT SYSTEMS.

THANKS AGAIN, TEAM, FOR YOUR TIRELESS EFFORTS. CONGRATULATIONS! PLEASE HOIST ONE FOR ME.

RESPECTFULLY,

JOE MALLOWE

P.S. CAPTAIN LEICHTWEIS SENDS HIS CONGRATULATIONS AS WELL!!

Formatting and editing by Lowell A. Benson – UNIVAC 1960 => UNISYS 1994