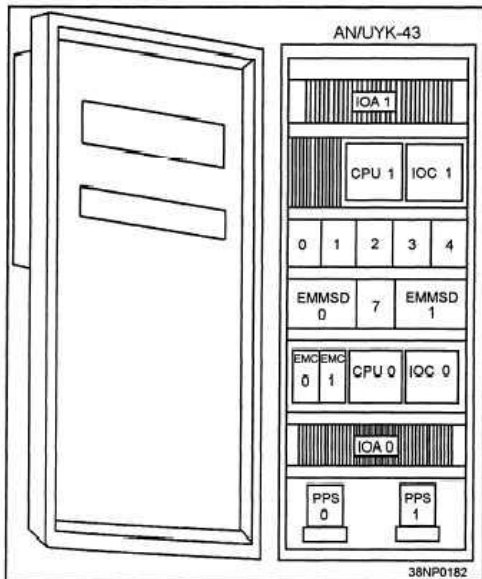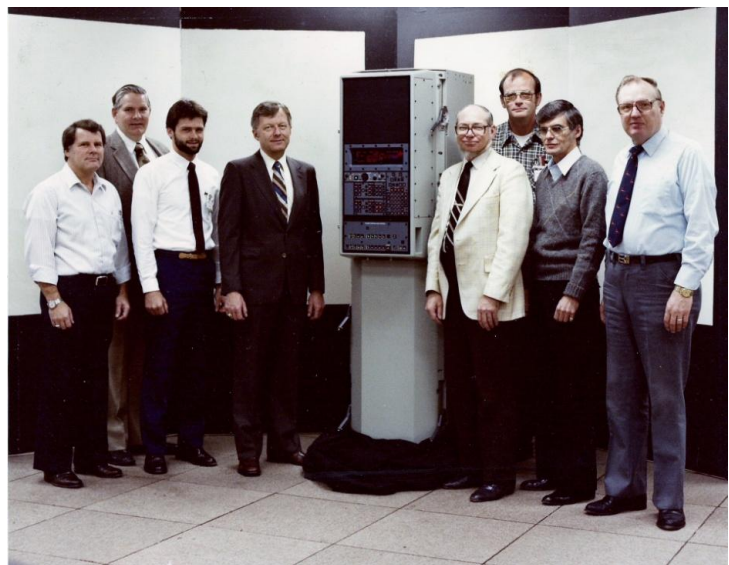# AN/UYK-43 Computer

The AN/UYK-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/UYK-7 Naval Tactical Data Systems (NTDS) computers. The UYK-43 shared the same instruction set architecture as the UYK-7 and AYK-10 computers. Some 1,250 units had been delivered through year 2000. In 2008, NTDS software hosted on the UYK-43 was successful in launching and guiding a missile to shoot an errant satellite out of the sky. {Editor's note: *The AN/UYK-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/UYK-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 UYK-43 enclosure.

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

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

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

http://vipclubmn.org

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON. D.C. 20362

IN REPLY REFER TO

MEMORANDUM   NOV 8, 1984

FROM: J. A. MALLONEE, 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 MALLONEE

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

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