The Enduring Legacy of the Naval Tactical Data System

While early incarnations of UNIVAC’s Naval Tactical Data (NTDS) system were successful, later versions proved to be just as capable, even exceeding expectations. The third generation of the NTDS system was the AN/UYK-43 computer. Designed at the Eagan plant, it allowed for numerous technology upgrades over its lifetime and was designed to fit onto the same mounting bolts as its predecessor, simplifying replacement. Coupled with the next generation naval minicomputer, the AN/UYK-44, these machines provided computing power to the Navy for several decades, on ships and submarines.

The legacy of the NTDS program survives to this day. The current incarnation and fourth generation of the NTDS system is the AN/UYQ-70 (or Q-70) program. Begun in the 1990s, it comprises a large family of computers, servers and systems that the Navy uses on approximately 90% of its commissioned ships. The computers are ruggedized and undergo stringent testing to withstand the harsh environment of life at sea. A huge success for Lockheed Martin, Q-70 units provide the main computing power for a ship’s numerous systems.

Left: A picture of the AN/UYK-43 (far right) and AN/UYK-44 (on table in middle) and other associated company products. The UYK-43’s various components were designed to work in concert with one another to provide a real-time response. In many situations, the seconds that this buys is critical.

Below: A picture of the dedication ceremony of the USS Minnesota, a Virginia Class submarine launched in 2013. Aboard is the 8,000th Q-70 unit delivered to the Navy in 2011 by Lockheed Martin.

Right: Three company employees standing around an AN/UYK-43, the third-generation NTDS computer. First put to use in 1984 these computers are gradually being replaced by AN/UYQ-70 units. However some UYK-43s will remain in service into the 2020s.

John Westergren
UYK-43 Engineer

From the VIP Club (retired employees) website

[The] innovations of the AN/UYK-43 pushed the available state-of-the-art [technology] beyond what was previously available.