

NEW EXHIBIT FEATURE

FROM ERA TO LOCKHEED MARTIN: MINNESOTA'S COMPUTER INDUSTRY

by Andrew Fox

Current visitors at the Lawshe Museum encounter a strange site in the Great Hall: large United States Naval computers, office memorabilia from the 70s, and a five-foot tall Japanese airplane computer. These are all artifacts from one of our latest exhibits entitled "From ERA to Lockheed Martin: Minnesota's Computer Industry." This initial exhibit chronicles the contributions of a family of companies, beginning in



Engineering Research Associates building, located at 1902 W. Minnehaha Ave. From the collections of the Dakota County Historical Society.

1946 in St. Paul as Engineering Research Associates and over 66 years had a lasting impact in Minnesota, including Dakota County, as well as the wider computing industry. ERA, whose primary focus had been designing computer systems for the United States military also designed products for other government agencies, civilian clients, and foreign militaries. Due to the classified nature of most of ERA's (and its successor companies') work, especially their early accomplishments, their contributions to the computer industry have largely gone unnoticed.

Working on the project has taught me a lot about the U.S. defense industry and the history of computers. It was also great fun. If you have not already done so, I encourage you to visit the Lawshe Museum to see this

exhibit where you'll be able to learn about the world of military computers and see the history of Minnesota's computer industry.

THE COMPANY'S HISTORY

The company was first called Engineering Research Associates (ERA) and was started by a group of naval intelligence officers who had served as code breakers in World War II. After the war, they were looking to continue their work in computing by acquiring government contracts. These individuals, including William Norris (who later founded Control Data Corporation), turned to John Parker who had run a glider manufacturing company in the Twin Cities during the war. Parker provided the manufacturing facilities and was able to secure commercial contracts for the company in addition to existing military ones.

Over the years the corporate name of the company and its Twin Cities branch name changed many times but its ingenuity endured; so much so that Minnesota could be called the "Silicon Valley" of the 1940s, '50s, and '60s. In the late 1940s ERA developed the Atlas, which was one of the first "true" computers, not just a calculating machine. ERA later got permission from the U.S. Department of Defense to build a commercial version of the computer and named it the "ERA 1101".

In 1966, the company (by this time called Sperry Rand) decided to expand by building a \$3 million facility in Eagan Township. "Univac Park" was to house the company's Univac Division, including approximately 800 of Univac's nearly 10,000 employees.¹ Subsequent expansions of this facility greatly increased its capacity and this site continued to be an important facility in designing U.S. Navy computers and systems.

Other important corporate changes occurred in 1986 when the company merged with Burroughs to become Unisys. In 1996, after a number of transitions, the company became a part of Lockheed Martin (LM).² In 2003, the Eagan facility officially became a part of the Maritime Systems and Sensors Division of LM and continued to provide undersea, surface and air applications to the US military and other clients.

In 2010 LM announced that it would be closing the Eagan facility at the end of 2012 in an effort to remain competitive in the marketplace and streamline the company. Lockheed executed the plan; by January 2013 the building was empty. Now all that remains of Lockheed Martin's Minnesota operations is the air traffic control facility.³ LM transferred well over half of their 1,000 Twin Cities employees to other company locations and let the remainder go. While the company presence in Minnesota is gone and its Eagan facility is bare – it is important to remember the legacy that ERA and its successor companies left behind.

DCHS EXHIBIT

After the plant-closing announcement in 2010, employees at the Eagan plant were interested in preserving the company's legacy. Since 2005 the VIP Club, a club for retired employees of Lockheed Martin and its predecessor companies, has organized a Legacy Committee which is devoted to capturing, cataloging, and publicizing the history of this family of companies. The Committee has done much to preserve the history of this company by conducting oral history interviews, gathering artifacts, and publishing a website, just to name a few.⁴

Not wanting to throw away important artifacts they had collected, as the Eagan plant was preparing to close



The author, accessioning in view.

they came in contact with the Dakota County Historical Society (DCHS) through a DCHS board member, Bernie Jansen, who is also a former employee of the company. When the Eagan facility finally closed in December of 2012, DCHS received approximately 20 pallets of artifacts of all shapes and sizes. The pallets contained a dozen large naval computers and workstations including the AN/UYK-44 computer as seen on the lower left. There were also over 100 archive boxes, some filled with pictures of company manufacturing facilities, more with product diagrams and statistics, and still more with company memorabilia and advertising brochures. Some of these artifacts and photographs date back to the early days of ERA while others document the company's more recent history. Including individual slides and photographs, there are over 50,000 items in this donation.

The present exhibit came about through a state legacy grant that DCHS received through the Minnesota Historical Society. The grant project was entitled: "Accessioning in View" and was intended to help DCHS process the huge quantity of artifacts in the donation while showcasing museum procedures which are normally done out of view of the public. Accessioning is the process of adding items to a museum's existing collection of artifacts. The process involves cleaning, researching, and cataloging artifacts. Each item is assigned a number and is properly stored in museum collections facilities. For this stage of the project which took place during the spring, summer, and early fall of 2013, I conducted the accessioning process in the Great Hall. Museum visitors could actually see me working with the artifacts, ask me questions about the process, and view some of the accessioned artifacts. Late last fall, with the grant period wrapping up I began working on the current exhibit. A number of display panels with



Guests at the VIP reception examine the exhibition.

history about the company were installed and more artifacts were put on display, including two early computers used by the U.S. Navy, which are on loan to DCHS.

Even though this first stage of the project is over, there is still plenty of work to do. Beginning just a little over a year ago, a number of VIP Club members volunteered to help the museum staff identify and sort through the many boxes of slides, pictures, and negatives included in the donation. These people are all retired mechanical, electrical, and systems engineers who are walking encyclopedias when it comes to the history of computers and the history of this family of companies. They have been instrumental in identifying artifacts and helping to catalog the huge number of photographs and slides in the donation – work that they are continuing to do. I have enjoyed working with them, learning from them, and hearing their stories.

In August of this last year, DCHS hosted a wine and cheese social at the Lawshe for the members of the VIP Club to celebrate the opening of the current exhibit. They got a chance to preview the exhibit and talk with DCHS board members and staff. Since then, the exhibit has been open to the public.

The next stage of the process is already in motion! DCHS has received another state legacy grant to fund digital preservation of photographs in this donation, further documentation of company history, and the construction of a photo exhibit with interactive features. We will again be assisted by the members of the VIP Club. The second stage aims to share the history of ERA and its successor companies with a broader audience. The photo exhibit will allow the possibility of having a traveling exhibit throughout Dakota County and

Minnesota and the digitized photos will allow us to reach many people online too. As we begin the next part of the project, I am excited for the work ahead and to share this story of innovation that happened right here in Dakota County!

ENDNOTES

1. Univac is an acronym for Universal Automatic Computer.
2. Unisys is an acronym for Universal Information Systems. Lockheed Martin (LM) is an aviation and defense company based in Maryland that has its roots in the Lockheed Corporation (founded in 1912) and Martin Marietta which merged in 1995 to become LM.
3. While LM's Minnesota operations came to a halt, the company still is one of the largest in the defense industry with over 100,000 employees and dozens facilities around the world.
4. The website www.vipclubmn.org is a fantastic resource for the history of this family of companies with detailed information about dozens of computers and systems that they produced.

CIVIL WAR WEEKEND

The Death Rattle of the Confederacy

September 6 & 7; 10 a.m. to 5 p.m.

Admission \$5 - \$8

Free for members!

LE DUC
HISTORIC ESTATE

1629 Vermillion Street
Hastings, MN 55033
(651) 437-7055