Local man part of communications efforts during Apollo 11 mission
by Patty Dexter Sun Thisweek Dakota County Tribune August 2, 2019

Tom Weyrick, a resident of Ecumen Centennial House in Apple Valley, holds a certificate of recognition he received for his work with Univac during the Apollo 11 mission. Photo by Patty Dexter

“The Eagle has landed.”

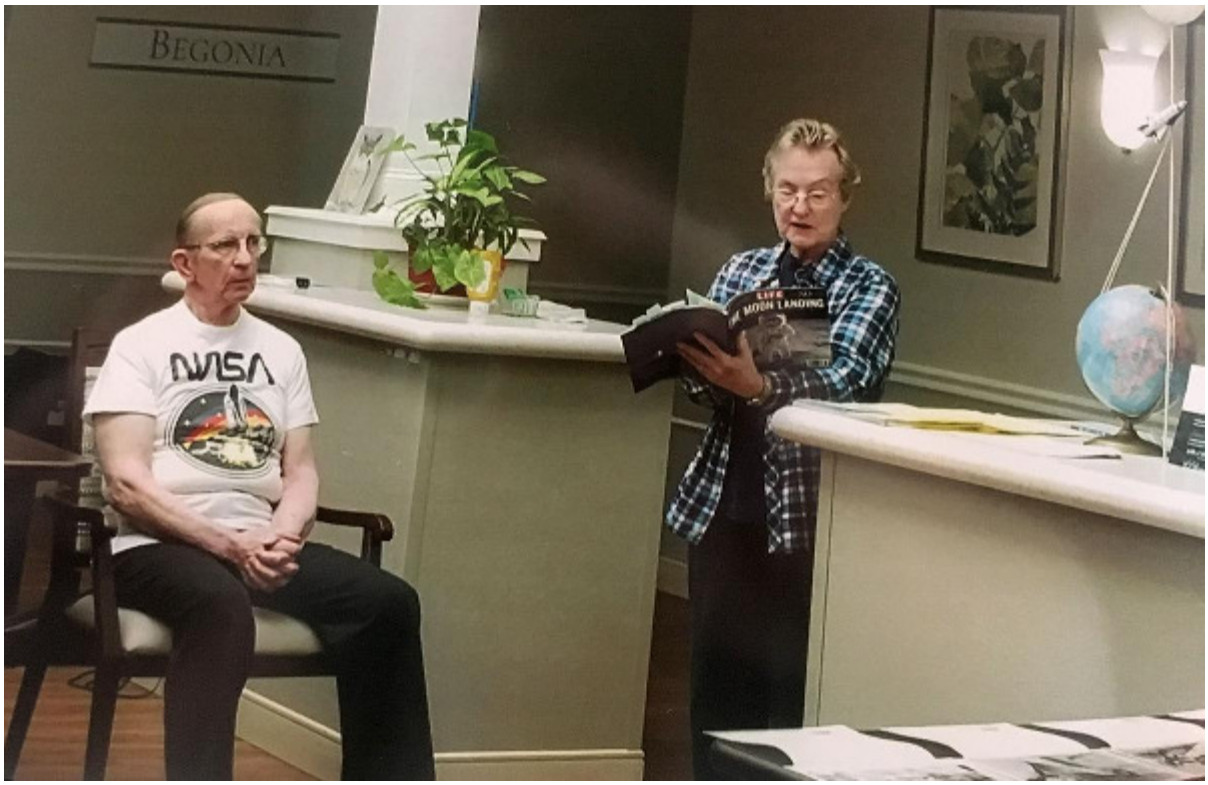
An estimated 650 million people watched Astronaut Neil Armstrong on television and heard his voice describing the events of the first humans landing on the moon on July 20, 1969, according to NASA.

What some of those people didn’t see was the behind the scenes preparations that went into the Apollo 11 mission and other space endeavors.

Tom Weyrick, a resident at Ecumen Centennial House in Apple Valley, is one of the thousands of people who did work with NASA’s Apollo program. He was employed with Sperry Rand Corp.’s Univac Division, which was contracted by NASA.

“It was exciting work and very interesting,” he said.

Ecumen Centennial House residents learned more about Tom’s work during presentations his wife, Joanne, gave on July 16 and 18.



Joanne Weyrick gives a presentation about her husband's work with Univac and NASA to Ecumen Centennial House residents in mid-July. Also pictured is Tom Weyrick.
Photo submitted

Joanne, who lives in Eagan, said she didn't know a lot of the details of her husband's work until recently. Certificates of appreciation he'd received for his work on multiple Apollo missions including Apollo 8 and 11 were displayed in Tom's room. Ecumen staff became curious, since the 50th anniversary of the first moon landing is being celebrated in 2019.

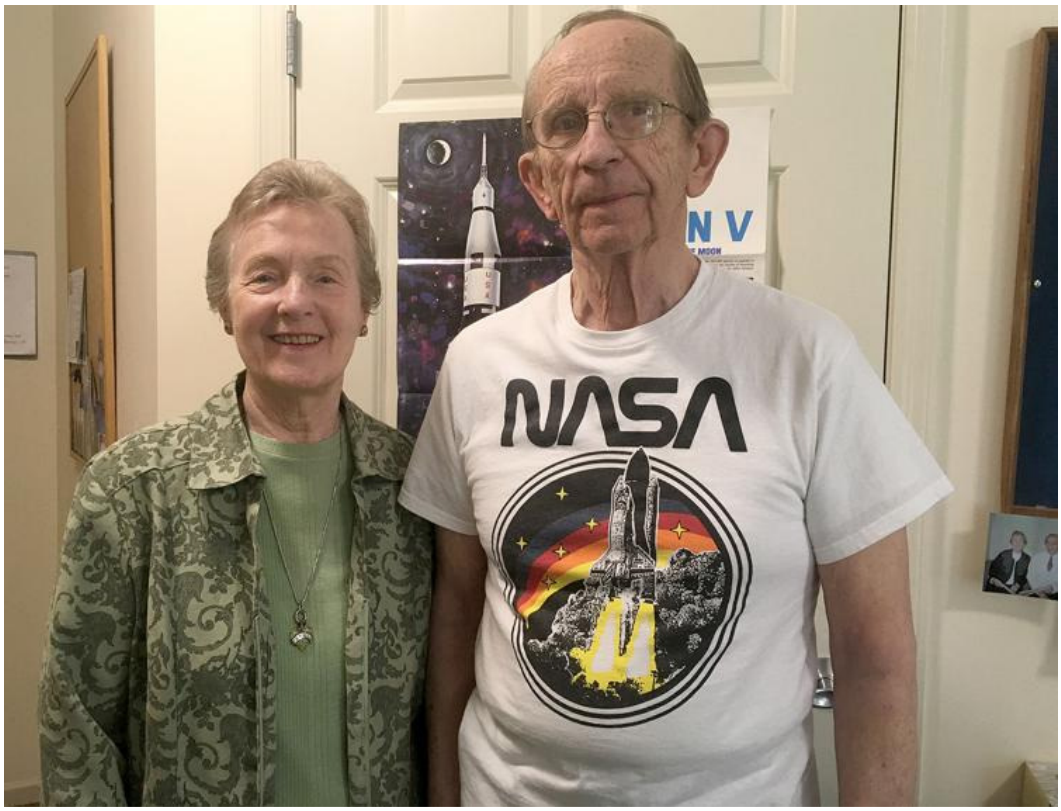
She was asked to present information about Tom's involvement, so she looked through the numerous files he'd kept at their home. Joanne discovered Univac reports he submitted to NASA, copies of NASA photos from different space missions, and Univac newsletters and photos describing Univac's work with the Apollo program.

"I'd honestly kind of forgotten about it. I just filed it away," she said.

Univac work

Joanne said Tom grew up in Grand Rapids and she grew up in Minneapolis. The couple, married since 1961, have three grown daughters and seven grandchildren.

Tom graduated from the University of Minnesota in 1961 with an applied math degree and got a job with Univac in Minneapolis, Joanne said. According to the company, Sperry Rand later merged with Burroughs Corp., eventually becoming Unisys. It still serves NASA today.



Joanne and Tom Weyrick have been married since 1961.
Photo by Patty Dexter

om was employed with the company for about 40 years, working on various projects with computers. The Weyricks lived in Greenbelt, Maryland, for eight years, where Tom worked at the Goddard Space Flight Center during the 1960s and Utah for two years, before moving to Eagan about 45 years ago. He retired around 2001, Joanne said.

Joanne said her husband worked with computers that handled telemetry.

“Telemetry is measuring angles and distances with electrical signals, so it had to do with communications. So, he worked on computers with handling communication from ground support to the space craft with the astronauts and back again,” she said.

According to Joanne, telemetry not only measured distances but recorded information ranging from an astronaut’s blood pressure to the strength of the Earth’s magnetic field.

“Telemetry kept track of everything,” she said.

Apollo 11

For Univac’s work with NASA, “more than 100 Univac computers controlled a worldwide communications network that served as the communications lifeline between the Apollo spacecraft and Mission Control at the NASA Manned Space Center in Houston,” Forest W.

Crowe, a Univac Federal Systems vice president and general manager said in a July 24, 1969, letter to employees.

This photo from Univac circa the 1960s, was stored in Tom Weyrick's files. The company's description attached to the photo says the picture shows a scientific computing complex that included five UNIVAC 1108 computers from Sperry Rand's Univac Division. The 1108s operated by the center's Computation and Analysis Division provided information including how much power, oxygen and other consumables remained in a spacecraft.
Photo submitted

A scanned copy of the letter is featured on vipclubmn.org, the website of the VIP Club, an organization for retirees and former employees of Unisys, Lockheed Martin and their heritage companies.

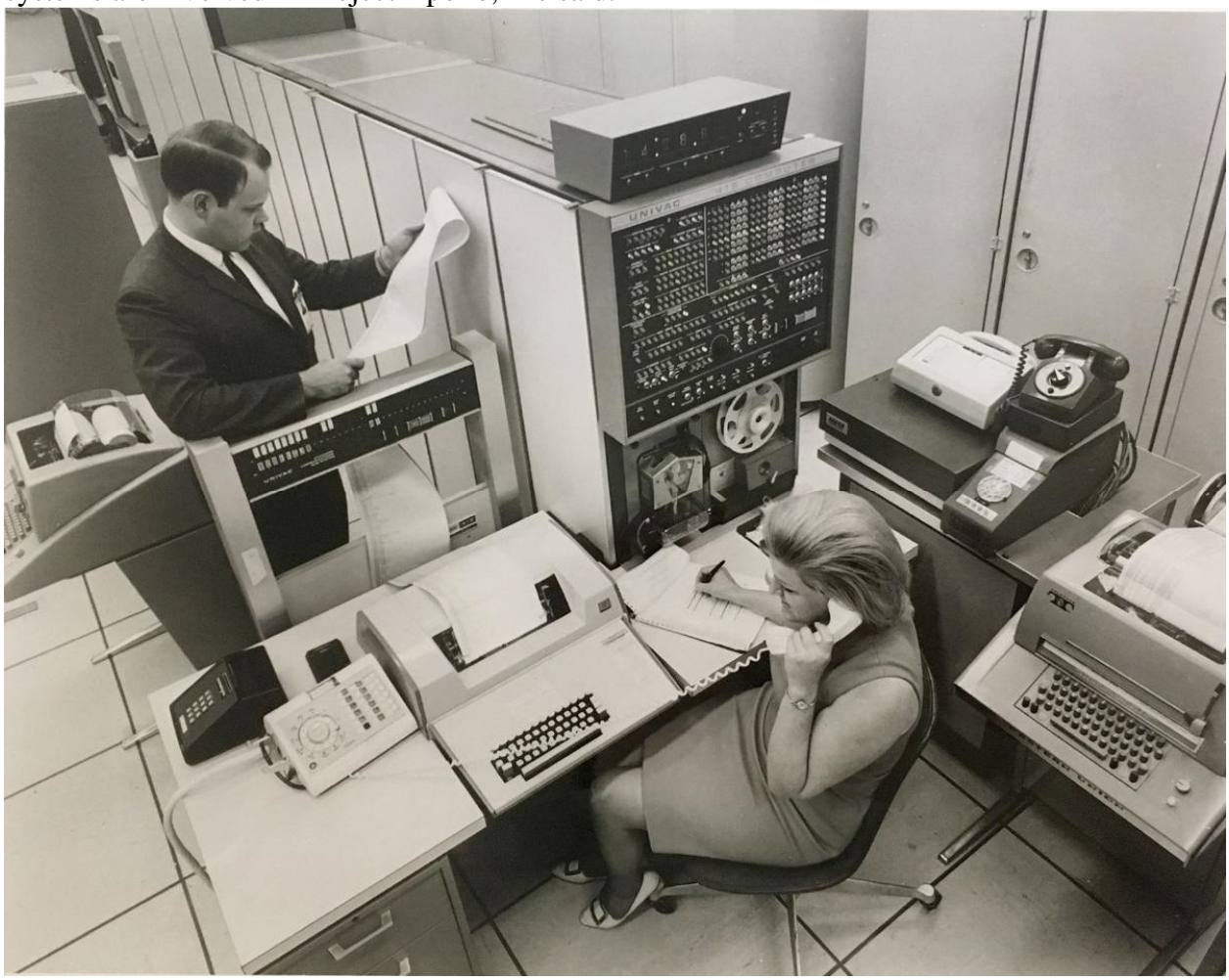
In the letter, Crowe said "virtually all" of the Univac computer systems were products of the Twin Cities Federal Systems Division and Data Processing Division operations. Thousands of Univac employees were involved with designing, building, testing, programming and maintaining these systems.

According to Crowe, UNIVAC 1230 computers processed data at 14 land-based and four shipboard remote sites in NASA's communications network during the Apollo 11 mission.

The data from the global stations was sent to the Goddard Space Center. There, "UNIVAC 494 Communications Processors routed it over ultra-high-speed lines to other 494s at the Houston Manned Space Craft Center. These 494s, in turn, routed the information to other computers in the center's real-time computer cortex for display on flight controller consoles," Crowe said.

Crowe said the spacecraft center in Houston had UNIVAC 1108 computers that performed different engineering and scientific calculations before, during and after all missions.

“In total, 48 642Bs, and 33 1218s, six 494s, seven 1108s and seven 418UNIVAC Computer systems are involved in Project Apollo,” he said.



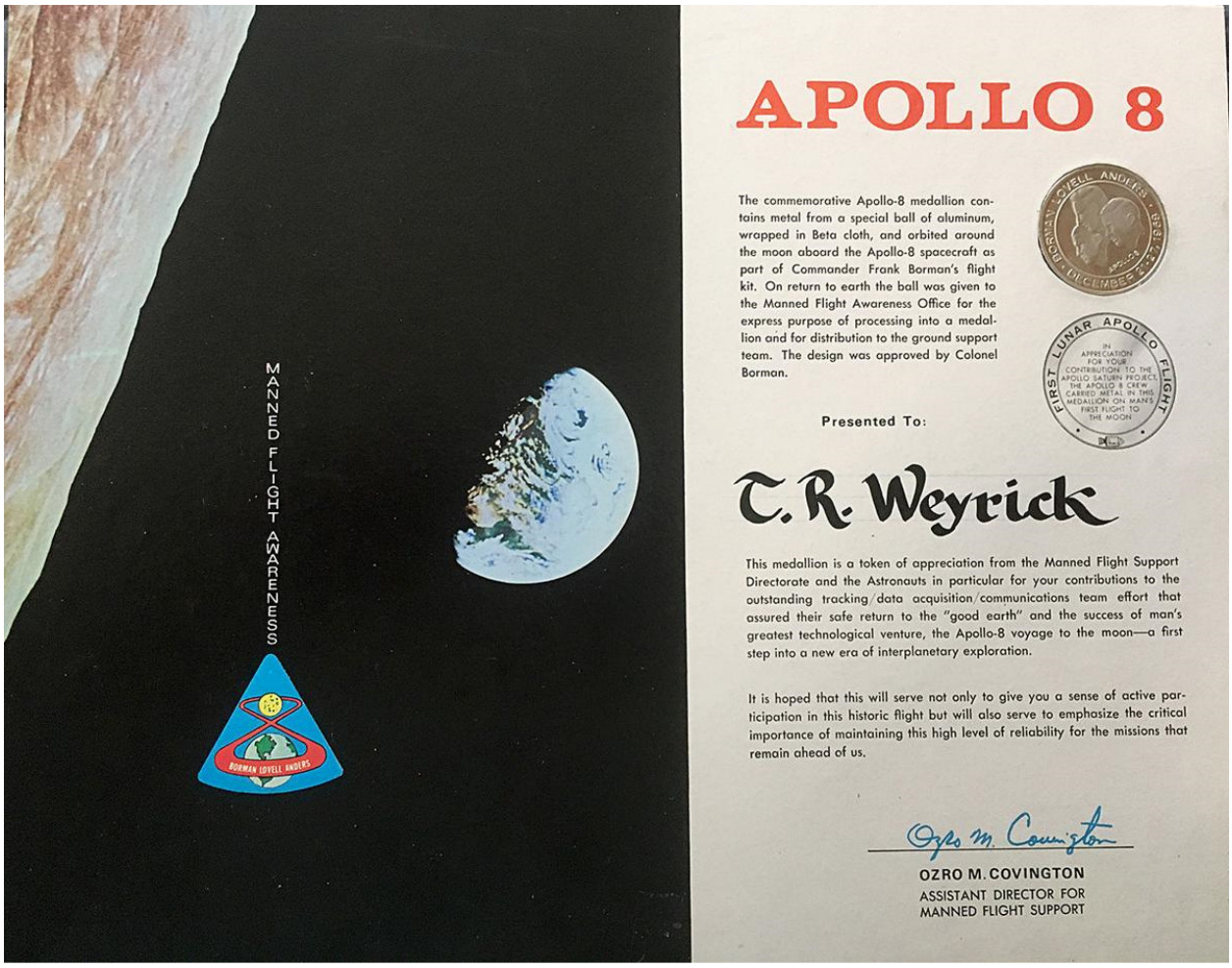
This photo from Univac circa the 1960s, was stored in Tom Weyrick’s files. Univac’s description attached to the photo says “Before Saturn-Apollo spacecraft are launched at Cape Kennedy, this UNIVAC 418 computer at NASA’s Manned Spacecraft Center in Houston processes data on the winds in the launch area. This data is further analyzed by UNIVAC 1108 computers at the center. This information helps scientists compute abort trajectories in the event of a malfunction during a launch. After the launch, the 418 and 1108s process other data on performance aboard the spacecraft. Both the 418 and 1108 are products of Sperry Rand Corporation’s Univac Division.” Photo submitted

At that time the computers took up an entire room and were “not little computers like today,” Joanne said.

Like many people, Joanne watched the first moon landing on television and said it was “absolutely thrilling.” Her daughters were 6 and 3 years old and 1 month old at the time. She

remembers setting them in front of the television, tapping on the TV screen and telling them to "Watch this, watch this," she said.

"I wanted to tell them some day, they saw the man walk on the moon," she said.



Tom Weyrick received this certificate for his work with Univac during the Apollo 8 mission. The certificate has a commemorative medallion that contains metal from a ball of aluminum wrapped in Beta cloth, and orbited around the moon aboard the Apollo 8 space craft as part of Cmdr. Frank Borman's flight kit. The ball of metal was given to the Manned Flight Awareness Office after Borman's return to Earth for the purpose of making medallions to be given to the ground support team. Photo by Patty Dexter

Joanne said a lot of people were awed by the event. Even with all the planning, there was always the possibility something could go wrong. She's proud of the work her husband was part of.

"All the things that had to be made and created and figured out; it's just amazing," she said.

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